

## Criteria 2- Teaching- Learning and Evaluation

### Key Indicator- 2.6 Student Performance and Learning Outcome

2.6.2 Attainment of POs and COs are evaluated.

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# ACHARYA INSTITUTE OF TECHNOLOGY

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Date: 15.07.2025

## Certificate of Authenticity

I hereby certify that all the supporting documents provided and uploaded under this metric are genuine, authentic, and accurately represent the intended information. Each document has been thoroughly reviewed and verified to ensure compliance with the applicable guidelines and Standard Operating Procedures (SOPs) of NAAC.

Principal

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ACHARYA INSTITUTE OF TECHNOLOGY  
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# ACHARYA INSTITUTE OF TECHNOLOGY

## OUTCOME BASED EDUCATION MANUAL



# ACHARYA INSTITUTE OF TECHNOLOGY

Affiliated to Visvesvaraya Technological University, Belagavi, Govt. of Karnataka.  
Approved by AICTE, New Delhi and Accredited by NBA and NAAC

## OUTCOME BASED EDUCATION MANUAL



Prepared By

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## PREFACE

This manual is a reference to help faculty members and Stakeholders to understand the Outcome Based Education (OBE) system implemented at Acharya Institute of Technology (AIT) since 2014. This manual provides a detailed description of Outcome Based Education implementation at all the four stages of educational process including Curriculum design, Teaching and Learning process, Assessment & Evaluation and Continuous quality improvement. Also it provides suitable guidelines for the faculty members to develop the course plan, assessment plan etc., in the process to measure the outcome of the students during their course of study and also after their graduation.

Outcome-Based Education (OBE) is an educational model that forms the base of a quality educational system. There is no single specified style of teaching or assessment in OBE. All educational activities carried out in OBE should help the students to achieve the set goals. The faculty may adapt the role of instructor, trainer, facilitator, and/or mentor based on the outcomes targeted. OBE enhances the traditional methods and focus on what the Institute provides to students. It show the success by making or demonstrating outcomes using statements "able to do" in favour of students. OBE provides clear standards for observable and measurable outcomes.

### **India, OBE and accreditations**

The induction of India in the Washington Accord in 2014 with the permanent signatory status of the National Board of Accreditation (NBA) is considered a big leap forward for the higher-education system in India. It means that an Engineering graduate from India can be employed in any one of the other countries who have signed the accord. For Indian Engineering Institutions to get accredited by NBA according to the pacts of the accord, it is compulsory that engineering institutions follow the Outcome Based Education (OBE) model.

The National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA) are the autonomous bodies for promoting global quality standards for technical education in India. NBA has started accrediting only the Programs running with OBE from 2013.

The National Board of Accreditation mandates establishing a culture of outcome based education in institutions that offer Engineering, Pharmacy and Management program. Reports of outcome analysis help to find gaps and carryout continuous improvements in the education system of an Institute, which is very essential.

## **Vision- Mission and Quality Policy**

### **Vision**

Acharya Institute of Technology, committed to the cause of sustainable value-based education in all disciplines, envisions itself as a global fountainhead of innovative human enterprise, with inspirational initiatives for Academic Excellence.

### **Mission**

Acharya Institute of Technology strives to provide excellent academic ambience to the students for achieving global standards of technical education, foster intellectual and personal development, meaningful research, ethical, and sustainable service to societal needs.

### **Quality Policy**

“We at Acharya Institute of Technology, promise to continually strive towards total quality in all our endeavours through Equity with Accessibility, Commitment with Honesty, Adaptability with Efficiency while blending Concern for Environment and Social Development”.

### **Motto**

“Nurturing Aspirations, Supporting Growth”

### **Core Values**

- Pursuit of Excellence
- Integrity and Transparency
- Leadership
- Teamwork

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### Abbreviations:

<b>OBE</b>	Outcome Based Education	<b>BTL</b>	Bloom’s Taxonomy Level
<b>LOT</b>	Lower Order of Thinking	<b>HOT</b>	Higher Order of Thinking
<b>PEO</b>	Program Educational Objectives	<b>PO</b>	Program Outcome
<b>CO</b>	Course Outcome	<b>PSO</b>	Program Specific Outcome
<b>UE</b>	University Theory Exam	<b>POE</b>	Practical Oral Exam
<b>CE</b>	Course Exit Survey	<b>HoD</b>	Head of Department
<b>PC</b>	Program Coordinator	<b>DAB</b>	Department Advisory Board
<b>PAC</b>	Program Assessment Committee	<b>A.Y.</b>	Academic Year

## 1. PRIMARY DEFINITIONS AND NOMENCLATURE

**Vision:** A vision statement is a document that states the current and future objectives of a Department. The vision statement is intended as a guide to help the department make decisions that align with its philosophy and declared set of goals.

**Mission:** The mission statement should define the broad purposes the program /department is aiming to achieve, describe the community the program /department is designed to serve, and state the values and guiding principles which define its standards.

**Program educational objectives (PEOs):** PEOs are broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve. Knowledge, Skill and Attitude are the three behavioral elements based on which PEOs are constructed.

**Program Outcomes (POs):** Program outcomes are statements that describe what students are expected to know and be able to do upon graduating from the program. These relate to the skills, knowledge, analytical ability, attitude and behavior that students acquire through the program.

**Program Specific Outcomes (PSOs):** Program Specific Outcomes are statements that describe what the graduates of a specific engineering program should be able to do.

**Course Outcomes (COs):** It is a detailed description of what a student must be able to do at the conclusion of a course.

**Course Information Sheet (CIS):** This sheet summarizes the information of a particular course and it gives the overall view of how the COs and POs are mapped in each unit.

**Continuous Internal Evaluation (CIE):** Continuous Internal assessment is a form of educational examination that evaluates a student's progress throughout a prescribed course.

**Semester End Examinations (SEE):** SEE means the examinations to be held at the end of each semester separately for theory & practical part on such dates as the University/College may determine.

**Attainment** is the action or fact of achieving a standard result towards the accomplishment of desired goals. Primarily attainment is the standard of academic attainment as observed by test or examination result.

## 2. OUTCOME BASED EDUCATION (OBE):

Outcome-Based Education (OBE) is an educational model that forms the base of a quality educational system. There is no single specified style of teaching or assessment in OBE. All educational activities carried out in OBE should help the students to achieve the set goals. The faculty may adapt the role of instructor, trainer, facilitator, and/or mentor based on the outcomes targeted. OBE enhances the traditional methods and focus on what the Institute provides to students. It shows the success by making or demonstrating outcomes using statements "able to do" in favor of students. OBE provides clear standards for observable and measurable outcomes.

Outcome based education (OBE) is a student-centred instruction model that focuses on measuring student performance through outcomes. Outcomes include knowledge, skills and attitudes. Its focus remains on evaluation of outcomes of the program by stating the knowledge, skill and behavior a graduate is expected to attain upon completion of a program and after 4 years of graduation. In the OBE model, the required knowledge and skill sets for a particular engineering degree is predetermined and the students are evaluated for all the required parameters (Outcomes) during the course of the program.

### Benefits of OBE

- **Clarity:** The focus on outcome/ creates a clear expectation of what needs to be accomplished by the end of the course.
- **Flexibility:** With a clear sense of what needs to be accomplished, instructors will be able to structure their lessons around the student's needs.
- **Comparison:** OBE can be compared across the individual, class, batch, Program and Institute levels.
- **Involvement:** Students are expected to do their own learning. Increased student involvement allows students to feel responsible for their own learning, and they should learn more through this individual learning.

### Features of OBE

- OBE is an educational process that focuses on what students can do or the qualities they should develop after they are taught.
- OBE involves the restructuring of curriculum, assessment and reporting practices in education to reflect the achievement of higher order learning and mastery rather than accumulation of course credits.
- Both structures and curricula are designed to achieve those capabilities or qualities.

- Discourages traditional education approaches based on direct instruction of facts and standard methods.
- It requires that the students demonstrate that they have learnt the required skills and content.

#### **Deficiencies in Traditional education**

- Provides students with a learning environment with little attention to whether or not students ever learn the material.
- Students are given grades and rankings compared to each other – students become exam oriented or CGPA driven.
- Graduates are not completely prepared for the workforce.
- Lack of emphasis on soft skills needed in jobs e.g. communication skills, interpersonal skills, analytical skills, working attitude etc.

#### **Expectations of students under OBE – the outcome**

- Students are expected to be able to do more challenging tasks other than memorize and reproduce what was taught.
- Students should be able to: write project proposals, complete projects, analyze case studies, give case presentations, show their abilities to think, question, research, and make decisions based on the findings.
- Be more creative, able to analyze and synthesize information.
- Able to plan and organize tasks, able to work in a team as a community or in entrepreneurial service teams to propose solutions to problems and market their solutions.
- Students should be enriched on three dimensional scales of knowledge, skill and attitude throughout the course.

### **3. PROCESS OF DEFINING VISION AND MISSION OF THE DEPARTMENT**

The following steps are followed to establish Vision and Mission of Department.

**Step 1:** The Vision & Mission of the Institute is taken as the basis.

**Step 2:** The Department conducts brain-storming sessions with the faculty and Department Academic Committee (DAC) on the skill-set required by the local and global employers, Industry Advances in Technology and R & D, and the draft copy of the Vision and Mission of the Department is drafted.

**Step 3:** The department circulates these statements among the stakeholders of the programme such as Industry, Faculty, Alumni, Parents & Employer and collects the views to refine the draft Vision and Mission statements.

**Step4:** Department Academic Committee (DAC) based on stakeholder's feedback revises the draft version based on their inputs.

**Step 5:** These draft statements are forwarded to the Department Advisory Board (DAB) to look into the relevance and consistency with the Vision and Mission of the institute.

**Step 6:** The accepted views are analysed and reviewed by IQAC to check the consistency with the vision and mission of the institute.

#### **4. PROCESS OF DEFINING PSOs AND PEOs OF THE DEPARTMENT**

- The Program curriculum is adopted as per university regulation since we affiliated to VTU, Belagavi
- Inputs are obtained from alumni and other stake holders. Also the inputs are considered from reports like WEF's Future of Jobs, India skills, FICCI and Deloitte.
- Besides, a skill in demand analysis is carried out periodically at the Academic council, Programme Assessment Committee and Department Advisory committee to identify the core areas in the Program domain that are consistent with industry needs.
- The Centre of Excellence in the department is established based on core areas in the program.
- PSOs are defined based on the Centre of Excellence of the Department. A list of 2 to 4 Program Specific Outcomes (PSOs) that the graduates of the program will attain will be listed here.
- The PEOs are established to reflect the career and professional accomplishments of the graduates based on the three behavioral elements of Knowledge, Skill and Attitude.

#### **5. THE PROGRAM OUTCOMES (POS) DEFINED BY NATIONAL BOARD OF ACCREDITATION (NBA)**

The POs essentially indicate what the students can do from subject-wise knowledge acquired by them during the program. As such, POs define the professional profile of an engineering graduate. NBA has defined the following twelve POs for an engineering graduate. These are in line with the Graduate Attributes as defined by the Washington Accord.

1. **Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, an engineering specialization to the solution of complex engineering problems.
2. **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
3. **Design/Development of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems.
5. **Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The Engineer and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a

member and leader in a team, to manage projects and in multidisciplinary environments.

12. **Life-long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

## **6. PUBLICATION AND DISSEMINATION:**

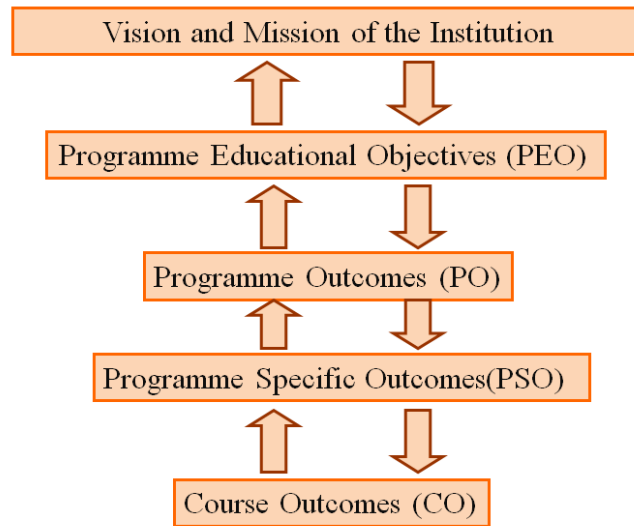
The Vision, Mission statement of the Department and Institution, CO statements, PSO statements, PO and PEO statements are reached to all the students and stake holders of the department. The process of publication and dissemination is described below.

- College Website
- Principal Room
- Department
- HOD Chamber
- Laboratories
- Department Library
- Classrooms
- Lab Manuals
- Course files
- News Letter
- Department Magazines

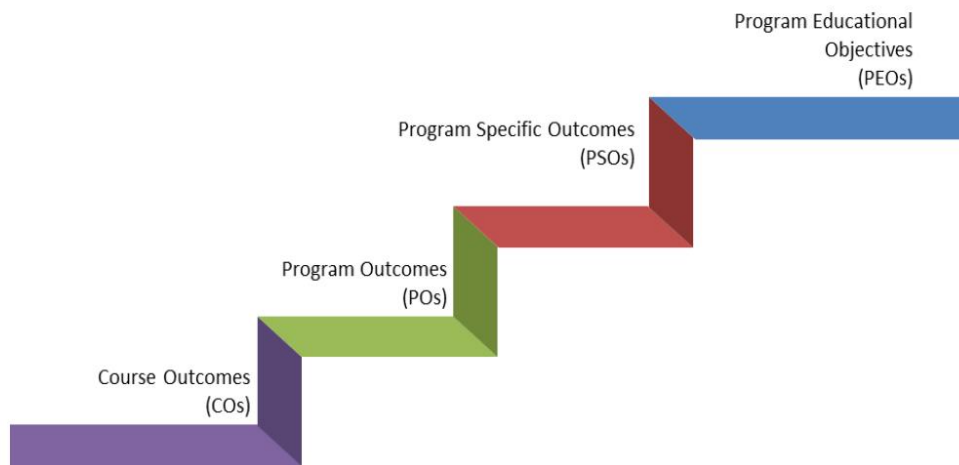
## **7. OBE FRAMEWORK**

The OBE model measures the progress of the graduate in four parameters, which are

- Program Educational Objectives (PEO)
- Program Specific Outcomes (PSO)
- Program Outcomes (PO)
- Course Outcomes (CO)



**Figure 1. Parameters of Outcome Based Education (OBE)**



**Figure 2: Process for the evaluation of Programme Outcomes POs, PSOs and PEOs**

## OBE Framework for an Institute



## 8. COURSE OUTCOME STATEMENTS

Course Outcomes (COs): Statements indicate, what a student can do after the successful completion of a course. Every Course leads to some Course Outcomes. The CO statements are defined by considering the course content covered in each module of a course. For every course, Course outcomes are written module wise and there may be 5 or 7 COs. The keywords used to define COs are based on Bloom's Taxonomy.

**Well-written course outcomes involve the following parts:**

1. Action verb
2. Subject content
3. Level of achievement as per BTL
4. Modes of performing task (if applicable)

**Illustration:**

Students are able to

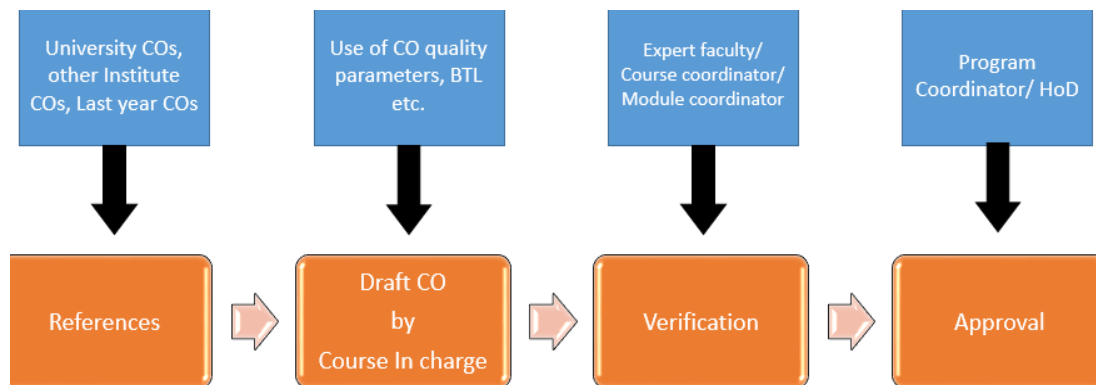
- 1) Design column splices and bases → action verb (underline)
- 2) Determine the losses in a flow system → Subject content
- 3) Use structural analysis software to a competent level. → level of achievement
- 4) Present seminar on real life problems → Modes of performing task with action verb

***While writing COs the following questions/points must be addressed properly.***

<b>Specific</b>	Is there a description of precise behavior and the situation it will be performed in? Is it concrete, detailed, focused and defined?
<b>Measurable</b>	Can the performance of the outcome be observed and measured?
<b>Achievable</b>	With a reasonable amount of efforts and application can the outcome be achieved? Are you attempting too much?
<b>Relevant</b>	Is the outcome important or worthwhile to the learner or stakeholder? Is it possible to achieve this outcome?
<b>Time-Bound</b>	Is there a time limit, rate number, percentage or frequency clearly stated? When will this outcome be accomplished?

## Quality of Course Outcome

Process at department level to maintain quality of CO



## BLOOM'S TAXONOMY

Bloom's Taxonomy was created in 1956 under the leadership of educational psychologist Dr. Benjamin Bloom in order to promote higher forms of thinking in education, such as analysing and evaluating concepts, processes, procedures, and principles, rather than just remembering facts. It is most often used when designing educational, training, and learning processes. Bloom's Taxonomy should be applied when creating objectives. At the end of the learning process, the goal of Bloom's taxonomy is that a student has sharpened a new skill, level of knowledge, and/or developed a different attitude towards the subject.

Bloom's Taxonomy comprises of three learning domains: cognitive, affective, and psychomotor. Designers, trainers, and educators often refer to them as KSA (Knowledge [cognitive], Skills [psychomotor], and Attitudes [affective]). After a learning experience, the learner should possess a new skill, knowledge, and/or attitude. The Figure presented here depicts the hierarchy of skills in the cognitive domain.

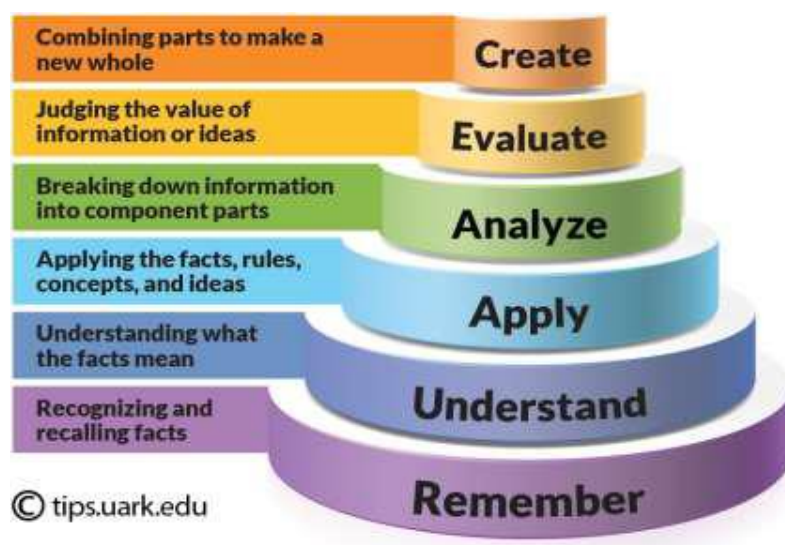


Figure 3: BLOOM'S TAXONOMY

<b>Blooms Taxonomy</b>		
<b>Domains</b>	<b>Keywords</b>	<b>Example</b>
<b>Remembering:</b> Recall or retrieve previous learned information.	Defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces selects, states	Recite a policy. Quote prices from memory to a customer. Recite the safety rules.
<b>Understanding:</b> Comprehending the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words.	Comprehends, converts, defends, estimates, explains, extends, generalizes, gives an example, infers, interprets, distinguishes, paraphrases, predicts, rewrites, summarizes, translates	Rewrite the Principles of test writing. Explain in one's own words the steps for performing a complex task. Translate an equation into a computer spreadsheet.
<b>Applying:</b> Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the workplace.	Applies, changes, computes, constructs, demonstrates, shows, discovers, modifies, manipulate, operates, predicts, produces, prepares, relates, solves, uses	Use a manual to calculate an employee's vacation time. Apply laws of statistics to evaluate the reliability of a written test.
<b>Analyzing:</b> Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences.	Analyzes, breaks down, relates, compares, contrasts, diagrams, differentiates, identifies, illustrates, discriminates, distinguishes, infers, outlines, selects, separates deconstructs,	Troubleshoot a piece of equipment by using logical deduction. Recognize logical fallacies in reasoning. Gathers information from a department and selects the required tasks for training.
<b>Evaluating:</b> Make judgments about the value of ideas or materials.	Appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, evaluates, explains, interprets, justifies, discriminates, summarizes, supports, relates,	Select the most Effective solution. Hire the most qualified candidate. Explain and justify a new budget
<b>Creating:</b> Builds a structure or pattern from diverse elements. Put	Categorizes, combines, compiles, composes, creates, devises, designs, explains,	Write a company Operations or process manual. Design a machine

parts together to form a whole, with emphasis on creating a new meaning or structure.	generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes	to perform a specific task. Integrates training from several sources to solve a problem. Revises and process to improve the outcome
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The cognitive process dimensions- categories					
Lower Order of Thinking (LOT)			Higher Order of Thinking (HOT)		
Knowledge	Understand	Apply	Analyse	Evaluate	Create
Recognizing (identifying)	Interpreting	Executing	Differentiating	Checking (coordinating, detecting, testing, monitoring)	Planning
Recalling (retrieving)	Illustrating	Implementing	Organizing	Critiquing (judging)	Generating
	Classifying		Attributing		Producing (construct)
	Summarizing				
	Inferring (concluding)				
	Comparing				
	Explaining				



The Knowledge Dimension			
Concrete Knowledge		Abstract knowledge	
Factual	Conceptual	Procedural	Metacognitive
<ul style="list-style-type: none"> <li>• Knowledge of terminologies</li> <li>• Knowledge of specific details &amp; elements</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of classifications and categories</li> <li>• Knowledge of principles &amp; generalizations</li> <li>• Knowledge of theories, models &amp; structures</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of subject specific skills and algorithms</li> <li>• Knowledge of subject specific techniques and methods</li> <li>• Knowledge of criteria for determining when to use appropriate procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic Knowledge</li> <li>• Knowledge about cognitive task, including appropriate contextual and conditional Knowledge</li> <li>• Self- Knowledge</li> </ul>

## 9. CO-PO Mapping Guidelines

All the courses in the curriculum must cover all the POs (and PSOs). For a course, we map the COs to POs through the CO-PO matrix and to PSOs through the CO-PSO matrix in Course Information sheet (CIS).

### PROCESS INVOLVED IN CO-PO MAPPING

The role of CO-PO mapping will be assigned to the Course instructor (faculty) involved in the teaching-learning process of that particular course. After the course (subject) allotment by the department, the Module co-ordinator of the course has to write appropriate COs for their corresponding course discussing with course handling faculty members. It should be narrower and measurable statements. By using the action verbs of learning levels (Bloom's Taxonomy), CO's will be designed and written. CO statements should describe what the students are expected to know and able to do at the end of each course, which are related to the skills, knowledge and behavior that students will acquire through the course.

After writing the CO statements, CO will be mapped with PO of the department. The Course Outcome attainment coordinator has to consolidate the CO's of the respective year and maintain the documentation of the CO attainment level of the respective year courses as well as documentation of the individual students extra-curricular and co-curricular activities for PO attainment evaluation.

1. **Map COs to POs:** Each CO is mapped to relevant POs (direct or indirect contribution).
2. **Use a Correlation Level Scale:**

Level	Meaning
1	Low correlation
2	Medium correlation
3	High correlation
-	No correlation

### Rubrics for CO-PO Correlation Level

- A CO shouldn't map to all POs. Typically, 50% and above POs to be mapped per CO.
- **Provide evidence:** Each mapped PO should be supported by specific assessments.
- Use **Level 3** if the CO directly targets the knowledge or skills mentioned in the PO. CO **strongly contributes** to achieving the PO.

- Use **Level 2** if the CO supports or enhances the PO indirectly or partially. (CO **moderately contributes** to the PO).
- Use **Level 1** if the CO marginally targets to knowledge or skills in the PO. CO has and **minimal contribution** to the PO.
- Use **0** or leave blank if there's no alignment between the CO and the PO.

Correlation Level	Score	Description
<b>High</b>	3	CO <b>strongly contributes</b> to achieving the PO. <ul style="list-style-type: none"> <li>• Assessed directly via major assessments (e.g., exam questions, projects).</li> <li>• If the CO directly targets the knowledge or skills mentioned in the PO.</li> </ul>
<b>Moderate</b>	2	CO <b>moderately contributes</b> to the PO. <ul style="list-style-type: none"> <li>• Assessed through some activities or assignments.</li> <li>• If the CO supports or enhances the PO indirectly or partially.</li> </ul>
<b>Low</b>	1	CO has a <b>minimal contribution</b> to the PO. <ul style="list-style-type: none"> <li>• Evidence is weak or partial.</li> <li>• If the CO contributes marginally.</li> </ul>
<b>No Correlation</b>	-	CO <b>does not contribute</b> to the PO. No direct or indirect relationship.

**Example (CO-PO Justification Based on Rubric):**

CO Statement	Mapped PO	Correlation	Justification
Apply Newton's laws to solve engineering problems	PO1 (Engineering Knowledge)	3	Strong conceptual application tested via problem-solving in tests
Prepare lab reports and communicate results	PO10 (Communication)	2	Report writing and presentations partially assessed
Use Excel for basic data analysis	PO5 (Modern Tool Usage)	1	Limited use in one assignment only

## CO Target Setting Process:

The target (or set) attainment level should be fixed by the Course coordinator based on the previous year results and quality of current batch of students. Target setting is used to define a measurable benchmark for student achievement of each CO.

### Steps to Set CO Targets:

#### 1. Define Assessment Tools:

- Internal exams (IA-1, IA-2, etc.)
- Assignments, labs, projects
- End Semester Exam (SEE)

#### 2. Weightage for CIE and SEE

- CIE=60% SEE=30% CES =10%

#### 3. Threshold for CIE and SEE:

- Threshold for CIE  $\geq 70\% = L3$  ,  $\geq 60\% = L2$   $\geq 40\% = L1$
- Threshold for SEE  $\geq 60\% = L3$  ,  $\geq 50\% = L2$   $\geq 35\% = L1$

#### 4. Select target Marks and Target attainment on:

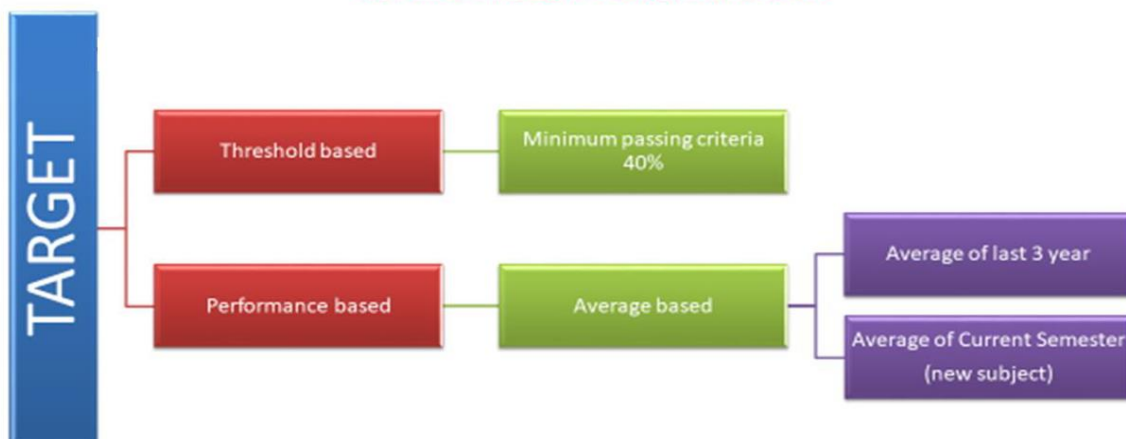
- Past Student performance
- Course Difficulty level
- Bloom's Taxonomy level of the CO

### Rubric for setting target marks and target attainment for CIE:

Target scores are set for each CO as per the following procedure:

- a. If the average CO attainment over the past three years, ie,  $((CAYm1+CAYm2+CAYm3)/3) \geq 1.8$ , the target marks shall be increased by 5% (ie., 65% if the already set value is 60%) otherwise keep the target marks same as that in the previous year. Once the target marks is increased by 5%, that value is maintained for 2 academic years.
- b. If any of the CO fails to attain the required level ( $\geq 1.8$ ), the target marks is sustained and this procedure is repeated in the subsequent year.
- c. For practical courses set the minimum target marks as 70% and an increment of "5%" (ie., 75% if the already set value is 70%), can be given if the required target level is met (If avg. CO attainment  $\geq 2.1$ ).

## SETTING TARGETS FOR ATTAINMENT



Level is the set percentage of students scoring the set target score in percentage.  
3 levels of attainment are defined as 1-Low; 2-medium; 3- High

Example: If the set target marks is 60%

- Level 3 indicates 70% of students score  $\geq 60\%$  of marks of the particular CO.
- Level 2 indicates 60% of students score  $\geq 60\%$  of marks of the particular CO.
- Level 1 indicates 40% of students scoring  $\geq 60\%$  of mark of the particular CO.

Target Attainment	Target marks	CO Target Description	Typical Criteria
$\geq 70\%$	$\geq 60\%$	70% of students attain $\geq 60\%$ marks	<ul style="list-style-type: none"> <li>• Used for foundational or well-supported topics with high student engagement.</li> <li>• CO with L1 and L2 RBTL</li> </ul>
$\geq 60\%$	$\geq 60\%$	60% of students attain $\geq 60\%$ marks	<ul style="list-style-type: none"> <li>• Used for moderately challenging topics.</li> <li>• CO with L3 RBTL</li> </ul>
$\geq 40\%$	$\geq 60\%$	40% of students attain $\geq 60\%$ marks	<ul style="list-style-type: none"> <li>• Used for complex or abstract topics, or newly introduced concepts.</li> <li>• CO with L4 and above RBTL</li> </ul>

### • Rubric for Attainment in SEE

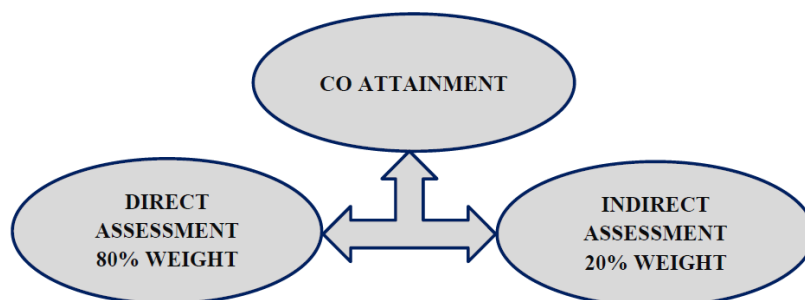
Target Attainment	Target marks	CO Target Description	Typical Criteria
$\geq 50\%$	$\geq 50\%$	$\geq 50\%$ of students attain $\geq 50\%$ marks	<ul style="list-style-type: none"> <li>• Common for all COs i.e Equal Weightage to all COs</li> </ul>

## 10. CO ATTAINMENT ASSESSMENT

AIT has its own well defined course outcomes based on the syllabus of each course provided by the University. Both direct and indirect method of assessment is followed for Course Outcome (CO) attainment assessment. The weightage for direct attainment is 80% while that for indirect attainment is 20%. The various assessment tools for direct attainment assessments are Internal Tests, Mid -Semester and End Semester Examination and Assignments. The indirect tool used is Course End Survey. A standard excel template has been implemented in the institute to assess periodically the attainment of course outcomes and also program outcomes by the courses.

The standardised template has the following information.

- The course outcome statements have defined for each course by the team comprising of DAC members, domain experts and faculty members through meetings.
- The threshold values and target percentage for Continuous Internal Evaluation (CIE) and for Semester End Examination (SEE) were set through the department academic committee and course coordinators based on the previous university results of students.
- The weight percentages are defined for components like CIE, SEE and CES which contributes to final attainment of the course outcomes.
- All course outcomes are mapped to PO's and PSO's in the scale of 1 to 3 by the help of DAC members, domain experts and faculty members.
- The final course outcomes, program outcomes and program specific outcomes attainments are computed by using standardised excel template considering the weight percentages accounting CIE, SEE and CES.



## **Attainment of COs**

- Attainment of COs can be measured directly and indirectly.
- Direct attainment of COs can be determined from the performances of students in all the relevant assessment instruments.
- Indirect attainment of COs can be determined from the course end survey.
- The course end survey form should permit receiving feedback from students on all the COs.

### **Direct CO attainment**

- Direct attainment of COs is determined from the performances of students in Continuous Internal Evaluation (CIE) and Semester End Examination (SEE).
- The proportional weightages of CIE: SEE: CES will be as per the academic regulations in force. Proportions of 60:30:10 are all possible!
- Direct attainment of a specific COs is determined from the performances of students to all the assessment items related to that particular CO.
- Hence, every assessment item needs to be tagged with the relevant CO.

### **Direct CO attainment from CIE**

- Continuous Internal Evaluation (CIE) is conducted and evaluated by the Department itself. Thus, institutions have access to question-wise marks in all assessment instruments in CIE.
- When questions are tagged with relevant COs, the department has access to performances of students with respect to each CO.
- Hence, computing the direct attainment of COs from CIE is straight forward for Tier 2 institutes.

### **Direct CO attainment from SEE**

- However, Semester End Examination (SEE) is conducted and evaluated by the University (VTU) in Tier 2 institutes. Thus the departments get only total marks scored in SEE and not question-wise marks!
- The average marks in SEE taken as the common attainment of all COs (Equal Weightage to all COs).

## CO-PO attainment Computation Procedure:

**STEP-1:** For every subject 5-7 course outcomes (CO) are defined and mapped to Program outcomes (PO) on a scale of 1 to 3. Highest correlation is 3. For example as shown in fig. 1 and fig. 2

Number of Course Outcomes for the course - C311		5	Set Target(%)	
CO No	Statements of Course Outcomes	MARKS	ATN	BL
C311.1	Apply finite element methods to solve engineering problems, formulate boundary conditions, and select appropriate elements.	70	60	3
C311.2	Use finite element methods to analyze 1D bars, trusses, and 2D elements, using higher-order interpolation and numerical integration	70	60	3
C311.3	Evaluate displacement, stress, and torsion in beams and shafts using finite element analysis and appropriate boundary conditions.	70	60	3
C311.4	Implement finite element methods to analyze heat transfer and fluid flow, emphasizing conduction, convection, and radiation.	70	60	3
C311.5	Solve axisymmetric and dynamic problems using finite element methods for mass, stiffness, and eigenvalue analysis.	70	60	3

**Fig 1. Course Outcome's ID, Description, Target marks in percentage and Blooms Level**

11	CO-PO Mapping Table (In the scale of 3)												CO-PSO Mapping Table					
	CO/PO	1	2	3	4	5	6	7	8	9	10	11	12	CO/PO	1	2	3	4
12	C311.1	2	3	1	2	1	2		1	1	1		2	C311.1		1		
13	C311.2	2	3	1	1		2		1				1	C311.2		1		
14	C311.3	2	3	1	1		2		1				1	C311.3		1		
15	C311.4	2	3	2	2		2		1				1	C311.4		2		
16	C311.5	2	3	2	1		2		1				1	C311.5		2		
17																		
18																		
19																		
20																		
21																		
22																		
23	<b>Total</b>	10	15	7	7	1	10		5	1	1		6	<b>Total</b>		7		

**Fig 2. Mapping of Course Outcomes to the Program Outcomes (POs) and Program Specific Outcomes (PSOs)**

**STEP 2:** Maximum marks allotted to each question, mapped to a cognitive level and the corresponding CO. Record the percentage of students achieving a set percentage of max marks allotted to an individual CO in a given IAT. For example as shown in fig.3 ,


	A	B	C	D	E	F	G	H	I	J	K	L	
1		<b>AIT/NBA/ CIE-MARKS/ 2023-24</b>	 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Mechanical Engineering										
2													
3		<b>Course Title:</b>	FINITE ELEMENT METHODS										
4		<b>Course Code:</b>	18ME61	<b>Semester &amp; Section</b>				6 - A	<b>No.Students</b>	10			
5		<b>Course Instructor Name:</b>	Dr. MANJUNATHA B					<b>Course ID:</b>	C311				
6			Test No:1										
7		<b>Ref-Question Number:</b>	1	2	3	4	5	6	7	8	9	10	
8			CIE Marks Entry Format For the Academic Year - 2022-23										
9		<b>Questions</b>	1,2	3,4	5,6	7,8		cra1	cra2	asg1	asg2		
10		<b>Main Question No.</b>	1	2	3	4		1	2	1	2		
11		<b>Mapped CO-No.</b>	1	1	2	3		2	4	5	5		
12		<b>Sl.</b>	<b>USN/Q-Marks</b>		10	10	15	15		10	10	10	10
13	1	1AY20ME400	10	8	13	14		9	4	10	9		
14	2	1AY20ME401	10	8	12	15		8	9	6	10		
15	3	1AY20ME402		8	10	14		6	8	5	5		
16	4	1AY20ME403	2	8	15	15		7	4	9	5		
17	5	1AY20ME404	4	10	4	14		10	10	10	6		
18	6	1AY20ME405	8	6	10	12		8	9	7	5		
19	7	1AY20ME406	10	8	10	14		5	5	9	8		
20	8	1AY20ME407	5	8	15	15		5	8	5	9		
21	9	1AY20ME408	10	8	6	8		10	4	9	10		
22	10	1AY20ME409	5	9	5	15		5	9	4	3		

Fig 3. CIE Marks Entries against each CO and Student wise

Below table summarizes the CO attainment calculation and interpretation of Excel Template values

Sl.	USN	Max Marks -20 & Sum of Scored marks against CO-1 only	CO attainment Calculation For CO-1 Refer Qn No. 1 & 2	Attainment of CO
1	1AY20ME400	18	$(18/20)*100 = 90\% \Rightarrow 70\%$	CO Attained
2	1AY20ME401	18	$(18/20)*100 = 90\% \Rightarrow 70\%$	CO Attained
3	1AY20ME402	8	$(8/10)*100 = 80\% \Rightarrow 70\%$	CO Attained
4	1AY20ME403	10	$(10/20)*100 = 50\% \leq 70\%$	<b>CO Not Attained</b>
5	1AY20ME404	14	$(19/20)*100 = 95\% \Rightarrow 70\%$	CO Attained
6	1AY20ME405	14	$(14/20)*100 = 70\% \Rightarrow 70\%$	CO Attained
7	1AY20ME406	18	$(18/20)*100 = 90\% \Rightarrow 70\%$	CO Attained
8	1AY20ME407	13	$(13/20)*100 = 65\% \leq 70\%$	<b>CO Not Attained</b>
9	1AY20ME408	18	$(18/20)*100 = 90\% \Rightarrow 70\%$	CO Attained
10	1AY20ME409	14	$(14/20)*100 = 70\% \Rightarrow 70\%$	CO Attained

Refer to the Excel template.

By executing the attainment command, you will get either 1 or blank (empty). 1 means attained Blank (empty) means not attained.

This indicates that the scored marks percentage is less than or greater than the threshold percentage

Sl.	USN	Course Outcome Number	CO1	CO2	CO3	CO4	CO5						
		Total Maximum Marks	20	25	15	10	20						
1	1AY20ME400	ABHILASH	1	1	1		1						
2	1AY20ME401	ABHISHEK H	1	1	1	1	1						
3	1AY20ME402	AKASH R N	1		1	1							
4	1AY20ME403	AKRAMKHAN H		1	1		1						
5	1AY20ME404	AKSHAY L	1		1	1	1						
6	1AY20ME405	ANIKETH S	1	1	1	1							
7	1AY20ME406	BADRI TELU	1		1		1						
8	1AY20ME407	BORAPPANAYAKA		1	1	1	1						
9	1AY20ME408	CHAITRANJALI	1				1						
10	1AY20ME409	CHANDAN C	1		1	1							
p. Students Attained			8	5	9	6	7						
Total Students			10	10	10	10	10						
% Attainment			80	50	90	60	70						
Attainment Level			3	1	3	2	3						

Fig 4. Number of students attained, Total students, Percentage of attainment and Attainment Level

**STEP 3:** Performances of a student from CIE (Two/three IA and Assignments) are used for calculating attainment levels for CO1. The process is described below.

**Condition IF S3 % of students score  $\geq$  M3% of Max marks allotted to CO - Attainment Level 3**

**ELSE IF S2% of students score  $\geq$  M2% of Max marks allotted to CO - Attainment Level 2**

**ELSE IF S1% of students score  $\geq$  M1% of Max marks allotted to CO - Attainment Level 1**

In our Institute we have set % of student S3, S2, S1 as 70%,60%,40% and % marks M3,M2,M1 as 60%

CIE, SEE, CES - Threshold Values for Attainment Levels							Set Target Percentage			
Attainment level	3	%	2	%	1	%	Marks	Attainment		
Internal Assessment, IA	$\geq$	70	$\geq$	60	$\geq$	40	SEE, %	50	SEE, %	60
SE Examination, SEE	$\geq$	60	$\geq$	50	$\geq$	40	Set Target Level & Percentage			
Course End Survey, CES	$\geq$	70	$\geq$	60	$\geq$	40	CES, L	3	CES, %	60

Fig 5. Different Attainment Levels and Threshold Values for Different Components of TLP

**STEP 4:** Repeat the above condition to evaluate all COs

**STEP 5:** Calculate the CO attainment of the course based on CIE and VTU University Examinations using the below formula.

Attainment Level =  $\left(\frac{\text{Number of Students Attained}}{\text{Total Students}}\right) \times 100$

Example: Attainment level 3 =  $\left(\frac{8}{10}\right) \times 100 = 80\%$

Refer the Threshold Table for deciding Attainment level

The Calculated **80%** is more than **70%**, therefore CO-1 Attainment Level is **3**

**Note: Same Procedure shall be followed for calculating other CO attainment Levels**

<b>For Internal Exam</b>
Level 3 is 70% of students scoring $\geq 60\%$ of marks allocated to CO.
Level 2 is 60% of students scoring $\geq 60\%$ of marks allocated to CO.
Level 1 is 40% of students scoring $\geq 60\%$ of marks allocated to CO.

**CO Attainment Calculation Procedure for the SEE (External Examinations)**

If the student scores more than or equal to 50% marks. Such student attained in the COs. Refer the threshold table for deciding the Level of attainment. From the table,  
 Level of attainment is 3 if number of students attained are  $\geq 60\%$   
 Level of attainment is 2 if number of students attained are  $\geq 60\%$   
 Level of attainment is 1 if number of students attained are  $\geq 60\%$

49	Format for Entry of Semester End Examination Marks								50	50	100
50	Sl.	USN	NAME	CIE	SEE	TOT	Result	Class	ATNT	Grade	Rank
51	1	1AY20ME400	ABHILASH	34	47	81	PASS	FCD	1	9	1
52	2	1AY20ME401	ABHISHEK H	34	22	56	PASS	SC		6	4
53	3	1AY20ME402	AKASH R N	27	49	76	PASS	FCD	1	8	2
54	4	1AY20ME403	AKRAMKHAN H	24	32	56	PASS	SC	1	6	4
55	5	1AY20ME404	AKSHAY L	25	10	35	FAIL			0	8
56	6	1AY20ME405	ANIKETH S	27	42	69	PASS	FC	1	7	3
57	7	1AY20ME406	BADRI TELU	25	24	49	PASS	SC		4	7
58	8	1AY20ME407	BORAPPANAYAKA	33	22	55	PASS	SC		6	5
59	9	1AY20ME408	CHAITRANJALI	28	21	49	PASS	SC		4	7
60	10	1AY20ME409	CHANDAN C	27	25	52	PASS	SC	1	5	6

**Fig 6. Attainment of CO from the SEE**

The Level of attainment from the SEE is 2 as 50% students attained, i.e., the number of students obtained 50% and more are more than or equal to 50% but less than 60%. The total COs attainment from CIE and SEE is computed as described below


24	Weight %, for Final CO attainment (CIE+SEE+CES)					Weight %, CO Attainment				
25	CIE	60	SEE	40	CES	0	Direct	100	Indirect	0
26										

Fig 7. Weight Percentage allocated for CIE and SEE

Let us consider CO attainment from SEE is 3. Then the overall CO attainment is calculated as follows:

**Total CO1 attainment** = CO1 attainment from CIE x wt% + CO1 attainment from SEE x wt%

**Total CO1 attainment** = 3 x 0.6 + 2 x 0.4 = 2.6

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	AIT/NBA/ CO-PO-PSO REPT/ 2023-24		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Mechanical Engineering												
2															
3	<b>Course Title</b>		FINITE ELEMENT METHODS								<b>Course Code</b>		C311		
4	<b>Subject Code</b>		18ME61		<b>Semester</b>		6		<b>Section</b>		A		<b>Emp.ID</b>		AI00024
5	<b>Faculty Name</b>		Dr. MANJUNATHA B								<b>No.students</b>		10		
6															
7	<b>Summary of CO attainments of Sub: 18ME61 in the Academic Year:2023-24</b>														
8			CIE			SEE			CES			TOT_Attainment			
9	<b>CO</b>	<b>CID_CO</b>	<b>S_AT</b>	<b>T_ST</b>	<b>ATN</b>	<b>S_AT</b>	<b>T_ST</b>	<b>ATN</b>	<b>S_AT</b>	<b>T_ST</b>	<b>ATN</b>	<b>ATN</b>	<b>%</b>	<b>Status</b>	
10	CO1	C311.1	8	10	3	5	10	2				2.6	87	YES	
11	CO2	C311.2	5	10	1	5	10	2				1.4	47	NO	
12	CO3	C311.3	9	10	3	5	10	2				2.6	87	YES	
13	CO4	C311.4	6	10	2	5	10	2				2	67	YES	
14	CO5	C311.5	7	10	3	5	10	2				2.6	87	YES	
15															

**STEP 7 Program outcomes attained through the attainment of COs.** For a given course, all COs are mapped to certain POs, as shown in STEP 1. The overall CO attainment value as computed in STEP 7 and the CO-PO mapping values given in the STEP 1 used to compute the attainment of POs.

**Course wise PO attainment can be computed for a course using the below formula.**

$$\text{Attainment of PO1} = \frac{(\text{Mapped Value of CO} - 1 \text{ to PO 1}) / \text{Sum of Mapped Values for PO1} + (\text{Mapped Value of CO} - 2 \text{ to PO 1}) / \text{Sum of Mapped Values for PO1}, + \dots}{\text{Sum of Mapped Values for PO1}, + \dots}$$

Note: Consider the COs which are mapped to PO-1 only, Refer the Table shown in Figure 2

PO attainment is calculated as follows (Note: Total of CO as follows

CO1 = 2.6, CO2 = 1.4, CO3 = 2.6 (Calculations are described above, but for CO4 = 2.0 and CO5 = 1.8 are considered for the reference and understanding purpose only)

**PO-1 attainment** = (2/11) x CO-1 attainment + (2/11) x CO-2 attainment+ (2/11) x CO-3 attainment+ (2/11) x CO-4 attainment+ (2/11) x CO-5 attainment

$$\text{PO-1 attainment} = (2/7) \times 2.6 + (1/7) \times 1.4 + (2/7) \times 2.6 + (1/7) \times 2.0 + (1/7) \times 2.6 = 2.2$$

Summary of PO attainments of Sub: 18ME61 in the Academic Year:2023-24												
PO Number	1	2	3	4	5	6	7	8	9	10	11	12
Direct ATNT(D)	2.2	2.2	2.3	2.3	2.6	2.2		2.2	2.6	2.6		2.3
Indirect ATNT(ID)	0	0	0	0	0	0		0	0	0		0
Total-ATNT	2.2	2.2	2.3	2.3	2.6	2.2		2.2	2.6	2.6		2.3
Total-ATNT (%)	73	73	77	77	87	73		73	87	87		77

**Fig 8. Table shows PO attainment from direct (CIE+SEE), indirect (CES) and Total attainment (Direct + Indirect)**

**STEP 8** PO attainment can be computed for a batch using the below formula. Indirect attainment is determined from student exit surveys, employer surveys, co-curricular activities, extracurricular activities and mapped to POs. A questionnaire was designed for this purpose and the average response of the outgoing students for each PO is computed.

**Batch PO attainment can be computed for a batch using the below formula.**

**PO/PSO attainment = (CO attainment \* CO-PO Mapping)/Max correlation strength**

**Final PO attainment for a particular batch = 0.8 \* Direct Attainment + 0.2 \* Indirect attainment**

### **CO Assessment Process for Various Courses in The Curriculum**

Course outcomes of all courses are assessed with the help of below-mentioned assessment tools and attainment level is evaluated based on set attainment rubrics. The curriculum is a bundle of various components like Theory courses, Theory with Lab components, Laboratory courses, Mini-Projects, Projects and Internships /Implant training / Technical seminar.

Theory Courses				
Method	Assessment Tools	Marks	weightage	Regulation
Direct Assessment	Continuous Internal Evaluation	40		2018
	Semester End Examination	60		
Indirect assessment	Course End survey			
Direct Assessment	Continuous Internal Evaluation	50		2021 & 2022
	Semester End Examination	50		

Indirect assessment	Course survey	End			
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Mini/Main Projects					
Method	Assessment Tools	Marks	weightage	Regulation	
Direct Assessment	Continuous Internal Evaluation	40			
	Semester End Examination	60			
Indirect assessment	Course survey	End			

Internships/Technical Seminar					
Method	Assessment Tools	Marks	weightage	Regulation	
Direct Assessment	Continuous Internal Evaluation	40			
	Semester End Examination	60			
Indirect assessment	Course survey	End			

## Sample CO Attainment Calculations

### CO attainment from the Marks

Threshold Values for Attainment Calculation						
Attainment level	3	%	2	%	1	%
Internal Assessment	>=	70	>=	60	>=	40
SE Examination	>=	60	>=	50	>=	35

Questions	1,2	3,4	
Main Question No.	1	2	
Mapped CO-No.	1	2	
Sl.	USN/Q-Marks	10	10
1	BT001	9	10
2	BT002	6	4
3	BT003	5	8
4	BT004	10	8
5	BT005	9	7
6	BT006	5	7
7	BT007	4	8
8	BT008	3	9
9	BT009	10	10
10	BT010	8	9

Questions	1,2	3,4		
Main Question No.	1	2		
Mapped CO-No.	1	2		
Sl.	USN/Q-(%)	100	100	
1	BT001	90	100	
2	BT002	60	40	
3	BT003	50	80	
4	BT004	100	80	
5	BT005	90	70	
6	BT006	50	70	
7	BT007	40	80	
8	BT008	30	90	
9	BT009	100	100	
10	BT010	80	90	
Number of Students having		70% and above	5	9

### CO-1 Attainment Calculation

$$= \frac{5}{10} \times 3 = 1.5 \quad \text{1.5 means 50 \% students have } \geq 70 \% \text{ Marks}$$

### CO-2 Attainment Calculation

$$= \frac{9}{10} \times 3 = 2.7 \quad \text{2.7 means 90 \% students have } \geq 70 \% \text{ Marks}$$

Attainment Level						
Level	3	%	2	%	1	%
%	>=	70	>=	60	>=	40
Range	>=	2.1	>=	1.8	>=	1.2

### CO-1 Attainment Level

Attainment value = 1.5

Attainment level = 1

### CO-2 Attainment Level

Attainment value = 2.7

Attainment level = 3

### PO attainment from the Matrix of CO-PO mapping

CO-PO Mapping Table												
PO	1	2	3	4	5	6	7	8	9	10	11	12
CO1	2											
CO2	1	2										
CO3	2	2	1									1
CO4	1	2	1									1

(Reference values only)

Total		
CIE-60	SEE-30	CES-10
1.2		
2.0		
0.2		
2.0		

PO - Weight and Attainment												
Total	6	6	2									2
Attainment	1.1	1.4	1.1									1.1

$$\text{PO-1 attainment} = (2/6) \times \text{CO-1} + (1/6) \times \text{CO-2} + (2/6) \times \text{CO-3} + (1/6) \times \text{CO-4}$$

$$= (2/6) \times 1.2 + (1/6) \times 2.0 + (2/6) \times 0.2 + (1/6) \times 2.0$$

$$= 1.13 \quad (\text{It means } 1.13/3 = 37.7 \% \text{ PO-1 attained, or } 2.26 \text{ out of } 6 \text{ PO-1 attained})$$

## 11. PROGRAM OUTCOME (PO)/PROGRAM SPECIFIC OUTCOME (PSO) Assessment

At the end of the each program, the PO/PSO assessment is done from the CO attainment of all curriculum components. As per NBA guidelines, program can appropriately define the attainment level. For the evaluation and assessment of PO's and PSO's, assessment tools are used.

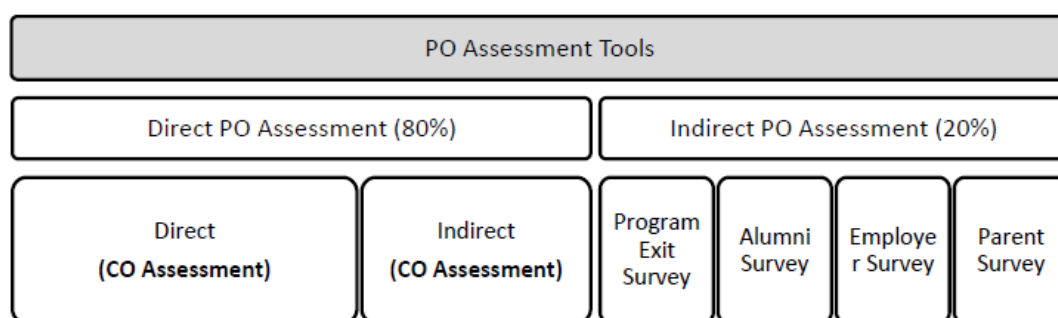
## All (Direct + Indirect) CO assessment tools = PO Direct assessment tools

### Sample CO assessment Tools

- CIE
- SEE
- Quiz
- Assignment
- Practical/ Lab work
- Industrial Visit, Workshop
- Other Task/Activity
- Course End Survey

**Direct Tools:** (Measurable in terms of marks and w.r.t. CO) Assessment done by faculty at Department level

**Indirect Tools:** (Non measurable in terms of marks and w.r.t. CO) Assessment done at Department Level



The Program Outcome (PO) attainment and Program Specific Outcome (PSO) attainments are evaluated by direct method with 80% weightage and indirect method with 20% weightage. The Direct attainment level of Particular PO /PSO is determined by taking average of all course outcomes mapping that program Outcome.

Indirect attainment level of PO/PSO is determined based on Surveys and Co-curricular activities. Out of 100%, 30% weightage is given to co-curricular activities and 70% weightage to Surveys. This 100% weightage is converted to 20 % scale for PO attainment calculation.

The various Surveys taken are Student exit survey, Employer survey, Alumni survey and Parents feedback. The co-curricular activities are Value added Courses, Workshops etc related to the unattained POs(less mapped POs in CO-PO matrix). The PO/PSO Attainment Level is fixed as Maximum level of 3 & Minimum level of 1.

**Course End Survey:** The course end survey is based on the feedback taken from the students after studying each course.

**Graduate Exit survey:** The graduate exit survey is based on the feedback collected from graduates at the end of the program.

**Alumni Feedback:** This feedback is about how effectively they can able to implement their knowledge acquired through BE- Programme in their workplace.

**Employer Feedback:** This feedback is about how alumni of department can able to implement their knowledge in the company.

**Parent’s Feedback:** This feedback is collected from the parents about their satisfaction in the knowledge, skill and employment level of their wards.

Co-curricular activities:

- Workshops
- Placement training programs
- Value added courses in Modern trends

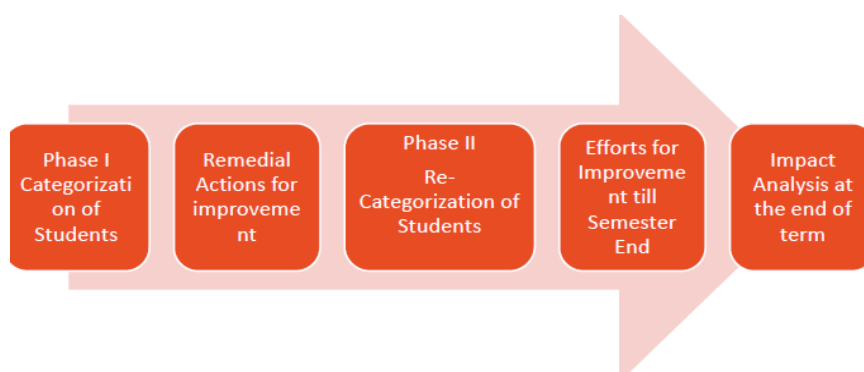
**Batch PO attainment can be computed for a batch using the below formula.**

**PO/PSO attainment = (CO attainment \* CO-PO Mapping)/Max correlation strength**

**Final PO attainment for a particular batch = 0.8 \* Direct Attainment + 0.2 \* Indirect attainment**

## 12. STUDENT COMPETENCY

Chart of action plan for categorization of students as slow learners, average learners and advanced learners.



### Guidelines for First Year

Phase I- Categorization (After 15 Days of start of semester)	Phase II- Re-categorization (After CIE Result)
12th Marks	CIE Result
Prerequisite Test	Timely Completion of work
Surprise Test after 15 days	Lab Performance
Attendance & Behaviour	Attendance & Behaviour
Previous Semester University Result (Applicable for Sem-II)	

### Guidelines for Higher Classes

Phase I- Categorization (After 15 Days of start of semester)	Phase II- Re-categorization (After CIE Result)
Previous semester University Result whichever is available	CIE Result
Prerequisite Test	Timely Completion of work
Surprise Test after 15 days	Lab Performance
Attendance & Behaviour	Attendance & Behaviour
Previous semester University Result	

### **Base Score for student category**

<40% - Slow Learner

40% to 65% - Average Learner

>65% - Advanced Learner

### **Strategies for Slow, Average and Advanced Learners**

#### ***For Slow learners***

- Document/record of remedial classes with timetable & attendance
- Specially designed assignment/ task
- Student study group for peer-to-peer learning
- Individual Counselling

**Note: Remedial sessions should be conducted once every week**

#### ***For Average Learners***

- Additional assignment/ task
- Encouraging for timely and effective completion of work
- Conduction of quiz, orals etc.
- Solving previous year University question papers and test papers
- Presentation on technical topics/ case studies/mini projects

**Note: Activities should be on continuous basis**

#### ***For Advanced Learners***

- Encouraging to present & publish papers in journals/conferences/competitions
- Guidance for GATE/ competitive Examination
- Encouraging to participate in professional activities.
- Special guidance for career building

**Note: Activities should be on continuous basis**

### 13. CONTINUOUS IMPROVEMENT

#### A) Contribution of CO in PO attainment and Continuous Improvement (Faculty Level)

Outcome	Action to be taken by faculty
All CO-PO attained highly (>2.5 out of 3)	Set new higher targets or attainment levels for next Academic Year (A.Y.).
All CO-PO attained moderately (1.8 to 2.49 out of 3)	Record observations, Continue action plan of last A.Y. with plan for improvements.
All CO-PO attained lowly (0.9 to 1.79 out of 3)	Record observations, assess the target set, revise/improve action plan of last A.Y. to achieve the attainment with plan for improvements.
CO-PO not attained, poor performance (<0.9 out of 3)	Record observations, Critical assessment of target with Program Assessment Committee (PAC), Revise action plan of last A.Y. at faculty/department level.

#### B) PO attainment and Continuous Improvement (PC and HoD Level)

Category	Outcome	Action by PC and HoD
Course related	PO attained highly	Include activities with HOD.
	PO not attained highly	Identify concerned courses, plan for immediate improvements, guide, support and monitor its execution.
Activity related	Activities Conducted	Critical assessment, impact analysis to be done and revise as per the need for improvements

**Document Prepared by:**

Internal Quality Assurance Cell(IQAC)  
Acharya Institute of Technology

Date: April 2025

**Verified and Entrusted by:**

Coordinator  
Internal Quality Assurance Cell (IQAC)

Principal  
Acharya Institute of Technology





# ACHARYA INSTITUTE OF TECHNOLOGY

Affiliated to Visvesvaraya Technological University, Belagavi  
Approved by AICTE, New Delhi, Recognized by Govt. of Karnataka  
and Accredited by NBA (AE, BT, CSE, ECE, ME, MT)

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## CO-PO-ATTAINMENT OF THE COURSE (SAMPLE)





**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Aeronautical Engineering

AIT-2022-V1.0

<b>Programme Name</b>	<b>Aeronautical Engineering</b>					<b>AE</b>
<b>Course Title:</b>	<b>AIRCRAFT STABILITY AND CONTROL</b>					
<b>Subject Code</b>	<b>18AE71</b>	<b>Subject No.</b>	<b>1</b>	<b>Course-ID</b>	<b>C401</b>	
<b>Course Coordinator Name:</b>	<b>MR.AKASH S</b>			<b>Emp. ID</b>	<b>AI002075</b>	
<b>Semester:</b>	<b>7</b>	<b>Section</b>	<b>A</b>	<b>No. of Students Enrolled</b>		<b>56</b>
<b>Year:</b>	<b>4</b>	<b>Academic Year</b>		<b>2022-23</b>	<b>Programme</b>	<b>UG</b>
<b>Course Type:</b>	<b>Theory</b>	<b>Maximum CIE</b>	<b>40</b>	<b>Maximum SEE</b>		<b>60</b>
<b>Course Details</b>						
<b>List of POs</b>	<b>pdf</b>	<b>Course-Format Create</b>	<b>pdf</b>	<b>Lab -Index</b>	<b>pdf</b>	
<b>Student List</b>						
<b>Create - Format</b>		<b>pdf</b>		<b>e-Attnd</b>	<b>pdf</b>	
<b>Format for CIE, Assignment, Quiz, etc Marks Entry</b>				<b>Create - Format</b>	<b>pdf</b>	
<b>Starting Ref. Qn. No.</b>	<b>1</b>	<b>Ending Ref.Qn No.</b>	<b>30</b>	<b>Number of Questions</b>		<b>30</b>
<b>CO attainment Analysis</b>	<b>SUB</b>	<b>1</b>		<b>SUB</b>		<b>TYPE-2</b>
<b>PO attainment Calculation</b>				<b>ACTUAL</b>		
<b>CO Attainment Report</b>		<b>Upto</b>	<b>Analyze-AT</b>	<b>Report- AT</b>	<b>pdf</b>	
<b>Semester End Examination-Results</b>		<b>Create- Format</b>	<b>Analyze-Results</b>	<b>pdf</b>		
<b>Course End Survey</b>		<b>Create-Format</b>	<b>pdf</b>			
<b>Semester End CO-PO-PSO Attainment</b>						
<b>CIE</b>	<b>YES</b>	<b>SEE</b>	<b>YES</b>	<b>CES</b>	<b>YES</b>	<b>Analyze pdf</b>
<b>Consolidated Report - ALL</b>				<b>pdf</b>		
<b>List of Slow and Fast Learners Based on CIE Performance</b>				<b>Analyze</b>	<b>pdf</b>	

Comparison of CO- PO-PSO Attainment	Create -Format	pdf
Course End Report (CER) By Course Instructor	Create-Format	pdf
<b>Continuous Internal Evaluation- Assignments+IA</b>		
Create -Template	IA	3
	Create-QP-Format	pdf
Course Syllabus	No of Modules/Chapters	5
	Create	pdf

  
 Head of the Department  
 Aeronautical Engineering  
 Acharya Institute of Technology  
 Bangalore - 560 107

  
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AIT/NBA/ LIST-POs/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Aeronautical Engineering					
<b>Course Title:</b>		AIRCRAFT STABILITY AND CONTROL				<b>Course Code:</b>	C401
<b>Subject Code:</b>	18AE71	<b>Semester</b>	7	<b>Section</b>	A	<b>Emp.ID.</b>	AI002075
<b>Faculty Name:</b>		MR.AKASH S				<b>No.students</b>	56
<b>LIST OF PROGRAMME OUTCOMES (POs)</b>							
1	<b>Engineering knowledge:</b>	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems					
2	<b>Problem analysis:</b>	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences					
3	<b>Design / development of solutions:</b>	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations					
4	<b>Conduct investigations of complex problems:</b>	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions					
5	<b>Modern tool usage:</b>	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations					
6	<b>The engineer and society:</b>	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.					
7	<b>Environment and sustainability:</b>	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development					
8	<b>Ethics:</b>	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice					
9	<b>Individual and team work:</b>	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings					
10	<b>Communication:</b>	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions					
11	<b>Project management and Finance:</b>	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments					
12	<b>Life-long learning:</b>	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change					

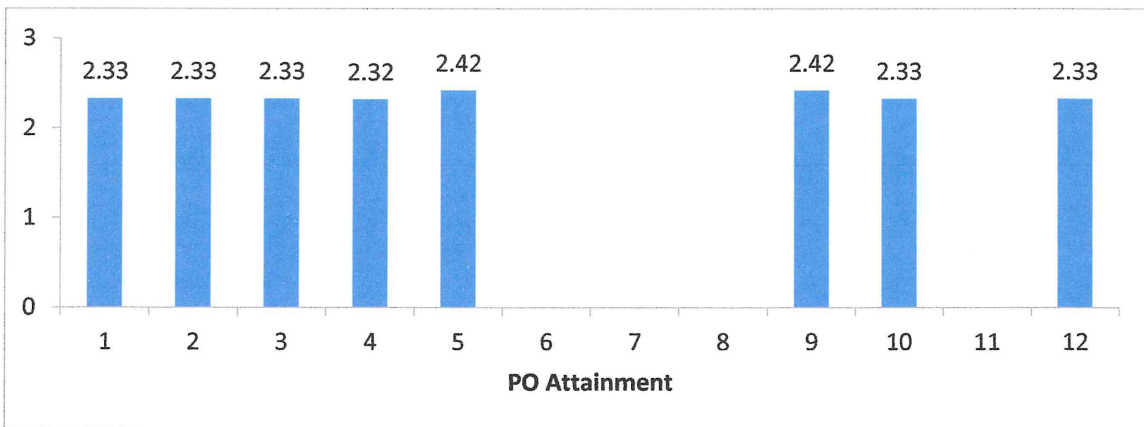
<b>Course Title</b>	AIRCRAFT STABILITY AND CONTROL	<b>Course Code</b>	C401	
<b>Subject Code</b>	18AE71	<b>Semester</b>	7	
	<b>Section</b>	A		
<b>Faculty Name</b>	MR.AKASH S		<b>No.students</b>	56

**Summary of CO attainments of Sub: 18AE71 Based on (ACTUAL-TYPE-2) Academic Year:2022-23**

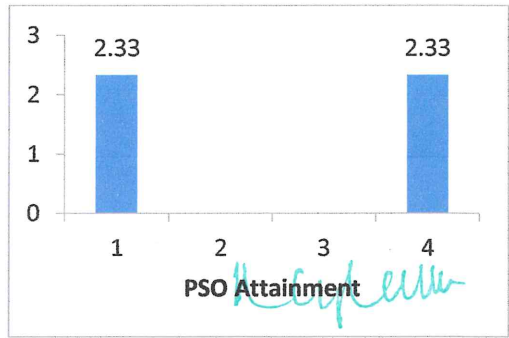
CO	CID_CO	CIE			SEE			CES			TOT_Attainment		
		S_AT	T_ST	ATN	S_AT	T_ST	ATN	S_AT	T_ST	ATN	ATN	%	Status
CO1	C401.1	39	56	2.1	39	56	2.1	21	33	1.9	2.1	70	YES
CO2	C401.2	40	56	2.1	39	56	2.1	15	33	1.4	2	68	YES
CO3	C401.3	56	56	3	39	56	2.1	17	33	1.6	2.6	87	YES
CO4	C401.4	56	56	3	39	56	2.1	16	33	1.5	2.6	86	YES

**Summary of PO attainments of Sub: 18AE71 Based on (ACTUAL-TYPE-2) Academic Year:2022-23**

PO Number	1	2	3	4	5	6	7	8	9	10	11	12
<b>Direct ATNT(D)</b>	2.4	2.4	2.4	2.4	2.5				2.5	2.4		2.4
<b>Indirect ATNT(ID)</b>	1.6	1.6	1.6	1.57	1.58				1.58	1.6		1.6
<b>Total-ATNT</b>	2.33	2.33	2.33	2.32	2.42				2.42	2.33		2.33
<b>Total-ATNT (%)</b>	78	78	78	77	81				81	78		78




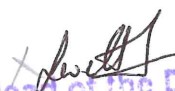
Summary of PSO attainments in Year:2022-23				
PSO Number	1	2	3	4
<b>Direct ATNT(D)</b>	2.4			2.4
<b>Indirect ATNT(ID)</b>	1.6			1.6
<b>Total-ATNT</b>	2.33			2.33
<b>Total-ATNT (%)</b>	78			78





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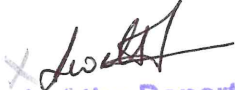
AIT/NBA/ COURSE/ 2022-23				<b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Aeronautical Engineering															
<b>Course Information</b>																			
<b>Programme Name:</b>		Aeronautical Engineering																	
<b>Academic Year:</b>		2022-23		<b>Semester:</b>		7		<b>Section:</b>		A		<b>Subject Type:</b>		Theory					
<b>Course Title:</b>		AIRCRAFT STABILITY AND CONTROL																	
<b>Course Instructor Name:</b>				MR.AKASH S								<b>Class Strength:</b>		56					
<b>Subject Code:</b>		18AE71		<b>Course No:</b>		1		<b>Course ID:</b>		C401				56					
<b>Scheme of Teaching &amp; Marks</b>																			
<b>Contact Hr/Week:</b>		3		<b>Lecture Hours (Hr.):</b>				0				<b>Tutorials (Hr.):</b>		3					
<b>Max.CIE Marks:</b>		40		<b>Max. SEE Marks:</b>				60				<b>Total Max.Marks:</b>		100					
<b>Min.CIE Marks:</b>		19		<b>Min.SEE Marks:</b>				21				<b>Total Min.Marks:</b>		40					
<b>Final CIE (IA) Marks:</b>		40		<b>Assignment Marks:</b>				10				<b>Test Marks:</b>		30					
<b>Threshold Values for Attainment Calculation</b>										<b>Final CO Attainment</b>									
<b>Attainment level</b>		3		%		2		%		1		%		<b>( Percentage Contribution, %)</b>					
<b>Internal Assessment</b>		≥		70		≥		60		≥		40		<b>CIE</b> 60 <b>SEE</b> 30					
<b>SE Examination</b>		≥		60		≥		50		≥		35		<b>CES</b> 10					
<b>Statements of Course Outcomes</b>								<b>No.of CO's</b>		4		<b>Target(%)</b>		<b>BL</b>					
C401.1		Demonstrate the static longitudinal stability and control of aircraft with stick-fixed and stick-free configurations.										65		3					
C401.2		Analyze directional & lateral stability on aircraft, including the effects of various components & adverse weather conditions in design of flight vehicles.										65		4					
C401.3		Estimate the stability parameters of aircrafts with the aid of equations of motion to communicate effectively about complexity involve in design of aircrafts.										65		4					
C401.4		Analyze different modes of motion associated with dynamic stability of an aircraft & function effectively as a team to design a aircraft that recovers from these modes.										65		4					
<b>Semester End Exam. (SEE) Target(%)</b>				65				<b>Course End Survey(CES) Target (%)</b>				65							
<b>CO-PO Mapping Table (In the scale of 3)</b>												<b>CO-PSO Mapping Table</b>							
<b>CO/PO</b>		1	2	3	4	5	6	7	8	9	10	11	12	<b>CO/PSO</b>		1	2	3	4
C401.1		3	3	2	1	1				1	2		2	C401.1		2			3
C401.2		3	3	2	2	1				1	2		2	C401.2		2			3
C401.3		3	3	2	2	2				2	2		2	C401.3		2			3
C401.4		3	3	2	1	2				2	2		2	C401.4		2			3
#REF!														#REF!					
#REF!														#REF!					
<b>Total</b>		12	12	8	6	6				6	8		8	<b>Total</b>		8			12


  
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AIT/NBA/ STD-LIST/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Aeronautical Engineering					
<b>Course Title:</b>		AIRCRAFT STABILITY AND CONTROL				<b>Course Code:</b>	C401
<b>Subject Code:</b>		18AE71	<b>Semester</b>	7	<b>Section</b>	A	<b>Emp.ID.</b> AI002075
<b>Faculty Name:</b>		MR.AKASH S				<b>No.students</b>	56
		<b>Academic Year : 2022-23</b>					
		<b>List of Students enrolled to the Course of Code : 18AE71</b>					
<b>Sl.</b>	<b>USN</b>	<b>Student Name</b>					<b>Contact Number</b>
1	1AY18AE053	SARASA SUMANTH					
2	1AY18AE059	SUPRIYA BABU					
3	1AY19AE001	A S SHASHANK					
4	1AY19AE002	ADITYA SANJAY HALORNEKAR					
5	1AY19AE003	AKRAM BASHA					
6	1AY19AE004	ANCHARA M					
7	1AY19AE005	ANEESH NEHRU					
8	1AY19AE006	ANOOP M S					
9	1AY19AE007	ANUMOL BHARADWAJ K					
10	1AY19AE008	AVANTIKA S GAIKWAD					
11	1AY19AE009	BASAVARAJ T					
12	1AY19AE010	NIRBHAY BHARAT BHOI					
13	1AY19AE012	D RANJITHA					
14	1AY19AE014	DARWIN KANTHARAJ VINCENT					
15	1AY19AE015	DIPAK JAISWAL					
16	1AY19AE016	GAGANDEEP D T					
17	1AY19AE017	H M MIHIR PATEL					
18	1AY19AE018	JOSHI HARSH UDAYKUMAR					
19	1AY19AE019	KAIZAR MERCHANT					
20	1AY19AE020	LEAH GEORGE MANAPURATHU					
21	1AY19AE021	MADHUSHREE N P					
22	1AY19AE022	MANISH PATEL					
23	1AY19AE023	MANJUNATH S MUGADAYYANAMATH					
24	1AY19AE024	MOHAN G M					
25	1AY19AE025	R VAMSI PRASAD MOHITH					
26	1AY19AE026	MUNNA KUMAR YADAV					
27	1AY19AE027	MUZZAMMIL AHMED N					
28	1AY19AE028	NAVEEN B M					
29	1AY19AE029	NEHA SHREE C H					
30	1AY19AE030	PRAJWAL SUARES					
31	1AY19AE031	PRERANA M BHUTE					
32	1AY19AE032	PRINCIA JENIFER LEWIS					
33	1AY19AE033	RADHESHYAM THAKUR					
34	1AY19AE034	RAJUPALEM ARAVIND					
35	1AY19AE035	RAKSHIT M GUDDARADDI					
36	1AY19AE037	SAHAS S					
37	1AY19AE039	SAMYAK KINI B					
38	1AY19AE040	SAYEEMA IFRA					
39	1AY19AE042	SHARATH KUMAR R					

AIT/NBA/ STD-LIST/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> <b>Bengaluru – 560 107</b> <b>Department of Aeronautical Engineering</b>					
<b>Course Title:</b>		AIRCRAFT STABILITY AND CONTROL				<b>Course Code:</b>	C401
<b>Subject Code:</b>	18AE71	<b>Semester</b>	7	<b>Section</b>	A	<b>Emp.ID.</b>	AI002075
<b>Faculty Name:</b>		MR.AKASH S				<b>No.students</b>	56
<b>Academic Year : 2022-23</b>							
<b>List of Students enrolled to the Course of Code : 18AE71</b>							
<b>Sl.</b>	<b>USN</b>	<b>Student Name</b>					<b>Contact Number</b>
40	1AY19AE043	SHASHANK UPPARIGE N R					
41	1AY19AE044	SHEETHAL JAIN Y N					
42	1AY19AE045	SHRUTHI S					
43	1AY19AE046	SIYAS					
44	1AY19AE047	SNIGDHA RAJ					
45	1AY19AE048	SOMU PARAPPA HANGARAGI					
46	1AY19AE049	SOORAJ KRISHNA					
47	1AY19AE050	TAHIR AHMAD					
48	1AY19AE051	THIRUMALEGOWDA M K					
49	1AY19AE052	VISHAL					
50	1AY19AE053	YASHRAJ SURENDRA SANKHALKAR					
51	1AY19AE054	YATIN SINGLA					
52	1AY20AE400	BIPRAJIT DAS					
53	1AY20AE401	LAKSHMISHA T H					
54	1AY20AE402	PRASHANTH R					
55	1AY20AE404	THRISHUL N					
56	1AY20AE405	VISHAL K					


  
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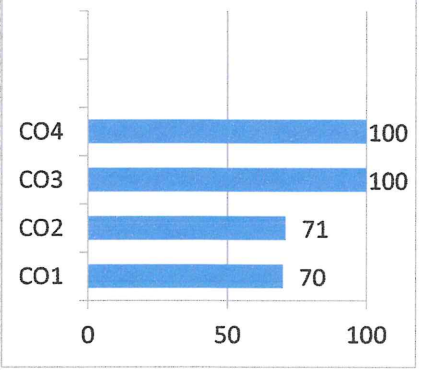
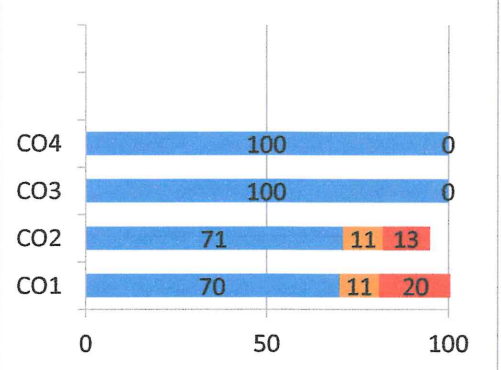


AIT/NBA/ CO-ATNT/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Aeronautical Engineering							
<b>Course Title</b>		AIRCRAFT STABILITY AND CONTROL				<b>Course Code</b>	C401		
<b>Subject Code</b>	18AE71	<b>Semester</b>	7	<b>Section</b>	A	<b>Emp.ID</b>	AI002075		
<b>Faculty Name</b>	MR.AKASH S				<b>No.students</b>	56			
<b>Course Outcome Analysis of students -SUB, Academic Year 2022-23</b>									
Sl.	USN	Course Outcome Number				CO1	CO2	CO3	CO4
		Total Maximum Marks				26	26	27	21
1	1AY18AE053	SARASA SUMANTH				3	1	3	3
2	1AY18AE059	SUPRIYA BABU				3	3	3	3
3	1AY19AE001	A S SHASHANK				3	2	3	3
4	1AY19AE002	ADITYA SANJAY HALORNEKAR				3	3	3	3
5	1AY19AE003	AKRAM BASHA				3	3	3	3
6	1AY19AE004	ANCHARA M				3	3	3	3
7	1AY19AE005	ANEESH NEHRU				3	2	3	3
8	1AY19AE006	ANOOP M S				3	3	3	3
9	1AY19AE007	ANUMOL BHARADWAJ K				3	3	3	3
10	1AY19AE008	AVANTIKA S GAIKWAD				3	1	3	3
11	1AY19AE009	BASAVARAJ T				3	3	3	3
12	1AY19AE010	NIRBHAY BHARAT BHOI				3	3	3	3
13	1AY19AE012	D RANJITHA				2	3	3	3
14	1AY19AE014	DARWIN KANTHARAJ VINCENT				1	2	3	3
15	1AY19AE015	DIPAK JAISWAL				3	1	3	3
16	1AY19AE016	GAGANDEEP D T				1	3	3	3
17	1AY19AE017	H M MIHIR PATEL				3		3	3
18	1AY19AE018	JOSHI HARSH UDAYKUMAR				1	1	3	3
19	1AY19AE019	KAIZAR MERCHANT				1		3	3
20	1AY19AE020	LEAH GEORGE MANAPURATHU				2	3	3	3
21	1AY19AE021	MADHUSHREE N P				3	3	3	3
22	1AY19AE022	MANISH PATEL				3	3	3	3
23	1AY19AE023	MANJUNATH S MUGADAYYANAMATH				1	2	3	3
24	1AY19AE024	MOHAN G M				3	3	3	3
25	1AY19AE025	R VAMSI PRASAD MOHITH				3	3	3	3
26	1AY19AE026	MUNNA KUMAR YADAV				3	3	3	3
27	1AY19AE027	MUZZAMMIL AHMED N				3	3	3	3
28	1AY19AE028	NAVEEN B M				3	3	3	3
29	1AY19AE029	NEHA SHREE C H				3	3	3	3
30	1AY19AE030	PRAJWAL SUARES				3	3	3	3
31	1AY19AE031	PRERANA M BHUTE				3	3	3	3
32	1AY19AE032	PRINCIA JENIFER LEWIS				2	3	3	3
33	1AY19AE033	RADHESHYAM THAKUR				1		3	3
34	1AY19AE034	RAJUPALEM ARAVIND				3	3	3	3
35	1AY19AE035	RAKSHIT M GUDDARADDI				1	3	3	3
36	1AY19AE037	SAHAS S				3	3	3	3
37	1AY19AE039	SAMYAK KINI B				3	2	3	3
38	1AY19AE040	SAYEEMA IFRA				3	3	3	3
39	1AY19AE042	SHARATH KUMAR R				3	3	3	3


AIT/NBA/ CO-ATNT/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> <b>Bengaluru – 560 107</b> <b>Department of Aeronautical Engineering</b>						
<b>Course Title</b>		AIRCRAFT STABILITY AND CONTROL				<b>Course Code</b>		C401
<b>Subject Code</b>		18AE71	<b>Semester</b>	7	<b>Section</b>	A	<b>Emp.ID</b>	AI002075
<b>Faculty Name</b>		MR.AKASH S				<b>No.students</b>		56
40	1AY19AE043	SHASHANK UPPARIGE N R			1	1	3	3
41	1AY19AE044	SHEETHAL JAIN Y N			2	1	3	3
42	1AY19AE045	SHRUTHI S			3	3	3	3
43	1AY19AE046	SIYAS			3	3	3	3
44	1AY19AE047	SNIGDHA RAJ			3	3	3	3
45	1AY19AE048	SOMU PARAPPA HANGARAGI			3	3	3	3
46	1AY19AE049	SOORAJ KRISHNA			3	3	3	3
47	1AY19AE050	TAHIR AHMAD			2	3	3	3
48	1AY19AE051	THIRUMALEGOWDA M K			3	3	3	3
49	1AY19AE052	VISHAL			3	3	3	3
50	1AY19AE053	YASHRAJ SURENDRA SANKHALKAR			2	1	3	3
51	1AY19AE054	YATIN SINGLA			3	3	3	3
52	1AY20AE400	BIPRAJIT DAS			3	3	3	3
53	1AY20AE401	LAKSHMISHA T H			1	3	3	3
54	1AY20AE402	PRASHANTH R			3	2	3	3
55	1AY20AE404	THRISHUL N			1	3	3	3
56	1AY20AE405	VISHAL K			1	3	3	3


Total Attainment	140	139	168	168		
Total Students	56	56	56	56		
Avg. Attainment	2.5	2.5	3	3		
No.students (=3)	39	40	56	56		
Actual Attainment	2.1	2.2	3	3		


  
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AIT/NBA/ CO-REPT/ 2022-23	 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Aeronautical Engineering								
<b>Course Title</b>	AIRCRAFT STABILITY AND CONTROL					<b>Course Code</b>	C401		
<b>Subject Code</b>	18AE71	<b>Semester</b>	7	<b>Section</b>	A	<b>Emp.ID</b>	AI002075		
<b>Faculty Name</b>	MR.AKASH S					<b>No.students</b>	56		
<b>CO Attainment from -SUB, in the Subject: 18AE71-Based on: TYPE-2, Academic Year 2022-23</b>									
<b>Sl.</b>	<b>CO Number</b>	<b>Sum</b>	<b>T_Std</b>	<b>Av-AT</b>	<b>TS(=3)</b>	<b>AT,%</b>	<b>Ac_AT</b>	<b>ATNT</b>	
CO1	C401.1	140	56	2.5	39	70	2.1	YES	
CO2	C401.2	139	56	2.5	40	71	2.2	YES	
CO3	C401.3	168	56	3	56	100	3	YES	
CO4	C401.4	168	56	3	56	100	3	YES	
<b>Distribution of CO Attainment from -SUB, in Subj: 18AE71-Based on: TYPE-2, ACDY:2022-23</b>									
<b>Sl.</b>	<b>CO Number</b>	<b>3</b>	<b>%</b>	<b>2</b>	<b>%</b>	<b>1</b>	<b>%</b>		
CO1	C401.1	39	70	6	11	11	20		
CO2	C401.2	40	71	6	11	7	13		
CO3	C401.3	56	100		0		0		
CO4	C401.4	56	100		0		0		
<b>Remarks of Course Instructor</b>									
<p>Best Practices must be incorporated to enhance the attainment levels of all the CO's. Such as providing few more video lectures, animations and simulations videos along with the conventional study materials, more industry oriented concepts needs to be incorporate in the curriculum for better understanding of concepts</p>									
<b>Signature of HOD/DAC</b>					<b>Signature of Course Instructor</b>				
 Head of the Department Aeronautical Engineering Acharya Institute of Technology Bangalore - 560 107					 PRINCIPAL ACHARYA INSTITUTE OF TECHNOLOGY SOLE EVANAHALLI, BENGALURU - 560 107				


AIT/NBA/ CO-REPT/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> <b>Bengaluru – 560 107</b> <b>Department of Aeronautical Engineering</b>							
Course Title		AIRCRAFT STABILITY AND CONTROL				Course Code	C401		
Subject Code	18AE71	Semester	7	Section	A	Emp.ID	AI002075		
Faculty Name	MR.AKASH S				No.students	56			
CO Analysis from -SUB, in the Subject: 18AE71-Based on: TYPE-2, Academic Year 2022-23									
Sl.	USN	Course Outcome Number				CO1	CO2	CO3	CO4
		Total Maximum Marks				26	26	27	21
1	1AY18AE053	SARASA SUMANTH			Y		Y	Y	
2	1AY18AE059	SUPRIYA BABU			Y	Y	Y	Y	
3	1AY19AE001	A S SHASHANK			Y		Y	Y	
4	1AY19AE002	ADITYA SANJAY HALORNEKAR			Y	Y	Y	Y	
5	1AY19AE003	AKRAM BASHA			Y	Y	Y	Y	
6	1AY19AE004	ANCHARA M			Y	Y	Y	Y	
7	1AY19AE005	ANEESH NEHRU			Y		Y	Y	
8	1AY19AE006	ANOOP M S			Y	Y	Y	Y	
9	1AY19AE007	ANUMOL BHARADWAJ K			Y	Y	Y	Y	
10	1AY19AE008	AVANTIKA S GAIKWAD			Y		Y	Y	
11	1AY19AE009	BASAVARAJ T			Y	Y	Y	Y	
12	1AY19AE010	NIRBHAY BHARAT BHOI			Y	Y	Y	Y	
13	1AY19AE012	D RANJITHA				Y	Y	Y	
14	1AY19AE014	DARWIN KANTHARAJ VINCENT					Y	Y	
15	1AY19AE015	DIPAK JAISWAL			Y		Y	Y	
16	1AY19AE016	GAGANDEEP D T				Y	Y	Y	
17	1AY19AE017	H M MIHIR PATEL			Y		Y	Y	
18	1AY19AE018	JOSHI HARSH UDAYKUMAR					Y	Y	
19	1AY19AE019	KAIZAR MERCHANT					Y	Y	
20	1AY19AE020	LEAH GEORGE MANAPURATHU				Y	Y	Y	
21	1AY19AE021	MADHUSHREE N P			Y	Y	Y	Y	
22	1AY19AE022	MANISH PATEL			Y	Y	Y	Y	
23	1AY19AE023	MANJUNATH S MUGADAYYANAMATH					Y	Y	
24	1AY19AE024	MOHAN G M			Y	Y	Y	Y	
25	1AY19AE025	R VAMSI PRASAD MOHITH			Y	Y	Y	Y	
26	1AY19AE026	MUNNA KUMAR YADAV			Y	Y	Y	Y	
27	1AY19AE027	MUZZAMMIL AHMED N			Y	Y	Y	Y	
28	1AY19AE028	NAVEEN B M			Y	Y	Y	Y	
29	1AY19AE029	NEHA SHREE C H			Y	Y	Y	Y	
30	1AY19AE030	PRAJWAL SUARES			Y	Y	Y	Y	
31	1AY19AE031	PRERANA M BHUTE			Y	Y	Y	Y	
32	1AY19AE032	PRINCIA JENIFER LEWIS				Y	Y	Y	
33	1AY19AE033	RADHESHYAM THAKUR					Y	Y	
34	1AY19AE034	RAJUPALEM ARAVIND			Y	Y	Y	Y	
35	1AY19AE035	RAKSHIT M GUDDARADDI				Y	Y	Y	
36	1AY19AE037	SAHAS S			Y	Y	Y	Y	
37	1AY19AE039	SAMYAK KINI B			Y		Y	Y	
38	1AY19AE040	SAYEEMA IFRA			Y	Y	Y	Y	
39	1AY19AE042	SHARATH KUMAR R			Y	Y	Y	Y	
40	1AY19AE043	SHASHANK UPPARIGE N R					Y	Y	


AIT/NBA/ CO-REPT/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 <b>Department of Aeronautical Engineering</b>							
Course Title		AIRCRAFT STABILITY AND CONTROL				Course Code		C401	
Subject Code		18AE71	Semester	7	Section	A	Emp.ID	AI002075	
Faculty Name		MR.AKASH S				No.students		56	
41	1AY19AE044	SHEETHAL JAIN Y N					Y	Y	
42	1AY19AE045	SHRUTHI S			Y	Y	Y	Y	
43	1AY19AE046	SIYAS			Y	Y	Y	Y	
44	1AY19AE047	SNIGDHA RAJ			Y	Y	Y	Y	
45	1AY19AE048	SOMU PARAPPA HANGARAGI			Y	Y	Y	Y	
46	1AY19AE049	SOORAJ KRISHNA			Y	Y	Y	Y	
47	1AY19AE050	TAHIR AHMAD				Y	Y	Y	
48	1AY19AE051	THIRUMALEGOWDA M K			Y	Y	Y	Y	
49	1AY19AE052	VISHAL			Y	Y	Y	Y	
50	1AY19AE053	YASHRAJ SURENDRA SANKHALKAR					Y	Y	
51	1AY19AE054	YATIN SINGLA			Y	Y	Y	Y	
52	1AY20AE400	BIPRAJIT DAS			Y	Y	Y	Y	
53	1AY20AE401	LAKSHMISHA T H				Y	Y	Y	
54	1AY20AE402	PRASHANTH R			Y		Y	Y	
55	1AY20AE404	THRISHUL N				Y	Y	Y	
56	1AY20AE405	VISHAL K				Y	Y	Y	


  
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AIT/NBA/ SEE-MARKS/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Aeronautical Engineering						
Course Title		AIRCRAFT STABILITY AND CONTROL				Course Code	C401	
Subject Code		18AE71	Semester	7	Section	A	Emp.ID	AI002075
Faculty Name		MR.AKASH S				No.students	56	
		Format for Entry of Semester End Examination Marks				40	60	100
Sl.	USN	NAME				CIE	SEE	Total
1	1AY18AE053	SARASA SUMANTH				22	38	60
2	1AY18AE059	SUPRIYA BABU				27	21	48
3	1AY19AE001	A S SHASHANK				29	25	54
4	1AY19AE002	ADITYA SANJAY HALORNEKAR				38	54	92
5	1AY19AE003	AKRAM BASHA				36	54	90
6	1AY19AE004	ANCHARA M				40	48	88
7	1AY19AE005	ANEESH NEHRU				21	40	61
8	1AY19AE006	ANOOP M S				38	43	81
9	1AY19AE007	ANUMOL BHARADWAJ K				34	47	81
10	1AY19AE008	AVANTIKA S GAIKWAD				33	50	83
11	1AY19AE009	BASAVARAJ T				32	41	73
12	1AY19AE010	NIRBHAY BHARAT BHOI				24	30	54
13	1AY19AE012	D RANJITHA				35	46	81
14	1AY19AE014	DARWIN KANTHARAJ VINCENT				28	31	59
15	1AY19AE015	DIPAK JAISWAL				36	48	84
16	1AY19AE016	GAGANDEEP D T				20	32	52
17	1AY19AE017	H M MIHIR PATEL				33	34	67
18	1AY19AE018	JOSHI HARSH UDAYKUMAR				30	51	81
19	1AY19AE019	KAIZAR MERCHANT				28	45	73
20	1AY19AE020	LEAH GEORGE MANAPURATHU				32	37	69
21	1AY19AE021	MADHUSHREE N P				35	56	91
22	1AY19AE022	MANISH PATEL				35	38	73
23	1AY19AE023	MANJUNATH S MUGADAYYANAMATH				31	48	79
24	1AY19AE024	MOHAN G M				31	40	71
25	1AY19AE025	R VAMSI PRASAD MOHITH				36	24	60
26	1AY19AE026	MUNNA KUMAR YADAV				33	48	81
27	1AY19AE027	MUZZAMMIL AHMED N				38	50	88
28	1AY19AE028	NAVEEN B M				38	48	86
29	1AY19AE029	NEHA SHREE C H				36	58	94
30	1AY19AE030	PRAJWAL SUARES				37	39	76
31	1AY19AE031	PRERANA M BHUTE				34	49	83
32	1AY19AE032	PRINCIA JENIFER LEWIS				32	38	70
33	1AY19AE033	RADHESHYAM THAKUR				20	33	53
34	1AY19AE034	RAJUPALEM ARAVIND				37	35	72
35	1AY19AE035	RAKSHIT M GUDDARADDI				32	42	74
36	1AY19AE037	SAHAS S				40	58	98
37	1AY19AE039	SAMYAK KINI B				34	35	69
38	1AY19AE040	SAYEEMA IFRA				30	24	54
39	1AY19AE042	SHARATH KUMAR R				32	44	76
40	1AY19AE043	SHASHANK UPPARIGE N R				26	40	66

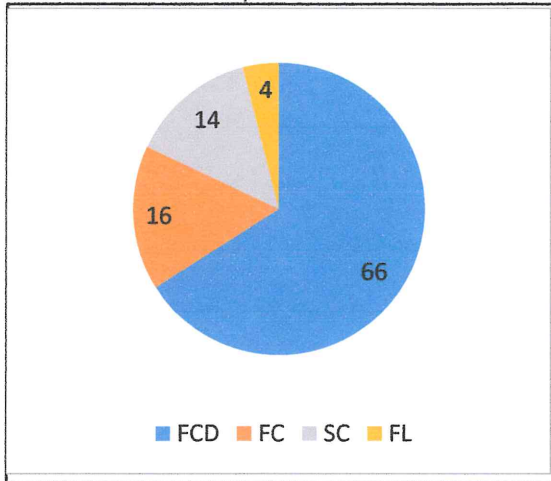
AIT/NBA/ SEE-MARKS/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 <b>Department of Aeronautical Engineering</b>					
<b>Course Title</b>		AIRCRAFT STABILITY AND CONTROL				<b>Course Code</b>	C401
<b>Subject Code</b>		18AE71	<b>Semester</b>	7	<b>Section</b>	A	<b>Emp.ID</b>
<b>Faculty Name</b>		MR.AKASH S				<b>No.students</b>	56
		<b>Format for Entry of Semester End Examination Marks</b>				40	60
						100	
<b>Sl.</b>	<b>USN</b>	<b>NAME</b>				<b>CIE</b>	<b>SEE</b>
						<b>Total</b>	
41	1AY19AE044	SHEETHAL JAIN Y N				23	27
42	1AY19AE045	SHRUTHI S				40	42
43	1AY19AE046	SIYAS				10	0
44	1AY19AE047	SNIGDHA RAJ				34	26
45	1AY19AE048	SOMU PARAPPA HANGARAGI				32	44
46	1AY19AE049	SOORAJ KRISHNA				27	0
47	1AY19AE050	TAHIR AHMAD				34	39
48	1AY19AE051	THIRUMALEGOWDA M K				30	48
49	1AY19AE052	VISHAL				36	38
50	1AY19AE053	YASHRAJ SURENDRA SANKHALKAR				32	47
51	1AY19AE054	YATIN SINGLA				36	35
52	1AY20AE400	BIPRAJIT DAS				32	39
53	1AY20AE401	LAKSHMISHA T H				29	35
54	1AY20AE402	PRASHANTH R				31	45
55	1AY20AE404	THRISHUL N				31	45
56	1AY20AE405	VISHAL K				31	52

  
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<b>Course Title</b>	AIRCRAFT STABILITY AND CONTROL				<b>Course Code</b>	C401	
<b>Subject Code</b>	18AE71	<b>Semester</b>	7	<b>Section</b>	A	<b>Emp.ID</b>	AI002075
<b>Faculty Name</b>	MR.AKASH S				<b>No.students</b>	56	

**Result Analysis of Subject Code -18AE71 - for the Academic year 2022-23**



Result Analysis of Section: 7 - A				
No. Students	Pass	%	Fail	%
56	54	96	2	4

Class Analysis of Section: 7 - A			
No. Students	56	%	Grade Point
FCD	37	66	10,9,8
FC	9	16	7
SC	8	14	6,4
FL	2	4	0

Max. and Avg. Marks					
CIE	AVG	SEE	AVG	TOT	AVG
40	32	60	40	100	71

CO Attainment in SEE	
Sum_AT	141
T_students	56
Avg.ATNT	2.5
Sum_AT(=3)	39
AT(=3)%	70
Attainment	YES


ANALYSIS OF GRADE POINT AND GRADE LETTER							
Grade Letter	S	A	B	C	D	E	F
Grade Point	10	9	8	7	6	4	0
No.of Students	5	13	19	9	8		2
% of Students	9	23	34	16	14		4


<b>CIE and SEE correlation Coefficient</b>	<b>0.58</b>
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**Course Coordinator Remarks on Semester End Results for the Academic Year 2022-23**


The Overall FCD's are 66%, FC's are 16% and pass percentage is 96% which is pretty good compared to previous semesters and FCD's Percentage is very high compared to previous academic years. However slowlearners were handled with remedial classes for improving the target attainment also additional materials was given to secure good marks in external exam.

Signature of Course Coordinator  Signature HOD/DAC 

AIT/NBA/ SEE-REPT/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> <b>Bengaluru – 560 107</b> <b>Department of Aeronautical Engineering</b>									
Course Title		AIRCRAFT STABILITY AND CONTROL						Course Code	C401		
Subject Code		18AE71	Semester	7	Section	A	Emp.ID	AI002075			
Faculty Name		MR.AKASH S						No.students	56		
		Format for Entry of Semester End Examination Marks							40	60	100
Sl.	USN	NAME	CIE	SEE	TOT	Result	Class	ATNT	Grade	Rank	
1	1AY18AE053	SARASA SUMANTH	22	38	60	PASS	FC	3	7	25	
2	1AY18AE059	SUPRIYA BABU	27	21	48	PASS	SC	1	6	31	
3	1AY19AE001	A S SHASHANK	29	25	54	PASS	SC	1	6	27	
4	1AY19AE002	ADITYA SANJAY HALORNEKAR	38	54	92	PASS	FCD	3	10	3	
5	1AY19AE003	AKRAM BASHA	36	54	90	PASS	FCD	3	10	5	
6	1AY19AE004	ANCHARA M	40	48	88	PASS	FCD	3	9	6	
7	1AY19AE005	ANEESH NEHRU	21	40	61	PASS	FC	3	7	24	
8	1AY19AE006	ANOOP M S	38	43	81	PASS	FCD	3	9	11	
9	1AY19AE007	ANUMOL BHARADWAJ K	34	47	81	PASS	FCD	3	9	11	
10	1AY19AE008	AVANTIKA S GAIKWAD	33	50	83	PASS	FCD	3	9	9	
11	1AY19AE009	BASAVARAJ T	32	41	73	PASS	FCD	3	8	16	
12	1AY19AE010	NIRBHAY BHARAT BHOI	24	30	54	PASS	SC	2	6	27	
13	1AY19AE012	D RANJITHA	35	46	81	PASS	FCD	3	9	11	
14	1AY19AE014	DARWIN KANTHARAJ VINCENT	28	31	59	PASS	SC	2	6	26	
15	1AY19AE015	DIPAK JAISWAL	36	48	84	PASS	FCD	3	9	8	
16	1AY19AE016	GAGANDEEP D T	20	32	52	PASS	SC	2	6	29	
17	1AY19AE017	H M MIHIR PATEL	33	34	67	PASS	FC	2	7	21	
18	1AY19AE018	JOSHI HARSH UDAYKUMAR	30	51	81	PASS	FCD	3	9	11	
19	1AY19AE019	KAIZAR MERCHANT	28	45	73	PASS	FCD	3	8	16	
20	1AY19AE020	LEAH GEORGE MANAPURATHU	32	37	69	PASS	FC	3	7	20	
21	1AY19AE021	MADHUSHREE N P	35	56	91	PASS	FCD	3	10	4	
22	1AY19AE022	MANISH PATEL	35	38	73	PASS	FCD	3	8	16	
23	1AY19AE023	MANJUNATH S MUGADAYYANAN	31	48	79	PASS	FCD	3	8	12	
24	1AY19AE024	MOHAN G M	31	40	71	PASS	FCD	3	8	18	
25	1AY19AE025	R VAMSI PRASAD MOHITH	36	24	60	PASS	FC	1	7	25	
26	1AY19AE026	MUNNA KUMAR YADAV	33	48	81	PASS	FCD	3	9	11	
27	1AY19AE027	MUZZAMMIL AHMED N	38	50	88	PASS	FCD	3	9	6	
28	1AY19AE028	NAVEEN B M	38	48	86	PASS	FCD	3	9	7	
29	1AY19AE029	NEHA SHREE C H	36	58	94	PASS	FCD	3	10	2	
30	1AY19AE030	PRAJWAL SUARES	37	39	76	PASS	FCD	3	8	14	
31	1AY19AE031	PRERANA M BHUTE	34	49	83	PASS	FCD	3	9	9	
32	1AY19AE032	PRINCIA JENIFER LEWIS	32	38	70	PASS	FCD	3	8	19	
33	1AY19AE033	RADHESHYAM THAKUR	20	33	53	PASS	SC	2	6	28	
34	1AY19AE034	RAJUPALEM ARAVIND	37	35	72	PASS	FCD	2	8	17	
35	1AY19AE035	RAKSHIT M GUDDARADDI	32	42	74	PASS	FCD	3	8	15	
36	1AY19AE037	SAHAS S	40	58	98	PASS	FCD	3	10	1	
37	1AY19AE039	SAMYAK KINI B	34	35	69	PASS	FC	2	7	20	
38	1AY19AE040	SAYEEMA IFRA	30	24	54	PASS	SC	1	6	27	
39	1AY19AE042	SHARATH KUMAR R	32	44	76	PASS	FCD	3	8	14	
40	1AY19AE043	SHASHANK UPPARIGE N R	26	40	66	PASS	FC	3	7	22	

AIT/NBA/ SEE-REPT/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> <b>Bengaluru – 560 107</b> <b>Department of Aeronautical Engineering</b>										
Course Title		AIRCRAFT STABILITY AND CONTROL						Course Code		C401		
Subject Code		18AE71	Semester	7	Section		A	Emp.ID		AI002075		
Faculty Name		MR.AKASH S						No.students		56		
41	1AY19AE044	SHEETHAL JAIN Y N			23	27	50	PASS	SC	1	6	30
42	1AY19AE045	SHRUTHI S			40	42	82	PASS	FCD	3	9	10
43	1AY19AE046	SIYAS			10	0	10	FAIL			0	33
44	1AY19AE047	SNIGDHA RAJ			34	26	60	PASS	FC	1	7	25
45	1AY19AE048	SOMU PARAPPA HANGARAGI			32	44	76	PASS	FCD	3	8	14
46	1AY19AE049	SOORAJ KRISHNA			27	0	27	FAIL			0	32
47	1AY19AE050	TAHIR AHMAD			34	39	73	PASS	FCD	3	8	16
48	1AY19AE051	THIRUMALEGOWDA M K			30	48	78	PASS	FCD	3	8	13
49	1AY19AE052	VISHAL			36	38	74	PASS	FCD	3	8	15
50	1AY19AE053	YASHRAJ SURENDRA SANKHALKA			32	47	79	PASS	FCD	3	8	12
51	1AY19AE054	YATIN SINGLA			36	35	71	PASS	FCD	2	8	18
52	1AY20AE400	BIPRAJIT DAS			32	39	71	PASS	FCD	3	8	18
53	1AY20AE401	LAKSHMISHA T H			29	35	64	PASS	FC	2	7	23
54	1AY20AE402	PRASHANTH R			31	45	76	PASS	FCD	3	8	14
55	1AY20AE404	THRISHUL N			31	45	76	PASS	FCD	3	8	14
56	1AY20AE405	VISHAL K			31	52	83	PASS	FCD	3	9	9

..... \*\*\* END \*\*\* .....

  
**Head of the Department**  
 Aeronautical Engineering  
 Acharya Institute of Technology  
 Bangalore - 560 107

  
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 SOLDEVANAHALLI, BENGALURU - 560 107


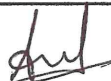



<b>Course.Title:</b>	<b>AIRCRAFT STABILITY AND CONTROL</b>				<b>Course.ID:</b>	<b>C401</b>	
<b>Course.Code:</b>	<b>18AE71</b>	<b>Semester:</b>	<b>7</b>	<b>Section:</b>	<b>A</b>	<b>Emp.ID::</b>	<b>AI002075</b>
<b>Faculty Name:</b>	<b>MR.AKASH S</b>				<b>No.Stds</b>	<b>56</b>	

### COURSE END SURVEY

Rating By the student in the scale of 0 to 3  
Strongly Agree=3, Agree=2, Some Extent Agree =1

CO Mapping		1	2	3	4								
Sl.	Response No	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
1	1AY18AE059	2	2	2	2								
2	1AY19AE001	3	3	2	2								
3	1AY19AE004	3	3	3	3								
4	1AY19AE007	3	3	3	3								
5	1AY19AE008	2	2	2	2								
6	1AY19AE010	1	1	1	1								
7	1AY19AE012	2	2	2	2								
8	1AY19AE015	3	3	3	3								
9	1AY19AE016	3	3	3	3								
10	1AY19AE017	3	3	3	3								
11	1AY19AE019	2	2	2	2								
12	1AY19AE021	3	3	3	3								
13	1AY19AE022	3	2	3	3								
14	1AY19AE025	3	3	3	3								
15	1AY19AE026	2	2	2	2								
16	1AY19AE030	2	3	3	2								
17	1AY19AE032	3	2	2	2								
18	1AY19AE033	1	1	1	1								
19	1AY19AE034	3	3	3	3								
20	1AY19AE035	3	2	3	3								
21	1AY19AE037	3	3	3	3								
22	1AY19AE039	3	2	3	2								
23	1AY19AE040	2	2	2	2								
24	1AY19AE043	3	3	3	3								
25	1AY19AE045	2	2	2	2								
26	1AY19AE048	3	2	3	3								
27	1AY19AE053	3	2	2	2								
28	1AY19AE054	3	3	3	3								
29	1AY20AE400	3	2	2	3								
30	1AY20AE401	2	2	2	2								
31	1AY20AE402	3	3	3	3								
32	1AY20AE404	3	3	2	2								
33	1AY19AE405	2	2	2	2								
34													

AIT/NBA/ S&F-REPT/ 2022-23		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Aeronautical Engineering					
<b>Course Title</b>		AIRCRAFT STABILITY AND CONTROL				<b>Course Code</b>	C401
<b>Subject Code</b>	18AE71	<b>Semester</b>	7	<b>Section</b>	A	<b>Emp.ID</b>	AI002075
<b>Faculty Name</b>		MR.AKASH S				<b>No.students</b>	56
<b>List of 10 Students scored Highest Marks (F)</b>							
<b>Sl.</b>	<b>USN</b>	<b>NAME</b>		<b>Total_Marks</b>	<b>Rank</b>	<b>Remarks</b>	
1	1AY19AE045	SHRUTHI S		100	1		
2	1AY19AE004	ANCHARA M		98.8	2		
3	1AY19AE037	SAHAS S		98.2	3		
4	1AY19AE028	NAVEEN B M		94	4		
5	1AY19AE002	ADITYA SANJAY HALORNEKAR		94	4		
6	1AY19AE006	ANOOP M S		94	4		
7	1AY19AE027	MUZZAMMIL AHMED N		92.8	5		
8	1AY19AE030	PRAJWAL SUARES		90.4	6		
9	1AY19AE034	RAJUPALEM ARAVIND		89.8	7		
10	1AY19AE003	AKRAM BASHA		88.6	8		
<b>List of 10 Students scored Lowest Marks (S)</b>							
<b>Sl.</b>	<b>USN</b>	<b>NAME</b>		<b>Total_Marks</b>	<b>Rank</b>	<b>Remarks</b>	
1	1AY19AE046	SIYAS		10	42		
2	1AY19AE033	RADHESHYAM THAKUR		40	41		
3	1AY19AE005	ANEESH NEHRU		40.6	40		
4	1AY19AE016	GAGANDEEP D T		41.2	39		
5	1AY18AE053	SARASA SUMANTH		43	38		
6	1AY19AE044	SHEETHAL JAIN Y N		50.2	37		
7	1AY19AE010	NIRBHAY BHARAT BHOI		50.8	36		
8	1AY19AE043	SHASHANK UPPARIGE N R		56.2	35		
9	1AY19AE049	SOORAJ KRISHNA		61	34		
10	1AY18AE059	SUPRIYA BABU		61.6	33		
<b>Remarks of Course Instructor</b>							
<p>The fast learners are provided with, opportunities for advanced learning and exploration, access to diverse resources, and the flexibility to learn at their own pace. Targets for all the CO's has been attained. The slow learners were handled with remedial classes for improving the target attainment also additional materials was given to understand the concepts more clearly which also helps them to secure decent marks in examinations</p>							
 Signature of Course Instructor				 Signature of HOD/DAC <b>Head of the Department</b> Aeronautical Engineering Acharya Institute of Technology Bangalore - 560 107			



# ACHARYA INSTITUTE OF TECHNOLOGY

Affiliated to Visvesvaraya Technological University, Belagavi  
Approved by AICTE, New Delhi, Recognized by Govt. of Karnataka  
and Accredited by NBA (AE, BT, CSE, ECE, ME, MT)

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## COMPUTATION OF CO-PO ATTAINMENT FOR ONE BATCH (2018-2022)




**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Aeronautical Engineering

AIT-2022-V1.0

<b>Programme Name</b>	<b>Aeronautical Engineering</b>		<b>AE</b>
<b>Scheme:</b>	<b>2018</b>	<b>Number of subjects (1-8 sem)</b>	<b>61</b>
<b>Year of Admission</b>	<b>2018</b>	<b>Year of Graduation</b>	<b>2022</b>

<b>RUN-0</b> LIST-COS	<b>RUN-1</b> TAB-PO-PSO	<b>RUN-2</b> AVG-PO-MAP	<b>RUN-3</b> AVG-PSO-MAP
<b>RUN - 4</b> DI-PO-ATN	<b>RUN - 5</b> IN-PO-ATN	<b>RUN - 6</b> TA-PO-ATN	
<b>RUN-7</b> DI-PSO-ATN	<b>RUN-8</b> IN-PSO-ATN	<b>RUN-9</b> TA-PSO-ATN	
<b>RUN-10</b> CIE, SEE CES-Tab-ATN	<b>RUN -11</b> CIE, SEE CES-avg ATN	<b>RUN-12</b> BTLs	

  
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ACHARYA INSTITUTE OF TECHNOLOGY  
SOLDEVANAHALLI, BENGALURU - 560 107



List of Course Outcome (CO) Statements for the Batch : 2018				
Graduation Period : 2018-to-2022		Scheme :	2018	No.of Courses : 61
COs	Description of Course Outcome statments			
C108.2	Implement English vocabulary at command & language proficiency			
C108.3	Identify common errors in spoken & written communication			
C108.4	Understand & improve the non verbal communication and kinesics			
C108.5	Perform well in campus recruitment, engineering and all other general competitive examinations.			
<b>C111</b>	<b>Course Title</b>	<b>Calculus and Linear Algebra</b>		<b>2018-19 18MAT21</b>
C111.1	Understand the concepts of Differential equations, Vector calculus, Numerical methods and Series solutions.			
C111.2	Demonstrate various physical phenomena using the concepts of Differential equations, Vector calculus, Numerical methods and Series solutions.			
C111.3	Able to apply the concepts of differential equations Vector calculus, Numerical methods and Series solution.			
<b>C112</b>	<b>Course Title</b>	<b>Engineering Physics</b>		<b>2018-19 18PHY12</b>
C112.1	To learn the basic principles of physics to analyse practical engineering problems and apply its solutions effectively and meaningfully.			
C112.2	To understand building up of models, design issues, practical oriented skills and problem solving challenges.			
C112.3	To know more about the applications of engineering physics in the new technologies.			
<b>C101</b>	<b>Course Title</b>	<b>Basic Electrical Engg</b>		<b>2018-19 18ELE31</b>
C101.1	Analyze DC and AC circuits.			
C101.2	Identify DC and AC machines, domestic wiring and protective devices required for particular application.			
C101.3	Implement electrical and electromagnetic laws to solve problems on DC and AC circuits and machines			
C101.4	Explain the constructional and working principle of DC and AC machines.			
<b>C112</b>	<b>Course Title</b>	<b>Elements of Civil Engineering and Mechanics</b>		<b>2018-19 18CIV24</b>
CO1	Define different fields of civil engineering			
CO2	Explain different force systems, frictional forces, principles of kinematics			
CO3	Solve resultant forces, support reactions, frictional forces, centroid of plane figures, Moment of inertia			
<b>C115</b>	<b>Course Title</b>	<b>Engineering Graphics</b>		<b>2018-19 18EGDL25</b>
C115.1	Draw the orthographic projections of points, lines and planes.			
C115.2	Draw the orthographic projections of solids.			
C115.3	Draw the isometric projections and development of lateral surfaces of solids.			
<b>C116</b>	<b>Course Title</b>	<b>Engineering Physics Lab</b>		<b>2018-19 18PHYL16</b>
C116.1	Have the practical knowledge of optical, mechanical, electrical and electronic experiments			
C116.2	Understand principal, concept, working and application of new technology and comparison of result with theoretical calculation			
C116.3	Apply the measurement technology, usage of new instruments in real time application in engineering studies.			
<b>C107</b>	<b>Course Title</b>	<b>Basic Electrical Engineering Lab</b>		<b>2018-19 18ELEL17</b>
C107.1	Design the circuit with given specification.			
C107.2	Conduct the experiments with given specification.			
C107.3	Tabulate and validate the readings and infer the results graphically.			

List of Course Outcome (CO) Statements for the Batch : 2018				
Graduation Period : 2018-to-2022		Scheme :	2018	No.of Courses : 61
COs	Description of Course Outcome statements			
C107.4	Interpret the concepts and results both orally and written.			
<b>C118</b>	<b>Course Title</b>	<b>Technical English-2</b>		<b>2018-19 18EGH28</b>
C118.1	Use Grammatically English and essentials of language skills & identify the nuances of Phonetics, intonation & flawless pronunciation			
C118.2	Implement English vocabulary at command & language proficiency			
C118.3	Identify common errors in spoken & written communication			
C118.4	Understand & improve the non verbal communication and kinesics			
C118.5	Perform well in campus recruitment, engineering and all other general competitive examinations.			
<b>C201</b>	<b>Course Title</b>	<b>Tranform Calculus, Fourier Series &amp; Numerical Techniques</b>		<b>2019-20 18MAT31</b>
C201.1	Have the knowledge of Laplace Transforms, Fourier series, Fourier transforms, Z-transforms, Calculus of variations and Numerical methods.			
C201.2	Solve Engineering problems using Laplace Transforms, Fourier series, Fourier transforms, Numerical methods and Calculus of Variation.			
C201.3	Communicate and reflect on applications of Mathematics as tool.			
<b>C202</b>	<b>Course Title</b>	<b>Aero Thermodynamics</b>		<b>2019-20 18AE32</b>
C202.1	Apply the concepts and definitions of thermodynamics.			
C202.2	Differentiate and Understanding the concept of thermodynamic work and heat			
C202.3	Apply I law and II law of thermodynamics to different process.			
C202.4	Apply the principles of various thermodynamic gas cycles			
<b>C203</b>	<b>Course Title</b>	<b>Mechanics of Materials</b>		<b>2019-20 18AE33</b>
C203.1	Understand Elastic Properties of Materials, Different types of stress due to application of loads and energy stored in various structural members			
C203.2	Compute the relation for stress and strain distribution, Shear force and Bending moment diagram			
C203.3	Apply the Loads for Torque and stability of columns			
C203.4	Analyze the stresses, strains and strain energy in Bars, Cylinders, Beams.			
<b>C204</b>	<b>Course Title</b>	<b>Elements of Aeronautics</b>		<b>2019-20 18AE34</b>
C204.1	Describe the basic principles of aviation & Aircraft Systems.			
C204.2	Discuss the basics of aircraft structures, materials, and concepts of aircraft propulsion.			
C204.3	Determine the performance parameters in the design of flight vehicles.			
C204.4	Analyze the stability and control of flight vehicle.			
<b>C205</b>	<b>Course Title</b>	<b>Fluid Mechanics</b>		<b>2019-20 18AE35</b>
C205.1	Discuss the fluid pressure and use various devices for measuring fluid pressure			
C205.2	Understand the hydrostatic force and use the law of conservation of mass to fluid flow.			
C205.3	Apply Bernoulli's equation to fluid flow problems and boundary layer theory to determine lift and drag forces on a submerged body.			
C205.4	Apply appropriate equations and principles to analyze flow problems.			
<b>C206</b>	<b>Course Title</b>	<b>Measurment and Metrology</b>		<b>2019-20 18AE36</b>

List of Course Outcome (CO) Statements for the Batch : 2018				
Graduation Period : 2018-to-2022		Scheme :	2018	No.of Courses : 61
COs	Description of Course Outcome statements			
C206.1	Explain the basics of standards of measurement, limits, fits & tolerances and uses of gauging.			
C206.2	Understand the significance of measurement system, errors, transducers, intermediate modifying and terminating devices			
C206.3	Interpret measurement of field variables like force, torque and pressure			
C206.4	Comprehend the fundamentals of thermocouple and strain measurement			
<b>C207</b>	<b>Course Title</b>	<b>Measurements and Metrology Lab</b>		<b>2019-20 18AEL37A</b>
C207.1	Explain the principle of measuring tools related to experiments.			
C207.2	Understand the accuracy, precision, and some additional terminology.			
C207.3	Interpret and present measurement data from measurements experiments.			
C207.4	Examine and compare the experimental results.			
<b>C208</b>	<b>Course Title</b>	<b>Machinshop Lab</b>		<b>2019-20 18AEL38</b>
C208.1	Understand the machining processes and tools			
C208.2	Demonstrate the operation of general-purpose machine tools and manufacturing process			
C208.3	Identify the special purpose machine tools for specific requirements			
C208.4	Develop physical models using different manufacturing processes.			
<b>C211</b>	<b>Course Title</b>	<b>Complex Analysis, Probability and Sampling Distributions.</b>		<b>2019-20 18MAT41</b>
C211.1	Have the knowledge of statistical methods complex variables, probability and sampling theory.			
C211.2	Compute the solutions using complex variables, statistical methods and probability and sampling theory.			
C211.3	Interpret the solutions using complex variables, statistical methods and probability and sampling theory.			
<b>C212</b>	<b>Course Title</b>	<b>Aerodynamics - I</b>		<b>2020-21 18AE42</b>
C212.1	Understand the basics of fluid mechanics			
C212.2	Evaluate typical airfoil characteristics and two-dimensional flows over airfoil			
C212.3	Compute and analyse the incompressible flow over finite wings			
C212.4	Apply finite wing theory and design high lift systems from the aerodynamics view point			
<b>C213</b>	<b>Course Title</b>	<b>Aircraft Propulsion</b>		<b>2019-20 18AE43</b>
C213.1	Understand the concept of Basics of Thermodynamics			
C213.2	Explain the functions of centrifugal, axial compressors, axial and radial turbines			
C213.3	Analyse the performance of nozzles & inlets and combustion chamber.			
C213.4	Apply the basic principle and theory of aircraft propulsion.			
<b>C214</b>	<b>Course Title</b>	<b>Mechanisms and Machine Theory</b>		<b>2019-20 18AE44</b>
C214.1	Understand the basics of mechanisms.			
C214.2	Explain the concepts of velocity, acceleration and static force analysis to design of mechanisms.			
C214.3	Interpret spur gears, gear train, balancing of rotating and reciprocating masses.			

List of Course Outcome (CO) Statements for the Batch : 2018				
Graduation Period : 2018-to-2022		Scheme :	2018	No.of Courses : 61
COs	Description of Course Outcome statments			
C214.4	Comprehend the governors and gyroscope			
<b>C215</b>	<b>Course Title</b>	<b>Aircraft Material science</b>		<b>2019-20 18AE45</b>
C215.1	Identify appropriate aircraft materials for a given application			
C215.2	Comprehend composite materials and polymer usage in aerospace applications.			
C215.3	Explain the properties of super alloys, ablative materials and high energy material			
C215.4	Understand material corrosion process and apply prevention technique			
<b>C216</b>	<b>Course Title</b>	<b>Turbomachines</b>		<b>2019-20 18AE46</b>
C216.1	Acquire the knowledge on basics of turbomachines and the energy transformation during different processes.			
C216.2	Derive the governing equations for different processes in turbomachines.			
C216.3	Solve for different design parameters in turbomachines.			
C216.4	Analyze the design of turbomachine blades.			
<b>C217</b>	<b>Course Title</b>	<b>Material Testing Lab</b>		<b>2019-20 18AEL47A</b>
C217.1	Understand the different material properties, heat treatment processes and microstructures of the materials.			
C217.2	Perform destructive and non-destructive test on materials to find different strengths and characteristics of materials.			
C217.3	Tabulate the readings and interpret the results Graphically/mathematically			
<b>C218</b>	<b>Course Title</b>	<b>Computer Aided Aircraft Drawing</b>		<b>2019-20 18AEL48</b>
C218.1	Understand the design/assembly drawings.			
C218.2	Familiarize yourself with the tools in the standard CAD package.			
C218.3	Draw orthographic projections and sectional views of standard primitives, thread forms,			
C218.4	Model parts and assembly of aircraft components.			
<b>C301</b>	<b>Course Title</b>	<b>Management and Entrepreneurship</b>		<b>2020-21 18AE51</b>
C301.1	Understand the foundation of management and planning.			
C301.2	Comprehend the concept of planning,organising,staffing,directing and controlling in a mangement cycle.			
C301.3	Distinguish Entrepreneur,Intrapreneur and responsibilities of organisations towards society.			
C301.4	Describe the process of setting up small-scale industries.			
<b>C302</b>	<b>Course Title</b>	<b>Aerodynamics - II</b>		<b>2020-21 18AE52</b>
C302.1	Discuss the concepts of compressible flow in one dimension			
C302.2	Apply knowledge of oblique and normal shock			
C302.3	Solve the differential equation for steady compressible flow			
C302.4	Illustrate the method of measuring the parameters in high speed flow			
<b>C303</b>	<b>Course Title</b>	<b>Aircraft Structures-I</b>		<b>2020-21 18AE53</b>
C303.1	Describe the basic concepts of stress, strain, load, static strength, impact and fatigue strength.			
C303.2	Categorize the appropriate materials for suitable application based on properties.			

List of Course Outcome (CO) Statements for the Batch : 2018				
Graduation Period : 2018-to-2022		Scheme :	2018	No.of Courses : 61
COs	Description of Course Outcome statments			
C303.3	Deduce the governing equations for different loading conditions.			
C303.4	Solve for the parameters in different Aircraft structural components.			
<b>C304</b>	<b>Course Title</b>	<b>Introduction to Composites</b>		<b>2020-21 18AE54</b>
C304.1	Explain the advantages of using composite materials as an alternative to conventional materials for specific applications			
C304.2	Describe the advanced fabrication and processing for producing composite parts			
C304.3	Evaluate the micro- and macro-mechanical behaviour of composite laminates			
C304.4	Conduct the test for the composite materials and check the quality of composites			
<b>C305</b>	<b>Course Title</b>	<b>Aircraft System and Instrumentation</b>		<b>2020-21 18AE55</b>
C305.1	Distinguish the conventional and modern control systems.			
C305.2	Classify the Aircraft Systems			
C305.3	Categorize different types of aircraft instruments			
C305.4	Identify the conventional and modern control systems.			
<b>C306</b>	<b>Course Title</b>	<b>Theory of Vibrations</b>		<b>2020-21 18AE56</b>
C306.1	Apply the principle of super position to Simple Harmonic Motions			
C306.2	Differentiate the free and forced vibrations with dampers			
C306.3	Determine the vibrations using vibration instruments			
C306.4	Analyze the multi-degree freedom systems.			
<b>C307</b>	<b>Course Title</b>	<b>Aerodynamics Lab</b>		<b>2020-21 18AEL57</b>
C307.1	Understand different types of wind tunnel and calibrate the test section speed of the wind tunnel.			
C307.2	Illustrate the stream patterns over bluff and slender bodies.			
C307.3	Investigate the variation of surface pressure over bluff and slender bodies.			
C307.4	Predict the lift and drag co efficient over an airplane model.			
<b>C308</b>	<b>Course Title</b>	<b>Energy Conversion and Fluid Mechanics Lab</b>		<b>2020-21 18AEL58</b>
C308.1	Understand the basic physics of fluids			
C308.2	Demonstrate the ability to find the performance parameters / properties			
C308.3	Conduct the experiment and tabulate the readings			
C308.4	Interpret and conclude the result both orally and written			
<b>C311</b>	<b>Course Title</b>	<b>Aircraft Performance</b>		<b>2020-21 18AE61</b>
C311.1	Differentiate the aircraft performance in steady unaccelerated and accelerated flight.			
C311.2	Explain the aircraft maneuver performance.			
C311.3	Categorize the aircraft performance in steady accelerated and accelerated flight.			
C311.4	Apply the basic airplane performance parameters.			
<b>C312</b>	<b>Course Title</b>	<b>Aircraft Structures-II</b>		<b>2020-21 18AE62</b>

List of Course Outcome (CO) Statements for the Batch : 2018				
Graduation Period : 2018-to-2022		Scheme :	2018	No.of Courses : 61
COs	Description of Course Outcome statements			
C312.1	Apply the concepts of thin walled structures in bending and shear flow			
C312.2	Predict the failure of plate, Bolt and rivets			
C312.3	Identify the structural failures and its assessment procedures applicable to aircraft structures			
C312.4	Evaluate the stress in wings and fuselage frames.			
<b>C313</b>	<b>Course Title</b>	<b>Finite Element Methods</b>		<b>2020-21 18AE63</b>
C313.1	Apply discretization technique for domain decomposition			
C313.2	Derive the shape functions for various FE elements			
C313.3	Evaluate the effects of different loading and boundary conditions			
C313.4	Analyze the governing equations of finite element analysis			
<b>C314</b>	<b>Course Title</b>	<b>Gas Turbine Technology</b>		<b>2020-21 18AE644</b>
C314.1	Describe the various types and components of gas turbine engine			
C314.2	Discuss the materials and manufacturing technics used in gas turbine engine and their applications			
C314.3	Interpret the performance parameters of gas turbine engine			
C314.4	Analyze the gas turbine engine using different testing methods			
<b>C316</b>	<b>Course Title</b>	<b>Aircraft Propulsion Lab</b>		<b>2020-21 18AEL66</b>
C316.1	Understand the basic principle of aircraft propulsion and heat transfer.			
C316.2	Demonstrate the ability to measure the flame and behavior of flow through nozzle / ducts.			
C316.3	Conduct the experiment and tabulate the readings			
C316.4	Interpret and conclude the result both orally and written			
<b>C317</b>	<b>Course Title</b>	<b>Machine Shop Lab</b>		<b>2020-21 18AEL67</b>
C317.1	Understand and determine the young's modulus for materials using strain gauge and Extensometer and their deflections for various loading conditions.			
C317.2	Investigate the Maxwell's Reciprocal theorem and Principle of superposition using beams Under various load conditions.			
C317.3	Compare the theoretical and experimental results of beams and columns with various end Conditions.			
C317.4	Analyze and interpret the theoretical and experimental results for beams and columns..			
<b>C318</b>	<b>Course Title</b>	<b>Mini Project</b>		<b>2020-21 18AEMP68</b>
C318.1	Demonstrate an ability to identify and formulate a hypothesis for a chosen problem and to test through appropriate experiments			
C318.2	Apply relevant modern tools/techniques to solve the chosen problem.			
C318.3	Analyse/Infer/Evaluate the experimental results and propose suitable modifications to improve performance.			
C318.4	Work effectively as a member or a leader of a team.			
C318.5	Communicate effectively through written report and oral presentations.			
<b>C401</b>	<b>Course Title</b>	<b>Aircraft Stability &amp; Control</b>		<b>2020-21 18AE71</b>
C401.1	Understand the concept of aircraft static stability and the role of control system in longitudinal stability			

List of Course Outcome (CO) Statements for the Batch : 2018				
Graduation Period : 2018-to-2022		Scheme :	2018	No.of Courses : 61
COs	Description of Course Outcome statments			
C401.2	Illustrate the mathematical modeling of an aircraft in static longitudinal phase for both stick fixed and stick free conditions			
C401.3	Demonstrate the longitudinal and directional parameters with the help of the linearized equations of aircraft motion			
C401.4	Analyze the lateral and directional dynamics with the help of derivatives			
C402	Course Title	Computational Fluid Dynamics		2021-22 18AE72
C402.1	Understand the basic principles of computational fluid dynamics.			
C402.2	Develop the governing flow equations such as continuity, momentum and energy equations.			
C402.3	Compute the types of physical flow based on partial differential equations.			
C402.4	Utilize the methods of discretization to compute flow variables for various			
C406	Course Title	Modelling and Analysis lab		2021-22 18AEL76
C406.1	Understand the design drawings.			
C406.2	Design the component/parts effectively using the CAE tools			
C406.4	Interpret the concepts and results both orally and written			
C407	Course Title	Flight Simulation Laboratory		2021-22 18AEL77
C407.1	Write program to simulate concepts of flight mechanics (Control systems, aircraft performance, aircraft stability and control).			
C407.2	Simulate/Implement discrete computations on systems and verify its properties			
C407.3	Interpret the simulation result and plots both orally and written.			
C407.4	Gain experience in the application of MATLAB to real engineering designs.			
C408	Course Title	Project Work Phase - 1		2021-22 18AEP78
C408.1	Demonstrate an ability to identify and formulate a hypothesis for a chosen problem and to test through appropriate experiments.			
C408.2	Apply relevant modern tools/techniques to solve the chosen problem.			
C408.3	Analyse/Infer/Evaluate the experimental results and propose suitable modifications to improve performance.			
C408.4	Work effectively as a member or a leader of a team.			
C408.5	Communicate effectively through written report and oral presentations.			
C411	Course Title	Flight Vehicle Design		2021-22 18AE81
C411.1	Estimate the thrust loading and wing loading for the preliminary designing of the complete aircraft as per the given requirements			
C411.2	Interpret the configuration and loft design process of fuselage, wing and tail components			
C411.3	Compute the flight vehicle stability and performance.			
C411.4	Analyze the design aspects of all sub systems			
C412	Course Title	Avionics		2021-22 18AE821
C412.1	Understand the basic concepts of avionics systems in civil and military aircrafts			
C412.2	Interpret the working of various avionics system in an aircraft			
C412.3	Decribe the navigation systems.			
C412.4	Distinguish the avionics system architecture.			
C413	Course Title	Project Work Phase - 2		2021-22 18AEP83
C413.1	Demonstrate an ability to identify and formulate a hypothesis for a chosen problem and to test through appropriate experiments.			

List of Course Outcome (CO) Statements for the Batch : 2018				
Graduation Period : 2018-to-2022		Scheme :	2018	No.of Courses : 61
COs	Description of Course Outcome statments			
C413.2	Apply relevant modern tools/techniques to solve the chosen problem.			
C413.3	Analyse/Infer/Evaluate the experimental results and propose suitable modifications to improve performance.			
C413.4	Work effectively as a member or a leader of a team.			
C413.5	Communicate effectively through written report and oral presentations.			
<b>C414</b>	<b>Course Title</b>	<b>Technical seminar</b>		<b>2021-22 18AES84</b>
C414.1	Select recent advances in a specific technical field by performing a comprehensive literature survey.			
C414.2	Compare the different solution methods, various software tools and methods for the identified problem.			
C414.3	Discuss the advantages and disadvantages of approach, along with possible future directions.			
C414.4	Communicate technical content effectively through written and oral presentations.			
<b>C415</b>	<b>Course Title</b>	<b>Internship</b>		<b>2021-22 18AEI85</b>
C415.1	Demonstrate the sound knowledge in the chosen domain through skill up gradation.			
C415.2	Correlate the knowledge gained for different application scenarios.			
C415.3	work as individual or as good team player in an organisation.			
C415.4	Communicate technical content effectively through written and oral presentations.			
<b>C403</b>	<b>Course Title</b>	<b>Control Engineering</b>		<b>2021-22 18AE732</b>
C403.1	Understand the concepts of control systems			
C403.2	Develop mathematical models and governing equations for various physical models.			
C403.3	Intepret the block diagrams and signal flow graphs to compute transfer functions.			
C403.4	Analyze the response of system to various inputs through different types of plots.			
<b>C403</b>	<b>Course Title</b>	<b>Heat and Mass Transfer</b>		<b>2021-22 18AE734</b>
C403.1	Describe the fundamentals of heat and mass transfer.			
C403.2	Apply the principle of conduction to predict heat transfer coefficients			
C403.3	Apply the principle of Convection and Radiation to predict heat transfer coefficients			
C403.4	Analyze the problems due to heat transfer in several areas			
<b>C404</b>	<b>Course Title</b>	<b>Wind Tunnel Techniques</b>		<b>2021-22 18AE742</b>
C404.1	Understand the basic principles and procedures for model testing in the wind tunnel			
C404.2	Classify the various types of wind tunnels and its functions			
C404.3	Interpret the conventional measurement techniques and special wind tunnel techniques			
C404.4	Use the Special Wind Tunnel Techniques			
<b>C404</b>	<b>Course Title</b>	<b>Guidance Navigation &amp; Control</b>		<b>2021-22 18AE743</b>
C404.1	Understand the basic Navigation, Guidance & Control system concepts of aircraft and missile			
C404.2	Discuss about the types of Radar and Tracking systems.			
C404.3	Evaluate the performance parameters of GN&C systems.			
C404.4	Analyze the GN&C systems of aircrafts and missiles			



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Aeronautical Engineering

**Summary of Mapping of Course Outcome(CO)s to POs for the Batch: 2018**

<b>Graduation Period :</b>	2018-to-2022	<b>Scheme</b>	2018	<b>No.of Courses :</b>	61
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PO/PSOs	Programme Outcomes												PSOs						
	COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4		
<b>Course</b>	<b>ID</b>	<b>C101</b>	<b>Title</b>	<b>Calculus and Linear Algebra</b>										<b>CODE</b>	<b>18MAT11</b>				<b>2018-19</b>
C101.1	3	2											2						
C101.2	3	2											2						
C101.3	3	2											2						
<b>Total</b>	9	6											6						
<b>Course</b>	<b>ID</b>	<b>C102</b>	<b>Title</b>	<b>Engineering Chemistry</b>										<b>CODE</b>	<b>18CHE12</b>				<b>2018-19</b>
C102.1	2												1						
C102.2	2	1				1	1						1						
<b>Total</b>	4	1				1	1						2						
<b>Course</b>	<b>ID</b>	<b>C103</b>	<b>Title</b>	<b>C programming for Problem Solving</b>										<b>CODE</b>	<b>18CPS13</b>				<b>2018-19</b>
C101.1	2													1					
C101.2	2	2																	
C101.3	3														1				
C101.4	2	2													1				
C101.5	2														1				
<b>Total</b>	11	4												1	3				
<b>Course</b>	<b>ID</b>	<b>C104</b>	<b>Title</b>	<b>Basic Electronics</b>										<b>CODE</b>	<b>18ELN14</b>				<b>2018-19</b>
C104.1	3													3		1			
C104.2	3	2												2					
C104.3	3	2												3					
<b>Total</b>	9	4												8		1			
<b>Course</b>	<b>ID</b>	<b>C105</b>	<b>Title</b>	<b>Elements of Mechanical Engineering</b>										<b>CODE</b>	<b>18ME15</b>				<b>2018-19</b>
C105.1	3						1						1		2				
C105.2	3												1		2				
C105.3	1	3											1		2				
<b>Total</b>	7	3					1						3		6				
<b>Course</b>	<b>ID</b>	<b>C102</b>	<b>Title</b>	<b>Engineering Chemistry Laboratory</b>										<b>CODE</b>	<b>18CHE12</b>				<b>2018-19</b>
C102.1	2												1						
C102.2	2																		
C102.3	1	2				2	2												
<b>Total</b>	5	2				2	2						1						
<b>Course</b>	<b>ID</b>	<b>C107</b>	<b>Title</b>	<b>C Programming Laboratory</b>										<b>CODE</b>	<b>18CPL17</b>				<b>2018-19</b>
C107.1											1		1						
C107.2	2	2			1														
C107.3	2	2			1									3	2				
<b>Total</b>	4	4			2						1		1	3	2				
<b>Course</b>	<b>ID</b>	<b>C108</b>	<b>Title</b>	<b>Technical English-1</b>										<b>CODE</b>	<b>18EGH18</b>				<b>2018-19</b>
C108.1					1					2	1	3							

C108.2						1				2	1	3					
C108.3						1				2	1	3					
C108.4						1				2	1	3					
C108.5						1				2	1	3					
<b>Total</b>						5				10	5	15					
<b>Course</b>	<b>ID</b>	<b>C111</b>	<b>Title</b>	<b>Calculus and Linear Algebra</b>									<b>CODE</b>	<b>18MAT21</b>			<b>2018-19</b>
C111.1	3	2										2					
C111.2	3	2										2					
C111.3	3	2										2					
<b>Total</b>	9	6										6					
<b>Course</b>	<b>ID</b>	<b>C112</b>	<b>Title</b>	<b>Engineering Physics</b>									<b>CODE</b>	<b>18PHY12</b>			<b>2018-19</b>
C112.1	2											2					
C112.2	2																
C112.3		2															
<b>Total</b>	4	2										2					
<b>Course</b>	<b>ID</b>	<b>C101</b>	<b>Title</b>	<b>Basic Electrical Engg</b>									<b>CODE</b>	<b>18ELE31</b>			<b>2018-19</b>
C101.1	1	3										1	1				
C101.2	1											1	2				
C101.3	1	1				2						1	3				
C101.4	2	2										1	3				
<b>Total</b>	5	6				2						4	9				
<b>Course</b>	<b>ID</b>	<b>C112</b>	<b>Title</b>	<b>Elements of Civil Engineering and Mechanics</b>									<b>CODE</b>	<b>18CIV24</b>			<b>2018-19</b>
CO1	1	1										2		3			
CO2	3	2												3			
CO3	3	3												3			
<b>Total</b>	7	6										2		9			
<b>Course</b>	<b>ID</b>	<b>C115</b>	<b>Title</b>	<b>Engineering Graphics</b>									<b>CODE</b>	<b>18EGDL25</b>			<b>2018-19</b>
C115.1	1	2		2						1		2		1			
C115.2	1	2		2						1		2		2			
C115.3	1	2		2						1		2		2			
<b>Total</b>	3	6		6						3		6		5			
<b>Course</b>	<b>ID</b>	<b>C116</b>	<b>Title</b>	<b>Engineering Physics Lab</b>									<b>CODE</b>	<b>18PHYL16</b>			<b>2018-19</b>
C116.1	2																
C116.2		2															
C116.3												1					
<b>Total</b>	2	2										1					
<b>Course</b>	<b>ID</b>	<b>C107</b>	<b>Title</b>	<b>Basic Electrical Engineering Lab</b>									<b>CODE</b>	<b>18ELEL17</b>			<b>2018-19</b>
C107.1	1	1				1				2		1	1				
C107.2						1				2		1	1	2			
C107.3	2	2				1				2		1	1	2			
C107.4										2		1	1				
<b>Total</b>	3	3				3				8		4	4	4			
<b>Course</b>	<b>ID</b>	<b>C118</b>	<b>Title</b>	<b>Technical English-1</b>									<b>CODE</b>	<b>18EGH28</b>			<b>2018-19</b>
C118.1						1				2	1	3					
C118.2						1				2	1	3					
C118.3						1				2	1	3					
C118.4						1				2	1	3					
C118.5						1				2	1	3					
<b>Total</b>						5				10	5	15					

Course	ID	C201	Title	Tranform Calculus, Fourier Series & Numerical Techniques								CODE	18MAT31			2019-20
C201.1	3	2								3	1	1	1	1		
C201.2	3	2								3	1	1	1	1		
C201.3	3	2								3	1	1	1	1		
<b>Total</b>	9	6								9	3	3	3	3		
Course	ID	C202	Title	Aero Thermodynamics								CODE	18AE32			2019-20
C202.1	2	1								2	1		3			
C202.2	2	2								2	1		3			
C202.3	2	1								2	1		3			
C202.4	2	2								2	1		3			
<b>Total</b>	8	6								8	4		12			
Course	ID	C203	Title	Mechanics of Materials								CODE	18AE33			2019-20
C203.1	3	2	1							1	3		2			
C203.2	3	3	1							1	3		3			
C203.3	3	3	1							1	3		2			
C203.4	3	3	1							1	3		2			
<b>Total</b>	12	11	4							4	12		9			
Course	ID	C204	Title	Elements of Aeronautics								CODE	18AE34			2019-20
C204.1	2	2	2							2	2	1		1		
C204.2	2	2	2							2	2	1	1			
C204.3	2	2	2							2	2	2		1		
C204.4	2	2	2							2	2			2		
<b>Total</b>	8	8	8							8	8	4	1	4		
Course	ID	C205	Title	Fluid Mechanics								CODE	18AE35			2019-20
C205.1	3	2	1								2		2			
C205.2	3	2	1								2		2			
C205.3	3	2	2								2		3			
C205.4	3	2	2								2		3			
<b>Total</b>	12	8	6								8		10			
Course	ID	C206	Title	Measurment and Metrology								CODE	18AE36			2019-20
C206.1	3	2	2							2	3	2				
C206.2	3	2	1							2	3	2				
C206.3	3	2	2							2	2	2				
C206.4	3	3	2							2	2	3				
<b>Total</b>	12	9	7							8	10	9				
Course	ID	C207	Title	Measurements and Metrology Lab								CODE	18AEL37A			2019-20
C207.1	3	2	2							2	3	2				
C207.2	3	2	2							2	3	2				
C207.3	3	2	2							2	2	2				
C207.4	3	3	2							2	2	3				
<b>Total</b>	12	9	8							8	10	9				
Course	ID	C208	Title	Machineshop Lab								CODE	18AEL38			2019-20
C208.1	3	2	1	3							2	3	1		1	
C208.2	3	2	1	3							2	3	1		1	
C208.3	3	2	2	3							2	3	1		1	
C208.4	3	2	2	3							2	3	1		1	
<b>Total</b>	12	8	6	12							8	12	4		4	

<b>Course</b>	<b>ID</b>	<b>C211</b>	<b>Title</b>	<b>Complex Analysis, Probability and Sampling Distributions</b>							<b>CODE</b>	<b>18MAT41</b>			<b>2019-20</b>
C211.1	3	2								3	1	1	1	1	
C211.2	3	2								3	1	1	1	1	
C211.3	3	2								3	1	1	1	1	
<b>Total</b>	9	6								9	3	3	3	3	
<b>Course</b>	<b>ID</b>	<b>C212</b>	<b>Title</b>	<b>Aerodynamics - I</b>							<b>CODE</b>	<b>18AE42</b>			<b>2020-21</b>
C212.1	2	2	2									2	2		
C212.2	1	1	1									2	2		
C212.3	1	1	1									1	1		
C212.4	1	1	1									1	1		
<b>Total</b>	5	5	5									6	6		
<b>Course</b>	<b>ID</b>	<b>C213</b>	<b>Title</b>	<b>Aircraft Propulsion</b>							<b>CODE</b>	<b>18AE43</b>			<b>2019-20</b>
C213.1	2	1								2	2		2		
C213.2	2	1								2	2		1		
C213.3	2	2								2	2		1		
C213.4	2	2								2	2		2		
<b>Total</b>	8	6								8	8		6		
<b>Course</b>	<b>ID</b>	<b>C214</b>	<b>Title</b>	<b>Mechanisms and Machine Theory</b>							<b>CODE</b>	<b>18AE44</b>			<b>2019-20</b>
C214.1	3	3	2	2						2	3	2			
C214.2	3	3	2	2						2	3	2			
C214.3	3	2	2	2						2	2	2			
C214.4	3	3	2	2						2	2	2			
<b>Total</b>	12	11	8	8						8	10	8			
<b>Course</b>	<b>ID</b>	<b>C215</b>	<b>Title</b>	<b>Aircraft Material science</b>							<b>CODE</b>	<b>18AE45</b>			<b>2019-20</b>
C215.1	3	3	3							1	2	2			
C215.2	3	3	3							1	2	2			
C215.3	3	3	3							1	2	2			
C215.4	3	3	3							1	2	2			
<b>Total</b>	12	12	12							4	8	8			
<b>Course</b>	<b>ID</b>	<b>C216</b>	<b>Title</b>	<b>Turbomachines</b>							<b>CODE</b>	<b>18AE46</b>			<b>2019-20</b>
C216.1	3	3								2	2		2		
C216.2	3	3								2	2		2		
C216.3	3	3	3							2	2		3		
C216.4	3	3								2	2		2		
C217.1	2	1								3	3				
C217.2	2	1								3	3				
C217.3	2	1								3	3				
<b>Total</b>	6	3								9	9				
<b>Course</b>	<b>ID</b>	<b>C218</b>	<b>Title</b>	<b>Computer Aided Aircraft Drawing</b>							<b>CODE</b>	<b>18AEL48</b>			<b>2019-20</b>
C218.1	3	2	1		2						1	2	2		
C218.2	3	2	1		2						1	2	2		
C218.3	3	2	1		2						1	2	2		
C218.4	3	2	1	1	2						1	2	2		
<b>Total</b>	12	8	4	1	8					4	8	8			
<b>Course</b>	<b>ID</b>	<b>C301</b>	<b>Title</b>	<b>Management and Entrepreneurship</b>							<b>CODE</b>	<b>18AE51</b>			<b>2020-21</b>
C301.1											1	2	1	2	3
C301.2											1	2	1	2	3
C301.3											1	2	1	2	3

<b>C301.4</b>								1	2	1	2	3							
<b>Total</b>								4	8	4	8	12							
<b>Course</b>	<b>ID</b>	<b>C302</b>	<b>Title</b>	<b>Aerodynamics - II</b>									<b>CODE</b>	<b>18AE52</b>			<b>2020-21</b>		
<b>C302.1</b>	3	3	2	1								2	2		3				
<b>C302.2</b>	3	3	2	1								2	2		3				
<b>C302.3</b>	3	3	2	1								2	2		3				
<b>C302.4</b>	3	3	2	1								2	2		3				
<b>Total</b>	12	12	8	4								8	8		12				
<b>Course</b>	<b>ID</b>	<b>C303</b>	<b>Title</b>	<b>Aircraft Structures-I</b>									<b>CODE</b>	<b>18AE53</b>			<b>2020-21</b>		
<b>C303.1</b>	2											2	3	2		1			
<b>C303.2</b>	3											2	2	1					
<b>C303.3</b>	2											2	3						
<b>C303.4</b>	3	3	2									2	3	2					
<b>Total</b>	10	3	2									8	11	5		1			
<b>Course</b>	<b>ID</b>	<b>C304</b>	<b>Title</b>	<b>Introduction to Composites</b>									<b>CODE</b>	<b>18AE54</b>			<b>2020-21</b>		
<b>C304.1</b>	3	3	3	3								1	3		2				
<b>C304.2</b>	3	3	3	3								1	3		3				
<b>C304.3</b>	3	3	3	3								1	3		2				
<b>C304.4</b>	3	3	3	3								1	3		2				
<b>Total</b>	12	12	12	12								4	12		9				
<b>Course</b>	<b>ID</b>	<b>C305</b>	<b>Title</b>	<b>Aircraft System and Instrumentation</b>									<b>CODE</b>	<b>18AE55</b>			<b>2020-21</b>		
<b>C305.1</b>	1	2	1	1									2						
<b>C305.2</b>	1		2										3						
<b>C305.3</b>		1	2										2						
<b>C305.4</b>			1	2									2						
<b>Total</b>	2	3	6	3									9						
<b>Course</b>	<b>ID</b>	<b>C306</b>	<b>Title</b>	<b>Theory of Vibrations</b>									<b>CODE</b>	<b>18AE56</b>			<b>2020-21</b>		
<b>C306.1</b>	3	3	1							1		1	3	1		1			
<b>C306.2</b>	3	2	1							1		1	3	1		1			
<b>C306.3</b>	3	2	1							1		1	3	1		1			
<b>C306.4</b>	3	2	1							1		1	3	1		1			
<b>Total</b>	12	9	4							4		4	12	4		4			
<b>Course</b>	<b>ID</b>	<b>C307</b>	<b>Title</b>	<b>Aerodynamics Lab</b>									<b>CODE</b>	<b>18AEL57</b>			<b>2020-21</b>		
<b>C307.1</b>	2											2	2	2	2				
<b>C307.2</b>	2	2								1	2	2	2		2				
<b>C307.3</b>	2	2		2						2	2	1	2		2				
<b>C307.4</b>	2			2						2	2	1	2		2				
<b>Total</b>	8	4		4						4	5	6	4	8	2	8			
<b>Course</b>	<b>ID</b>	<b>C308</b>	<b>Title</b>	<b>Energy Conversion and Fluid Mechanics Lab</b>									<b>CODE</b>	<b>18AEL58</b>			<b>2020-21</b>		
<b>C308.1</b>	2											2	2	2		2			
<b>C308.2</b>	2	2								1	2	2	2		2				
<b>C308.3</b>	2	2		2						2	2	1			1	2			
<b>C308.4</b>	2			2						2	2	1			1	2			
<b>Total</b>	8	4		4						4	5	6	4	4	2	8			
<b>Course</b>	<b>ID</b>	<b>C311</b>	<b>Title</b>	<b>Aircraft Performance</b>									<b>CODE</b>	<b>18AE61</b>			<b>2020-21</b>		
<b>C311.1</b>	2	1										2	1						
<b>C311.2</b>	2	1										2			1				
<b>C311.3</b>	1	1										1	1						
<b>C311.4</b>	1	1										1			1				

<b>Total</b>	6	4									6	2	2			
<b>Course</b>	<b>ID</b>	<b>C312</b>	<b>Title</b>	<b>Aircraft Structures-II</b>								<b>CODE</b>	<b>18AE62</b>			<b>2020-21</b>
C312.1	2	3	1								1	3	2			
C312.2	2	2	2								1	3	3			
C312.3	2	3	2								1	3	2			
C312.4	2	3	2								1	3	2			
<b>Total</b>	8	11	7								4	12	9			
<b>Course</b>	<b>ID</b>	<b>C313</b>	<b>Title</b>	<b>Finite Element Methods</b>								<b>CODE</b>	<b>18AE63</b>			<b>2020-21</b>
C313.1	3	3	3								1	2	2			
C313.2	3	3	3								1	2	2			
C313.3	3	3	3								1	2	2			
C313.4	3	3	3								1	2	2			
<b>Total</b>	12	12	12								4	8	8			
<b>Course</b>	<b>ID</b>	<b>C314</b>	<b>Title</b>	<b>Gas Turbine Technology</b>								<b>CODE</b>	<b>18AE644</b>			<b>2020-21</b>
C314.1	2										2	2				
C314.2	2										2	2				
C314.3	1	2		1								2	2			
C314.4		2											2			
<b>Total</b>	5	4		1							4	6	2	2		
<b>Course</b>	<b>ID</b>	<b>C316</b>	<b>Title</b>	<b>Aircraft Propulsion Lab</b>								<b>CODE</b>	<b>18AEL66</b>			<b>2020-21</b>
C316.1	2										2	2	2			
C316.2	2	2				2					2	2	2			
C316.3	2	2		2		2					2	2	2			
C316.4	2			2		2					2	2	2			
<b>Total</b>	8	4		4		6					6	8	8			
<b>Course</b>	<b>ID</b>	<b>C317</b>	<b>Title</b>	<b>Machine Shop Lab</b>								<b>CODE</b>	<b>18AEL67</b>			<b>2020-21</b>
C317.1	3	2	2	3							1	2				
C317.2	3	2	2	3							1	2				
C317.3	3	2	2	3							1	2				
C317.4	3	2	2	3							1	2				
<b>Total</b>	12	8	8	12							4	8				
<b>Course</b>	<b>ID</b>	<b>C318</b>	<b>Title</b>	<b>Mini Project</b>								<b>CODE</b>	<b>18AEMP68</b>			<b>2020-21</b>
C318.1	3	3	3	3	3			2	2	2	2	2				
C318.2	3	3	3	3	3			2	2	2	2	2				
C318.3	3	3	3	3	3			2	2	2	2	2				
C318.4	3	3	3	3	3			2	2	2	2	2				
C318.5	3	3	3	3	3			2	2	2	2	2				
<b>Total</b>	15	15	15	15	15			10	10	10	10	10				
<b>Course</b>	<b>ID</b>	<b>C401</b>	<b>Title</b>	<b>Aircraft Stability and Control</b>								<b>CODE</b>	<b>18AE71</b>			<b>2021-22</b>
C401.1	2											1	1	3		
C401.2	2	1	2	2								1	2			
C401.3	2	1		2								1	1	3		
C401.4	2	1	2	2								1	1	3		
<b>Total</b>	8	3	4	6								4	2	3	9	
<b>Course</b>	<b>ID</b>	<b>C402</b>	<b>Title</b>	<b>Computational Fluid Dynamics</b>								<b>CODE</b>	<b>18AE72</b>			<b>2021-22</b>
C402.1	3	2	2	1								1	1	2		
C402.2	3	2	2	1								2	1	2		
C402.3	3	2	2	1								2	1	2		
C402.4	3	2	2	1								2	1	2		

<b>Total</b>	12	8	8	4								7	4		8			
<b>Course</b>	<b>ID</b>	<b>C406</b>	<b>Title</b>	<b>Modelling and Analysis lab</b>									<b>CODE</b>	<b>18AEL76</b>				<b>2021-22</b>
C406.1	3	3	1	2	3							2	3	2				
C406.2	3	3	2	2	3							2	3	3				
C406.3	3	3	2	2	3							2	3	3				
C406.4	3	3	2	2	3							2	3	2				
<b>Total</b>	12	12	7	8	12							8	12	10				
<b>Course</b>	<b>ID</b>	<b>C407</b>	<b>Title</b>	<b>Flight Simulation Laboratory</b>									<b>CODE</b>	<b>18AEL77</b>				<b>2021-22</b>
C407.1	3	2	2		2							2					3	
C407.2	3	2	2		2							2					3	
C407.3	3	2	2		2							2					3	
C407.4	3	2	2		2							2					3	
<b>Total</b>	12	8	8		8							8					12	
<b>Course</b>	<b>ID</b>	<b>C408</b>	<b>Title</b>	<b>Project Work Phase - 1</b>									<b>CODE</b>	<b>18AEP78</b>				<b>2021-22</b>
C408.1	2	2	2		2	2	2	2	2			2	2	2	2	2		
C408.2	2	2	2	2	2	2	2	2	2			2	2	2	2	2		
C408.3	2	2	2	2	2	2	2	2	2			2	2	2	2	2		
C408.4								2	2	2	2	2	2	2	2	2		
C408.5								2	2	2	2	2	2	2	2	2		
<b>Total</b>	6	6	6	4	6	6	6	10	10	4	4	10	10	10	10	10		
<b>Course</b>	<b>ID</b>	<b>C411</b>	<b>Title</b>	<b>Flight Vehicle Design</b>									<b>CODE</b>	<b>18AE81</b>				<b>2021-22</b>
C411.1	1	2	3		3	2			3				1	3	1	1		
C411.2	1	2	3		2	2			2				1	3	1	1		
C411.3	1	1	2		2	2			2				1	2	1	2		
C411.4	1	2	3		3	2			2				1	3	2	1		
<b>Total</b>	4	7	11		10	8			9				4	11	5	5		
<b>Course</b>	<b>ID</b>	<b>C412</b>	<b>Title</b>	<b>Avionics</b>									<b>CODE</b>	<b>18AE821</b>				<b>2021-22</b>
C412.1	2											2					3	
C412.2	2											2					3	
C412.3	2											2					3	
C412.4	2											2					3	
<b>Total</b>	8											8					12	
<b>Course</b>	<b>ID</b>	<b>C413</b>	<b>Title</b>	<b>Project Work Phase - 2</b>									<b>CODE</b>	<b>18AEP83</b>				<b>2021-22</b>
C413.1	2												2	2	2	2		
C413.2	2	2	2	2	2				2			2	2	2	2	2		
C413.3	2	2	2	2	2	2	2	2	2			2	2	2	2	2		
C413.4								2	2	2	2	2	2	2	2	2		
C413.5								2	2	2	2	2	2	2	2	2		
<b>Total</b>	6	4	4	4	4	2	2	6	8	4	4	8	10	10	10	10		
C414.1	3	2	1	1	1								3	3	3	3		
C414.2	3	2	1	2	3								3	3	3	3		
C414.3	3	1	1	1									3	3	3	3		
C414.4	3							1		3		1						
<b>Total</b>	12	5	3	4	4			1		3		1	9	9	9	9		
<b>Course</b>	<b>ID</b>	<b>C415</b>	<b>Title</b>	<b>Internship</b>									<b>CODE</b>	<b>18AEI85</b>				<b>2021-22</b>
C415.1	2	2	1		2	2					2	2	2	2	2	2		
C415.2	2	2	1		2	2					2	2	2	2	2	2		
C415.3	2	2	1					2					2	2	2	2		
C415.4					2		2		2	2	2	2	2	2	2	2		
<b>Total</b>	6	6	3		4	6		2	2	2	6	6	8	8	8	8		

Course	ID	C403	Title	Control Engineering								CODE	18AE732	2021-22	
C403.1	2		1								2		1	3	
C403.2	2	2	2								2		1	3	
C403.3	2	2	2								2		1	3	
C403.4	2	2	2								2		1	3	
<b>Total</b>	<b>8</b>	<b>6</b>	<b>7</b>								<b>8</b>		<b>4</b>	<b>12</b>	
Course	ID	C403	Title	Heat and Mass Transfer								CODE	18AE734	2021-22	
C403.1	2										2	2	2		
C403.2	2										2	2	2		
C403.3	2		1								1	2	2		
C403.4	2	2									1	2	2		
<b>Total</b>	<b>8</b>	<b>2</b>	<b>1</b>								<b>6</b>	<b>8</b>	<b>8</b>		
Course	ID	C404	Title	Wind Tunnel Techniques								CODE	18AE742	2021-22	
C404.1	3	2	2								2	3	2		
C404.2	3	2	2								2	2	3		
C404.3	2	3	2								2	2	3		
C404.4	3	2	2								2	2	3		
<b>Total</b>	<b>11</b>	<b>9</b>	<b>8</b>								<b>8</b>	<b>9</b>	<b>11</b>		
Course	ID	C404	Title	Guidance Navigation & Control								CODE	18AE743	2021-22	
C404.1	3	2									2			3	
C404.2	3	2									2			3	
C404.3	3	2	2								2			3	
C404.4	3	2	2	2							2			3	
<b>Total</b>	<b>12</b>	<b>8</b>	<b>4</b>	<b>2</b>							<b>8</b>			<b>12</b>	

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Department of Aeronautical Engineering

**Summary of Average Mapping of COs to POs, for the Batch: 2018**


Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses										61
CID	Title of Course	Programme Outcome(PO)s												
		1	2	3	4	5	6	7	8	9	10	11	12	
C101	Calculus and Linear Algebra	3	2										2	
C102	Engineering Chemistry	2	1				1	1					1	
C101	C programming for Problem Solving	3	1											
C104	Basic Electronics	3	2											
C105	Elements of Mechanical Engineering	3	1					1					1	
C102	Engineering Chemistry Laboratory	2	1				1	1					1	
C107	C Programming Laboratory	2	2			1					1		1	
C108	Technical English-1						1				2	1	3	
C111	Calculus and Linear Algebra	3	2										2	
C112	Engineering Physics	2	1										1	
C101	Basic Electrical Engg	2	2				1						1	
C112	Elements of Civil Engineering and Mechanics	3	2										1	
C115	Engineering Graphics	1	2			2					1		2	
C116	Engineering Physics Lab	1	1										1	
C107	Basic Electrical Engineering Lab	1	1				1				2		1	
C118	Technical English-2						1				2	1	3	
C201	Tranform Calculus, Fourier Series & Numerical Techniques	3	2										3	
C202	Aero Thermodynamics	2	2										2	
C203	Mechanics of Materials	3	3	1									1	
C204	Elements of Aeronautics	2	2	2									2	
C205	Fluid Mechanics	3	2	2										
C206	Measurment and Metrology	3	3	2									2	
C207	Measurements and Metrology Lab	3	3	2									2	
C208	Machineshop Lab	3	2	2	3								2	
C211	Complex Analysis, Probability and Sampling Distributions	3	2										3	
C212	Aerodynamics - I	2	2	2										
C213	Aircraft Propulsion	2	2										2	
C214	Mechanisms and Machine Theory	3	3	2	2								2	
C215	Aircraft Material science	3	3	3									1	
C216	Turbomachines	3	3	1									2	
C217	Material Testing Lab	2	1										3	
C218	Computer Aided Aircraft Drawing	3	2	1	1	2							1	
C301	Management and Entrepreneurship								1	2	1	2	3	
C302	Aerodynamics - II	3	3	2	1								2	
C303	Aircraft Structures-I	3	1	1									2	


Summary of Average Mapping of COs to POs, for the Batch: 2018													
Graduation Period: 2018-to-2022		Scheme		2018		No.of Courses		61					
CID	Title of Course	Programme Outcome(PO)s											
		1	2	3	4	5	6	7	8	9	10	11	12
C304	Introduction to Composites	3	3	3	3								1
C305	Aircraft System and Instrumentation	1	1	2	1								
C306	Theory of Vibrations	3	3	1							1		1
C307	Aerodynamics Lab	2	1		1					1	2	2	1
C308	Energy Conversion and Fluid Mechanics Lab	2	1		1					1	2	2	1
C311	Aircraft Performace	2	1										2
C312	Aircraft Structures-II	2	3	2									1
C313	Finite Element Methods	3	3	3									1
C314	Gas Turbine Technology	2	1		1								1
C316	Aircraft Propulsion Lab	2	1		1					2			2
C317	Machine Shop Lab	3	2	2	3								1
C318	Mini Project	3	3	3	3	3				2	2	2	2
C401	Aircraft Stability and Control	2	1	1	2								
C402	Computational Fluid Dynamics	3	2	2	1								2
C406	Modelling and Analysis lab	3	3	2	2	3							2
C407	Flight Simulation Laboratory	3	2	2		2							2
C408	Project Work Phase - 1	2	2	2	1	2	2	2	2	2	1	1	2
C411	Flight Vehicle Design	1	2	3		3	2			3			
C412	Avionics	2											2
C413	Project Work Phase - 2	2	1	1	1	1	1	1	2	2	1	1	2
C414	Technical seminar	3	2	1	1	1			1		1		1
C415	Internship	2	2	1		1	2		1	1	1	2	2
C403	Control Engineering	2	2	2									2
C403	Heat and Mass Transfer	2	1		1								2
C404	Wind Tunnel Techniques	3	3		2								2
C404	Guidance Navigation & Control	3	2	1	1								2
<b>Total PO Mapping</b>		141	110	57	33	21	13	6	7	16	20	14	93
<b>Average PO Mapping in Scale of 3</b>		2.3	1.8	1	1	0	0	0	0	0	0	0	2
<b>Average PO Mapping in %</b>		77	60	31	18	12	7	3	4	9	11	8	51

  
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Summary of Average Mapping of COs to PSOs, for the Batch: 2018					
Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses	61
CID	Title of Course	PSOs			
		1	2	3	4
C311	Aircraft Performace	1		1	
C312	Aircraft Structures-II	3		3	
C313	Finite Element Methods	2	2		
C314	Gas Turbine Technology	2	1	1	
C316	Aircraft Propulsion Lab	2		2	
C317	Machine Shop Lab	2			
C318	Mini Project	2			
C401	Aircraft Stability and Control	1	1	1	3
C402	Computational Fluid Dynamics	1		2	
C406	Modelling and Analysis lab	3	3		
C407	Flight Simulation Laboratory				3
C408	Project Work Phase - 1	2	2	2	2
C411	Flight Vehicle Design	1	3	2	2
C412	Avionics				3
C413	Project Work Phase - 2	2	2	2	2
C414	Technical seminar	3	3	3	3
C415	Internship	2	2	2	2
C403	Control Engineering		1		3
C403	Heat and Mass Transfer	2		2	
C404	Wind Tunnel Techniques	3	3		
C404	Guidance Navigation & Control				3
<b>Total Mapping</b>		93	53	56	32
<b>Average Mapping in Scale of 3</b>		2	1	1	1
<b>Average Mapping in %</b>		51	29	31	18

  
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**Summary of Direct Attainment(CIE and SEE) of Programme Outcomes for the Batch : 2018**

Graduation Period: 2018-to-2022

Scheme 2018

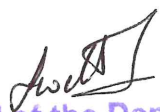
No.of Courses


61

**Direct Attainment of Programme Outcomes**

CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C101	Calculus and Linear Algebra	2	2										1.83
C102	Engineering Chemistry	2	2				2	2					2.2
C101	C programming for Problem Solving	1	1										
C104	Basic Electronics	2	2										
C105	Elements of Mechanical Engineering	2	2					2					2
C106	Engineering Chemistry Laboratory	3	3				3	3					2.8
C107	C Programming Laboratory	3	3			3					3		3
C108	Technical English-1						2				2		1.56
C111	Calculus and Linear Algebra	2	2										1.58
C112	Engineering Physics	2	2										2.23
C101	Basic Electrical Engg	3	3				3						2.55
C112	Elements of Civil Engineering and Mechanics	1	1										1.04
C115	Engineering Graphics	2	2			2					2		2.37
C116	Engineering Physics Lab	3	3										2.79
C107	Basic Electrical Engineering Lab	3	3				3				3		2.95
C118	Technical English-2						2				2	2	1.66
C201	Tranform Calculus, Fourier Series & Numerical Techniques	2	2										1.83
C202	Aero Thermodynamics	1	1										1.3
C203	Mechanics of Materials	2	2	2									1.87
C204	Elements of Aeronautics	2	2	2									1.65
C205	Fluid Mechanics	2	2	2									
C206	Measurment and Metrology	2	2										2.1
C207	Measurements and Metrology Lab	3	3	3									2.82
C208	Machineshop Lab	3	3	3	3								2.65
C211	Complex Analysis, Probability and Sampling Distributions	3	3										3
C212	Aerodynamics - I	3	3	3									
C213	Aircraft Propulsion	3	3										2.83
C214	Mechanisms and Machine Theory	3	3	3	3								2.75
C215	Aircraft Material science	3	3	3									2.95
C216	Turbomachines	3	3	3									3
C217	Material Testing Lab	3	3										3
C218	Computer Aided Aircraft Drawing	3	3	3	3	3							2.93
C301	Management and Entrepreneurship								2	2	2	2	2.45
C302	Aerodynamics - II	2	2	2	2								2.03
C303	Aircraft Structures-I	2	2	2									2
C304	Introduction to Composites	2	2	2	2								2.37
C305	Aircraft System and Instrumentation	2	2	2	2								
C306	Theory of Vibrations	2	2	2							2		2.03
C307	Aerodynamics Lab	3	3		3					3	3	3	3

Summary of Direct Attainment(CIE and SEE) of Programme Outcomes for the Batch : 2018													
Graduation Period: 2018-to-2022					Scheme	2018	No.of Courses					61	
Direct Attainment of Programme Outcomes													
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C308	Energy Conversion and Fluid Mechanics Lab	3	3		3					3	3	3	3
C311	Aircraft Performace	3	3										3
C312	Aircraft Structures-II	3	3	2									2.53
C313	Finite Element Methods	3	3	3									3
C314	Gas Turbine Technology	3	3		3								3
C316	Aircraft Propulsion Lab	3	3		3					3			3
C317	Machine Shop Lab	3	3	3	3								3
C318	Mini Project	3	3	3	3	3				3	3	3	3
C401	Aircraft Stability and Control	2	2	2	2								
C402	Computational Fluid Dynamics	2	2	2	2								1.46
C406	Modelling and Analysis lab	3	3	3	3	3							2.79
C407	Flight Simulation Laboratory	3	3	3		3							3
C408	Project Work Phase - 1	3	3	3	3	3	3	3	3	3	3	3	2.88
C411	Flight Vehicle Design	2	2	2		2	2			2			
C412	Avionics	2											2.33
C413	Project Work Phase - 2	3	3	3	3	3	3	3	2	2	1	1	2.23
C414	Technical seminar	3	3	3	3	3			3		3		2.9
C415	Internship	3	3	3		3	3		3	3	3	3	2.91
C403	Control Engineering	2	2	2									2.02
C403	Heat and Mass Transfer	2	2		2								2.29
C404	Wind Tunnel Techniques	3	3		3								2.73
C404	Guidance Navigation & Control	2	2	2	2								2.23
Average Direct PO Attainment		2	2	1	1	1	0	0	0	0	1	0	2.2
(Scale : 0-3) and (%)		78	76	41	30	17	13	7	7	14	19	11	72.4

  
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Department of Aeronautical Engineering

**Summary of In-Direct Attainment(CES) of Programme Outcomes for the Batch : 2018**

Graduation Period: 2018-to-2022

Scheme 2018


No.of Courses


61

**In-Direct Attainment of Programme Outcomes**

CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C101	Calculus and Linear Algebra	2	2										2
C102	Engineering Chemistry	2	2				2	2					2
C101	C programming for Problem Solving	1	1										
C104	Basic Electronics	2	2										
C105	Elements of Mechanical Engineering	2	2					2					2
C106	Engineering Chemistry Laboratory	2	2				2	2					2
C107	C Programming Laboratory	2	2			2					1		1
C108	Technical English-1												
C111	Calculus and Linear Algebra	1	1										1
C112	Engineering Physics	2	1										2
C101	Basic Electrical Engg	3	3				3						3
C112	Elements of Civil Engineering and Mechanics	3	3										3
C115	Engineering Graphics	2	2			2					2		2
C116	Engineering Physics Lab	1	2										2
C107	Basic Electrical Engineering Lab	2	2				3				2		2
C118	Technical English-2												
C201	Tranform Calculus, Fourier Series & Numerical Techniques	2	2										2
C202	Aero Thermodynamics	2	2										2
C203	Mechanics of Materials	3	2	3									3
C204	Elements of Aeronautics	2	2	2									2
C205	Fluid Mechanics	1	1	1									
C206	Measurment and Metrology	2	2										2
C207	Measurements and Metrology Lab	2	2	2									2
C208	Machineshop Lab	2	2	2	2								2
C211	Complex Analysis, Probability and Sampling Distributions	2	2										2
C212	Aerodynamics - I	2	2	2									
C213	Aircraft Propulsion	2	2										2
C214	Mechanisms and Machine Theory	2	2	2	2								2
C215	Aircraft Material science	3	3	3									3
C216	Turbomachines	1	1	1									1
C217	Material Testing Lab	2	2										2
C218	Computer Aided Aircraft Drawing	2	2	2	2	2							2
C301	Management and Entrepreneurship								3	3	3	3	3
C302	Aerodynamics - II	1	1	1	1								1
C303	Aircraft Structures-I	2	2	2									2
C304	Introduction to Composites	3	3	3	3								3
C305	Aircraft System and Instrumentation	1	1	1	1								

Summary of In-Direct Attainment(CES) of Programme Outcomes for the Batch : 2018													
Graduation Period: 2018-to-2022					Scheme	2018	No.of Courses					61	
In-Direct Attainment of Programme Outcomes													
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C306	Theory of Vibrations	1	1	1							1		1
C307	Aerodynamics Lab	2	2		2					2	2	2	2
C308	Energy Conversion and Fluid Mechanics Lab	2	2		2					2	2	2	2
C311	Aircraft Performace	1	1										1
C312	Aircraft Structures-II	2	2	2									2
C313	Finite Element Methods	3	3	3									3
C314	Gas Turbine Technology	2	2		2								2
C316	Aircraft Propulsion Lab	2	2		2					2			2
C317	Machine Shop Lab	3	3	3	3								3
C318	Mini Project	3	3	3	3	3				3	3	3	3
C401	Aircraft Stability and Control	0	0	0	0								
C402	Computational Fluid Dynamics	1	1	1	1								1
C406	Modelling and Analysis lab	1	1	1	1	1							1
C407	Flight Simulation Laboratory	1	1	1		1							1
C408	Project Work Phase - 1												
C411	Flight Vehicle Design	1	1	1		1	1			1			
C412	Avionics	2											2
C413	Project Work Phase - 2	2	2	2	2	2	2	2	1	2	1	1	2
C414	Technical seminar	2	1	2	2	1			1		1		1
C415	Internship	2	2	2		2	2		3	2	3	2	2
C403	Control Engineering	2	2	2									2
C403	Heat and Mass Transfer	2	2		3								3
C404	Wind Tunnel Techniques	2	2		2								2
C404	Guidance Navigation & Control	2	2	2	2								2
Average In-Direct PO Attainment (Scale : 0-3) and ( % )		2	2	1	1	0	0	0	0	0	0	0	2
		58	56	29	20	9	8	4	4	8	11	7	54

  
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Department of Aeronautical Engineering

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2018**

**Graduation Period: 2018-to-2022**

**Scheme 2018**

**No.of Courses**


**61**

**Total Attainment of Programme Outcomes**

CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C101	Calculus and Linear Algebra	2	2										1.89
C102	Engineering Chemistry	2	2				2	2					2.15
C101	C programming for Problem Solving	1	1										
C104	Basic Electronics	2	2										
C105	Elements of Mechanical Engineering	2	2					2					1.93
C106	Engineering Chemistry Laboratory	3	2				2	2					2.64
C107	C Programming Laboratory	3	3			3					3		2.68
C108	Technical English-1						1				1		1.25
C111	Calculus and Linear Algebra	2	2										1.5
C112	Engineering Physics	2	2										2.08
C101	Basic Electrical Engg	3	3				3						2.62
C112	Elements of Civil Engineering and Mechanics	1	1										1.35
C115	Engineering Graphics	2	2			2					2		2.22
C116	Engineering Physics Lab	2	3										2.57
C107	Basic Electrical Engineering Lab	3	3				3				3		2.85
C118	Technical English-2						1				1	1	1.33
C201	Tranform Calculus, Fourier Series & Numerical Techniques	2	2										1.84
C202	Aero Thermodynamics	1	1										1.39
C203	Mechanics of Materials	2	2	2									2
C204	Elements of Aeronautics	2	2	2									1.71
C205	Fluid Mechanics	2	2	2									
C206	Measurment and Metrology	2	2										2.03
C207	Measurements and Metrology Lab	3	3	3									2.57
C208	Machineshop Lab	3	3	2	3								2.54
C211	Complex Analysis, Probability and Sampling Distributions	3	3										2.81
C212	Aerodynamics - I	3	3	3									
C213	Aircraft Propulsion	3	3										2.68
C214	Mechanisms and Machine Theory	3	3	3	3								2.67
C215	Aircraft Material science	3	3	3									2.86
C216	Turbomachines	3	3	3									2.59
C217	Material Testing Lab	3	3										2.79
C218	Computer Aided Aircraft Drawing	3	3	3	3	3							2.74
C301	Management and Entrepreneurship								2	2	2	2	2.47
C302	Aerodynamics - II	2	2	2	2								1.87
C303	Aircraft Structures-I	2	2	2									2.04
C304	Introduction to Composites	2	2	2	2								2.48
C305	Aircraft System and Instrumentation	2	2	2	2								
C306	Theory of Vibrations	2	2	2							2		1.89
C307	Aerodynamics Lab	3	3		3					3	3	3	2.8

Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2018													
Graduation Period: 2018-to-2022				Scheme	2018	No.of Courses						61	
Total Attainment of Programme Outcomes													
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C308	Energy Conversion and Fluid Mechanics Lab	3	3		3					3	3	3	2.81
C311	Aircraft Performace	3	3										2.69
C312	Aircraft Structures-II	2	2	2									2.46
C313	Finite Element Methods	3	3	3									2.9
C314	Gas Turbine Technology	3	3		3								2.84
C316	Aircraft Propulsion Lab	3	3		3					3			2.82
C317	Machine Shop Lab	3	3	3	3								2.91
C318	Mini Project	3	3	3	3	3				3	3	3	2.92
C401	Aircraft Stability and Control	1	1	1	1								
C402	Computational Fluid Dynamics	1	1	1	1								1.43
C406	Modelling and Analysis lab	3	3	2	3	3							2.5
C407	Flight Simulation Laboratory	3	3	3		3							2.63
C408	Project Work Phase - 1	2	2	2	2	2	2	2	2	2	2	2	2.3
C411	Flight Vehicle Design	2	2	2		2	2			2			
C412	Avionics	2											2.29
C413	Project Work Phase - 2	3	3	3	3	3	3	3	2	2	1	1	2.08
C414	Technical seminar	3	3	3	3	3			3		3		2.58
C415	Internship	3	3	3		3	3		3	3	3	3	2.79
C403	Control Engineering	2	2	2									2.08
C403	Heat and Mass Transfer	2	2		2								2.34
C404	Wind Tunnel Techniques	3	3		3								2.55
C404	Guidance Navigation & Control	2	2	2	2								2.1
Average Total PO Attainment (Scale : 0-3) and ( % )		2	2	1	1	1	0	0	0	0	1	0	2.1
		74	72	38	28	15	12	6	7	13	18	10	68.8

  
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**Summary of Direct Attainment(CIE and SEE) of PSOs for the Batch : 2018**


Graduation Period: 2018-to-2022	Scheme	2018	No.of Courses	61
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**Direct Attainment of Programme Specific Outcomes**

CID	Title of Course	1	2	3	4
C101	Calculus and Linear Algebra				
C102	Engineering Chemistry				
C101	C programming for Problem Solving	2	1		
C104	Basic Electronics	2		2	
C105	Elements of Mechanical Engineering		2		
C106	Engineering Chemistry Laboratory				
C107	C Programming Laboratory	3	3		
C108	Technical English-1				
C111	Calculus and Linear Algebra				
C112	Engineering Physics				
C101	Basic Electrical Engg	3			
C112	Elements of Civil Engineering and Mechanics		1		
C115	Engineering Graphics			2	
C116	Engineering Physics Lab				
C107	Basic Electrical Engineering Lab	3		3	
C118	Technical English-2				
C201	Tranform Calculus, Fourier Series & Numerical Techniques	2	2	2	2
C202	Aero Thermodynamics	1		1	
C203	Mechanics of Materials	2		2	
C204	Elements of Aeronautics	2	2	2	2
C205	Fluid Mechanics	2		2	
C206	Measurment and Metrology	2		2	
C207	Measurements and Metrology Lab	3	3		
C208	Machineshop Lab	3	3		3
C211	Complex Analysis, Probability and Sampling Distributions	3	3	3	3
C212	Aerodynamics - I		3	3	
C213	Aircraft Propulsion	3		3	
C214	Mechanisms and Machine Theory	3	3		
C215	Aircraft Material science	3	3		
C216	Turbomachines	3		3	
C217	Material Testing Lab	3			
C218	Computer Aided Aircraft Drawing	3	3		
C301	Management and Entrepreneurship				
C302	Aerodynamics - II	2		2	
C303	Aircraft Structures-I	2	2		2
C304	Introduction to Composites	2		2	
C305	Aircraft System and Instrumentation	2			
C306	Theory of Vibrations	2	2		2

Summary of Direct Attainment(CIE and SEE) of PSOs for the Batch : 2018						
Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses	61	
Direct Attainment of Programme Specific Outcomes						
CID	Title of Course	1	2	3	4	
C307	Aerodynamics Lab	3	3	3		
C308	Energy Conversion and Fluid Mechanics Lab	3	3	3		
C311	Aircraft Performace	3		3		
C312	Aircraft Structures-II	3		3		
C313	Finite Element Methods	3	3			
C314	Gas Turbine Technology	3	3	3		
C316	Aircraft Propulsion Lab	3		3		
C317	Machine Shop Lab	3				
C318	Mini Project	3				
C401	Aircraft Stability and Control	2	2	2	2	
C402	Computational Fluid Dynamics	2		2		
C406	Modelling and Analysis lab	3	3			
C407	Flight Simulation Laboratory				3	
C408	Project Work Phase - 1	3	3	3	3	
C411	Flight Vehicle Design	2	2	2	2	
C412	Avionics				2	
C413	Project Work Phase - 2	2	2	2	2	
C414	Technical seminar	3	3	3	3	
C415	Internship	3	3	3	3	
C403	Control Engineering		2		2	
C403	Heat and Mass Transfer	2		2		
C404	Wind Tunnel Techniques	3	3			
C404	Guidance Navigation & Control				2	
Average Direct PSO Attainment		(Scale: 0-3)	2	1	1	1
		(%)	60	38	39	21

  
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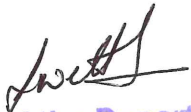
**Summary of In-Direct Attainment(CES) of PSOs for the Batch : 2018**


<b>Graduation Period: 2018-to-2022</b>	<b>Scheme</b>	<b>2018</b>	<b>No.of Courses</b>	<b>61</b>
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**In Direct Attainment of Programme Specific Outcomes**

CID	Title of Course	1	2	3	4
C101	Calculus and Linear Algebra				
C102	Engineering Chemistry				
C101	C programming for Problem Solving	1	1		
C104	Basic Electronics	2		2	
C105	Elements of Mechanical Engineering		2		
C106	Engineering Chemistry Laboratory				
C107	C Programming Laboratory	2	2		
C108	Technical English-1				
C111	Calculus and Linear Algebra				
C112	Engineering Physics				
C101	Basic Electrical Engg	3			
C112	Elements of Civil Engineering and Mechanics		3		
C115	Engineering Graphics			2	
C116	Engineering Physics Lab				
C107	Basic Electrical Engineering Lab	2		2	
C118	Technical English-2				
C201	Tranform Calculus, Fourier Series & Numerical Techniques	2	2	2	2
C202	Aero Thermodynamics	2		2	
C203	Mechanics of Materials	3		3	
C204	Elements of Aeronautics	2	2	2	2
C205	Fluid Mechanics	1		1	
C206	Measurment and Metrology	2		2	
C207	Measurements and Metrology Lab	2	2		
C208	Machineshop Lab	2	2		2
C211	Complex Analysis, Probability and Sampling Distributions	2	2	2	2
C212	Aerodynamics - I		2	2	
C213	Aircraft Propulsion	2		2	
C214	Mechanisms and Machine Theory	2	2		
C215	Aircraft Material science	3	3		
C216	Turbomachines	1		1	
C217	Material Testing Lab	2			
C218	Computer Aided Aircraft Drawing	2	2		
C301	Management and Entrepreneurship				
C302	Aerodynamics - II	1		1	
C303	Aircraft Structures-I	2	2		3
C304	Introduction to Composites	3		3	
C305	Aircraft System and Instrumentation	1			
C306	Theory of Vibrations	1	1		1
C307	Aerodynamics Lab	2	2	2	
C308	Energy Conversion and Fluid Mechanics Lab	2	2	2	

Summary of In-Direct Attainment(CES) of PSOs for the Batch : 2018						
Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses	61	
In Direct Attainment of Programme Specific Outcomes						
CID	Title of Course	1	2	3	4	
C311	Aircraft Performace	2		1		
C312	Aircraft Structures-II	2		2		
C313	Finite Element Methods	3	3			
C314	Gas Turbine Technology	2	2	2		
C316	Aircraft Propulsion Lab	2		2		
C317	Machine Shop Lab	3				
C318	Mini Project	3				
C401	Aircraft Stability and Control	0	0	0	0	
C402	Computational Fluid Dynamics	1		1		
C406	Modelling and Analysis lab	1	1			
C407	Flight Simulation Laboratory				1	
C408	Project Work Phase - 1					
C411	Flight Vehicle Design	1	1	1	1	
C412	Avionics				2	
C413	Project Work Phase - 2	2	2	2	2	
C414	Technical seminar	2	2	2	2	
C415	Internship	2	2	2	2	
C403	Control Engineering		2		2	
C403	Heat and Mass Transfer	2		2		
C404	Wind Tunnel Techniques	2	2			
C404	Guidance Navigation & Control				2	
Average Indirect PSO Attainment		(Scale: 0-3)	1	1	1	0
		(%)	45	27	28	14

  
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Department of Aeronautical Engineering

**Summary of Total Attainment of PSOs (Direct: 80% and Indirect: 20%) for the Batch : 2018**

**Graduation Period: 2018-to-2022**

**Scheme**

**2018**


**No.of Courses**


**61**

**Total Attainment of Programme Specific Outcomes**

CID	Title of Course	1	2	3	4
C101	Calculus and Linear Algebra				
C102	Engineering Chemistry				
C101	C programming for Problem Solving	2	1		
C104	Basic Electronics	2		2	
C105	Elements of Mechanical Engineering		2		
C106	Engineering Chemistry Laboratory				
C107	C Programming Laboratory	3	3		
C108	Technical English-1				
C111	Calculus and Linear Algebra				
C112	Engineering Physics				
C101	Basic Electrical Engg	3			
C112	Elements of Civil Engineering and Mechanics		1		
C115	Engineering Graphics			2	
C116	Engineering Physics Lab				
C107	Basic Electrical Engineering Lab	3		3	
C118	Technical English-2				
C201	Tranform Calculus, Fourier Series & Numerical Techniques	2	2	2	2
C202	Aero Thermodynamics	1		1	
C203	Mechanics of Materials	2		2	
C204	Elements of Aeronautics	2	2	2	2
C205	Fluid Mechanics	2		2	
C206	Measurment and Metrology	2		2	
C207	Measurements and Metrology Lab	3	3		
C208	Machineshop Lab	3	3		3
C211	Complex Analysis, Probability and Sampling Distributions	3	3	3	3
C212	Aerodynamics - I		3	3	
C213	Aircraft Propulsion	3		3	
C214	Mechanisms and Machine Theory	3	3		
C215	Aircraft Material science	3	3		
C216	Turbomachines	3		3	
C217	Material Testing Lab	3			
C218	Computer Aided Aircraft Drawing	3	3		
C301	Management and Entrepreneurship				
C302	Aerodynamics - II	2		2	
C303	Aircraft Structures-I	2	2		2
C304	Introduction to Composites	3		3	
C305	Aircraft System and Instrumentation	2			
C306	Theory of Vibrations	2	2		2
C307	Aerodynamics Lab	3	3	3	
C308	Energy Conversion and Fluid Mechanics Lab	3	3	3	
C311	Aircraft Performace	3		3	
C312	Aircraft Structures-II	3		3	

Summary of Total Attainment of PSOs (Direct: 80% and Indirect: 20%) for the Batch : 2018						
Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses	61	
Total Attainment of Programme Specific Outcomes						
CID	Title of Course	1	2	3	4	
C313	Finite Element Methods	3	3			
C314	Gas Turbine Technology	3	3	3		
C316	Aircraft Propulsion Lab	3		3		
C317	Machine Shop Lab	3				
C318	Mini Project	3				
C401	Aircraft Stability and Control	1	2	1	1	
C402	Computational Fluid Dynamics	2		2		
C406	Modelling and Analysis lab	3	3			
C407	Flight Simulation Laboratory				3	
C408	Project Work Phase - 1	2	2	2	2	
C411	Flight Vehicle Design	2	2	2	2	
C412	Avionics				2	
C413	Project Work Phase - 2	2	2	2	2	
C414	Technical seminar	3	3	3	3	
C415	Internship	3	3	3	3	
C403	Control Engineering		2		2	
C403	Heat and Mass Transfer	2		2		
C404	Wind Tunnel Techniques	3	3			
C404	Guidance Navigation & Control				2	
Average Total PSO Attainment		(Scale: 0-3)	2	1	1	1
		(%)	57	36	37	19

  
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**Summary of COs Attainments from CIE, SEE and CES for the Batch: 2018**

Graduation Period:2018-to-2022		Scheme		2018	No of Courses		61				
CID/CO	CIE	%	SEE	%	CES	%	TOTAL	%	Status		
<b>C101</b>	<b>Course Title</b>			<b>Calculus and Linear Algebra</b>						2018-19	18MAT11
C101.1	2.1	70	1.5	50	2.6	87	2	67	YES		
C101.2	1.9	63	1.5	50	2	67	1.8	60	YES		
C101.3	2	67	1.5	50	1.8	60	1.8	60	YES		
Total	2	67	1.5	50	2.1	71	1.9	62			
<b>C102</b>	<b>Course Title</b>			<b>Engineering Chemistry</b>						2018-19	18CHE12
C102.1	2.8	93	1.3	43	2.2	73	2.3	77	YES		
C102.2	2.5	83	1.3	43	1.7	57	2.1	70	YES		
Total	2.7	88	1.3	43	2	65	2.2	73			
<b>C101</b>	<b>Course Title</b>			<b>C programming for Problem Solving</b>						2018-19	18CPS13
C101.1	2.2	73	0.6	20	1.4	47	1.6	53	NO		
C101.2	0.4	13	0.6	20	1.2	40	0.6	20	NO		
C101.3	1.9	63	0.6	20	1.8	60	1.5	50	NO		
C101.4	3	100	0.6	20	1.2	40	2.1	70	YES		
Total	1.9	63	0.6	20	1.4	47	1.5	48			
<b>C104</b>	<b>Course Title</b>			<b>Basic Electronics</b>						2018-19	18ELN14
C104.1	2.8	93	1.6	53	2.4	80	2.4	80	YES		
C104.2	2.9	97	1.6	53	2.7	90	2.5	83	YES		
C104.3	2.6	87	1.6	53	1.8	60	2.2	73	YES		
Total	2.8	92	1.6	53	2.3	77	2.4	79			
<b>C105</b>	<b>Course Title</b>			<b>Elements of Mechanical Engineering</b>						2018-19	18ME15
C105.1	2.3	77	1.2	40	2	67	1.9	63	YES		
C105.2	2.6	87	1.2	40	1.5	50	2.1	70	YES		
C105.3	2.3	77	1.2	40	1.5	50	1.9	63	YES		
Total	2.4	80	1.2	40	1.7	56	2	66			
<b>C106</b>	<b>Course Title</b>			<b>Engineering Chemistry Laboratory</b>						2018-19	18CHE12
C102.1	3	100	2.4	80	2	67	2.7	90	YES		
C102.2	3	100	2.4	80	2.6	87	2.8	93	YES		
C102.3	2.8	93	2.4	80	1.8	60	2.6	87	YES		
Total	2.9	98	2.4	80	2.1	71	2.7	90			
<b>C107</b>	<b>Course Title</b>			<b>C Programming Laboratory</b>						2018-19	18CPL17
C107.1	3	100	1.9	63	1.4	47	2.4	80	NO		
C107.2	3	100	1.9	63	1.4	47	2.4	80	YES		
C107.3	2.8	93	1.9	63	1.9	63	2.4	80	YES		
Total	2.9	98	1.9	63	1.6	52	2.4	80			
<b>C108</b>	<b>Course Title</b>			<b>Technical English-1</b>						2018-19	18EGH18
C108.1	1.4	47	1.9	63			1.6	53	NO		
C108.2	1.4	47	1.9	63			1.6	53	NO		
C108.3	1.4	47	1.9	63			1.6	53	NO		
C108.4	1.4	47	1.9	63			1.6	53	NO		
C108.5	1.1	37	1.9	63			1.4	47	NO		
Total	1.3	45	1.9	63	0		1.6	52			

Summary of COs Attainments from CIE, SEE and CES for the Batch: 2018										
Graduation Period:2018-to-2022			Scheme		2018	No of Courses		61		
CID/CO	CIE	%	SEE	%	CES	%	TOTAL	%	Status	
<b>C111</b>	<b>Course Title</b>			<b>Calculus and Linear Algebra</b>					2018-19	18MAT21
C111.1	1.7	57	1.6	53	1.5	50	1.7	57	NO	
C111.2	1.7	57	1.6	53	1.5	50	1.7	57	NO	
C111.3	1.3	43	1.6	53	0.6	20	1.3	43	NO	
Total	1.6	52	1.6	53	1.2	40	1.6	52		
<b>C112</b>	<b>Course Title</b>			<b>Engineering Physics</b>					2018-19	18PHY12
C112.1	2.7	90	1.3	43	1.5	50	2.2	73	YES	
C112.2	2.6	87	1.3	43	2.1	70	2.2	73	YES	
C112.3	2.8	93	1.3	43	1.4	47	2.2	73	YES	
Total	2.7	90	1.3	43	1.7	56	2.2	73		
<b>C101</b>	<b>Course Title</b>			<b>Basic Electrical Engg</b>					2018-19	18ELE31
C101.1	2.9	97	1.8	60	3	100	2.6	87	YES	
C101.2	2.9	97	1.8	60	3	100	2.6	87	YES	
C101.3	2.9	97	1.8	60	2.9	97	2.6	87	YES	
C101.4	3	100	1.8	60	2.6	87	2.6	87	YES	
Total	2.9	98	1.8	60	2.9	96	2.6	87		
<b>C112</b>	<b>Course Title</b>			<b>Elements of Civil Engineering and Mechanics</b>					2018-19	18CIV24
CO1	1.4	47	0.8	27	2.6	87	1	33	NO	
CO2	1.1	37	0.8	27	2.6	87	0.9	30	NO	
CO3	1.3	43	0.8	27	2.6	87	1	33	NO	
Total	1.3	42	0.8	27	2.6	87	1	32		
<b>C115</b>	<b>Course Title</b>			<b>Engineering Graphics</b>					2018-19	18EGDL25
C115.1	2.3	77	2.3	77	1.2	40	2.2	73	YES	
C115.2	2.3	77	2.3	77	1.5	50	2.2	73	YES	
C115.3	2.6	87	2.3	77	2.1	70	2.5	83	YES	
Total	2.4	80	2.3	77	1.6	53	2.3	77		
<b>C116</b>	<b>Course Title</b>			<b>Engineering Physics Lab</b>					2018-19	18PHYL16
C116.1	2.9	97	2.7	90	1.1	37	2.6	87	YES	
C116.2	2.9	97	2.7	90	1.6	53	2.7	90	YES	
C116.3	2.9	97	2.7	90	1.7	57	2.7	90	YES	
Total	2.9	97	2.7	90	1.5	49	2.7	89		
<b>C107</b>	<b>Course Title</b>			<b>Basic Electrical Engineering Lab</b>					2018-19	18ELEL17
C107.1	3	100	2.9	97	2.6	87	2.9	97	YES	
C107.2	3	100	2.9	97	2.8	93	3	100	YES	
C107.3	3	100	2.9	97	2.1	70	2.9	97	YES	
C107.4	2.9	97	2.9	97	2.3	77	2.8	93	YES	
Total	3	99	2.9	97	2.5	82	2.9	97		
<b>C118</b>	<b>Course Title</b>			<b>Technical English-2</b>					2018-19	18EGH28
C118.1	1.9	63	1	33			1.6	53	NO	
C118.2	2.4	80	1	33			1.8	60	YES	
C118.3	2.4	80	1	33			1.8	60	YES	
C118.4	2	67	1	33			1.6	53	NO	
C118.5	1.8	60	1	33			1.5	50	NO	
Total	2.1	70	1	33	0		1.7	55		
<b>C201</b>	<b>Course Title</b>			<b>Tranform Calculus, Fourier Series &amp;</b>					2019-20	18MAT31

<b>Summary of COs Attainments from CIE, SEE and CES for the Batch: 2018</b>										
<b>Graduation Period:2018-to-2022</b>			<b>Scheme</b>		<b>2018</b>	<b>No of Courses</b>		<b>61</b>		
<b>CID/CO</b>	<b>CIE</b>	<b>%</b>	<b>SEE</b>	<b>%</b>	<b>CES</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>	<b>Status</b>	
C201.1	1.9	63	1.3	43	1.9	63	1.7	57	NO	
C201.2	2.1	70	1.3	43	2	67	1.9	63	YES	
C201.3	2.3	77	1.3	43	1.7	57	2	67	YES	
Total	2.1	70	1.3	43	1.9	62	1.9	62		
<b>C202</b>	<b>Course Title</b>		<b>Aero Thermodynamics</b>						2019-20	18AE32
C202.1	2.1	70	0.5	17	2.1	70	1.6	53	NO	
C202.2	1.3	43	0.5	17	1.7	57	1.1	37	NO	
C202.3	1.8	60	0.5	17	1.1	37	1.4	47	NO	
C202.4	1.6	53	0.5	17	2	67	1.3	43	NO	
Total	1.7	57	0.5	17	1.7	58	1.4	45		
<b>C203</b>	<b>Course Title</b>		<b>Mechanics of Materials</b>						2019-20	18AE33
C203.1	2.4	80	0.8	27	3	100	2	67	YES	
C203.2	1.7	57	0.8	27	2.6	87	1.5	50	NO	
C203.3	2.5	83	0.8	27	2.2	73	2	67	YES	
C203.4	3	100	0.8	27	2.3	77	2.3	77	YES	
Total	2.4	80	0.8	27	2.5	84	2	65		
<b>C204</b>	<b>Course Title</b>		<b>Elements of Aeronautics</b>						2019-20	18AE34
C204.1	2.6	87	0.5	17	2.7	90	2	67	YES	
C204.2	2	67	0.5	17	1.6	53	1.5	50	NO	
C204.3	2	67	0.5	17	1.7	57	1.5	50	NO	
C204.4	2.3	77	0.5	17	1.8	60	1.7	57	NO	
Total	2.2	74	0.5	17	2	65	1.7	56		
<b>C205</b>	<b>Course Title</b>		<b>Fluid Mechanics</b>						2019-20	18AE35
C205.1	2.8	93	1.6	53	1.8	60	2.4	80	YES	
C205.2	2.7	90	1.6	53	1.8	60	2.3	77	YES	
C205.3	2.7	90	1.6	53	1.8	60	2.3	77	YES	
C205.4	3	100	1.6	53			2.3	77	YES	
Total	2.8	93	1.6	53	1.4	45	2.3	78		
<b>C206</b>	<b>Course Title</b>		<b>Measurment and Metrology</b>						2019-20	18AE36
C206.1	2.5	83	0.9	30	2.4	80	2	67	YES	
C206.2	2.9	97	0.9	30	2.1	70	2.2	73	YES	
C206.3	3	100	0.9	30	1.5	50	2.2	73	YES	
C206.4	2.4	80	0.9	30	0.9	30	1.8	60	YES	
Total	2.7	90	0.9	30	1.7	58	2.1	68		
<b>C207</b>	<b>Course Title</b>		<b>Measurements and Metrology Lab</b>						2019-20	18AEL37A
C207.1	2.9	97	2.8	93	1.4	47	2.7	90	YES	
C207.2	2.8	93	2.8	93	1.7	57	2.7	90	YES	
C207.3	2.8	93	2.8	93	1.4	47	2.7	90	YES	
C207.4	2.8	93	2.8	93	1.7	57	2.7	90	YES	
Total	2.8	94	2.8	93	1.6	52	2.7	90		
<b>C208</b>	<b>Course Title</b>		<b>Machineshop Lab</b>						2019-20	18AEL38
C208.1	3	100	2.8	93	2.1	70	2.9	97	YES	
C208.2	3	100	2.8	93	2.3	77	2.9	97	YES	
C208.3	2.7	90	2.8	93	1.4	47	2.6	87	YES	
C208.4	1.6	53	2.8	93	2.6	87	2.1	70	YES	
Total	2.6	86	2.8	93	2.1	70	2.6	88		

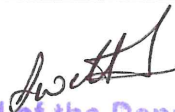
<b>Summary of COs Attainments from CIE, SEE and CES for the Batch: 2018</b>											
<b>Graduation Period:2018-to-2022</b>				<b>Scheme</b>		<b>2018</b>	<b>No of Courses</b>		<b>61</b>		
<b>CID/CO</b>	<b>CIE</b>	<b>%</b>	<b>SEE</b>	<b>%</b>	<b>CES</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>	<b>Status</b>		
<b>C211</b>	<b>Course Title</b>			<b>Complex Analysis, Probability and Sampling Distributions</b>						2019-20	18MAT41
C211.1	3	100	1.9	63	2.2	73	2.7	90	YES		
C211.2	3	100	1.9	63	2.1	70	2.6	87	YES		
C211.3	3	100	1.9	63	1.9	63	2.6	87	YES		
Total	3	100	1.9	63	2.1	69	2.6	88			
<b>C212</b>	<b>Course Title</b>			<b>Aerodynamics - I</b>						2020-21	18AE42
C212.1	2.8	93	1.9	63	2.3	77	2.6	87	YES		
C212.2	3	100	1.9	63	1.5	50	2.4	80	YES		
C212.3	2.6	87	1.9	63	2.3	77	2.5	83	YES		
C212.4	3	100	1.9	63	1.5	50	2.4	80	YES		
Total	2.9	95	1.9	63	1.9	63	2.5	83			
<b>C213</b>	<b>Course Title</b>			<b>Aircraft Propulsion</b>						2019-20	18AE43
C213.1	3	100	1.9	63	2.3	77	2.7	90	YES		
C213.2	2.6	87	1.9	63	1.8	60	2.3	77	YES		
C213.3	2.7	90	1.9	63	2.1	70	2.5	83	YES		
C213.4	3	100	1.9	63	2.2	73	2.7	90	YES		
Total	2.8	94	1.9	63	2.1	70	2.6	85			
<b>C214</b>	<b>Course Title</b>			<b>Mechanisms and Machine Theory</b>						2019-20	18AE44
C214.1	2.7	90	1.9	63	2.7	90	2.7	90	YES		
C214.2	3	100	1.9	63	2.7	90	2.9	97	YES		
C214.3	2.6	87	1.9	63	2.1	70	2.4	80	YES		
C214.4	2.7	90	1.9	63	1.8	60	2.4	80	YES		
Total	2.8	92	1.9	63	2.3	78	2.6	87			
<b>C215</b>	<b>Course Title</b>			<b>Aircraft Material science</b>						2019-20	18AE45
C215.1	3	100	0.9	30	3	100	3	100	YES		
C215.2	2.8	93	0.9	30	2.3	77	2.6	87	YES		
C215.3	3	100	0.9	30	1.7	57	2.5	83	YES		
C215.4	3	100	0.9	30	3	100	3	100	YES		
Total	3	98	0.9	30	2.5	83	2.8	93			
<b>C216</b>	<b>Course Title</b>			<b>Turbomachines</b>						2019-20	18AE46
C216.1	3	100	1.3	43	0.8	27	2.1	70	YES		
C216.2	3	100	1.3	43	1	33	2.2	73	YES		
C216.3	3	100	1.3	43	1	33	2.2	73	YES		
C216.4	3	100	1.3	43	1	33	2.2	73	YES		
Total	3	100	1.3	43	1	32	2.2	73			
<b>C217</b>	<b>Course Title</b>			<b>Material Testing Lab</b>						2019-20	18AEL47A
C217.1	3	100	0.7	23	2.1	70	2.6	87	YES		
C217.2	3	100	0.7	23	2.3	77	2.7	90	YES		
C217.3	3	100	0.7	23	1.4	47	2.4	80	YES		
Total	3	100	0.7	23	1.9	64	2.6	86			
<b>C218</b>	<b>Course Title</b>			<b>Computer Aided Aircraft Drawing</b>						2019-20	18AEL48
C218.1	2.9	97	0.9	30	1.8	60	2.5	83	YES		
C218.2	3	100	0.9	30	2.1	70	2.6	87	YES		
C218.3	3	100	0.9	30	2.3	77	2.7	90	YES		
C218.4	2.8	93	0.9	30	1.8	60	2.4	80	YES		


Summary of COs Attainments from CIE, SEE and CES for the Batch: 2018											
Graduation Period:2018-to-2022				Scheme		2018	No of Courses		61		
CID/CO	CIE	%	SEE	%	CES	%	TOTAL	%	Status		
Total	2.9	98	0.9	30	2	67	2.6	85			
<b>C301</b>	<b>Course Title</b>			<b>Management and Entrepreneurship</b>						2020-21	18AE51
C301.1	3	100	1.5	50	3	100	2.6	87	YES		
C301.2	3	100	1.5	50	1.8	60	2.4	80	YES		
C301.3	3	100	1.5	50	2.7	90	2.5	83	YES		
C301.4	2.7	90	1.5	50	2.7	90	2.4	80	YES		
Total	2.9	98	1.5	50	2.6	85	2.5	83			
<b>C302</b>	<b>Course Title</b>			<b>Aerodynamics - II</b>						2020-21	18AE52
C302.1	3	100	0.1	3	2.6	87	2.1	70	YES		
C302.2	3	100	0.1	3	0.8	27	1.9	63	YES		
C302.3	3	100	0.1	3	0.5	17	1.9	63	YES		
C302.4	3	100	0.1	3	1	33	1.9	63	YES		
Total	3	100	0.1	3	1.2	41	2	65			
<b>C303</b>	<b>Course Title</b>			<b>Aircraft Structures-I</b>						2020-21	18AE53
C303.1	3	100	0.7	23	2.5	83	2.3	77	YES		
C303.2	2.8	93	0.7	23	2.1	70	2.1	70	YES		
C303.3	2.5	83	0.7	23	2.1	70	1.9	63	YES		
C303.4	2.3	77	0.7	23	2.1	70	1.8	60	YES		
Total	2.7	88	0.7	23	2.2	73	2	68			
<b>C304</b>	<b>Course Title</b>			<b>Introduction to Composites</b>						2020-21	18AE54
C304.1	3	100	1.1	37	3	100	2.4	80	YES		
C304.2	3	100	1.1	37	2.6	87	2.4	80	YES		
C304.3	3	100	1.1	37	3	100	2.4	80	YES		
C304.4	3	100	1.1	37	3	100	2.4	80	YES		
Total	3	100	1.1	37	2.9	97	2.4	80			
<b>C305</b>	<b>Course Title</b>			<b>Aircraft System and instrumentation</b>						2020-21	18AE55
C305.1	3	100	0.2	7	0.7	23	1.9	63	YES		
C305.2	3	100	0.2	7	1	33	2	67	YES		
C305.3	3	100	0.2	7	1	33	2	67	YES		
C305.4	2.9	97	0.2	7	0.6	20	1.9	63	YES		
Total	3	99	0.2	7	0.8	28	2	65			
<b>C306</b>	<b>Course Title</b>			<b>Theory of Vibrations</b>						2020-21	18AE56
C306.1	3	100	0.1	3	1.5	50	2	67	YES		
C306.2	3	100	0.1	3	0.9	30	1.9	63	YES		
C306.3	3	100	0.1	3	1.5	50	2	67	YES		
C306.4	3	100	0.1	3	1.5	50	2	67	YES		
Total	3	100	0.1	3	1.4	45	2	66			
<b>C307</b>	<b>Course Title</b>			<b>Aerodynamics Lab</b>						2020-21	18AEL57
C307.1	3	100	3	100	2.2	73	2.9	97	YES		
C307.2	3	100	3	100	1.8	60	2.9	97	YES		
C307.3	3	100	3	100	1.9	63	2.9	97	YES		
C307.4	3	100	3	100	2	67	2.9	97	YES		
Total	3	100	3	100	2	66	2.9	97			
<b>C308</b>	<b>Course Title</b>			<b>Energy Conversion and Fluid Mechanics Lab</b>						2020-21	18AEL58
C308.1	3	100	3	100	2.2	73	2.9	97	YES		

Summary of COs Attainments from CIE, SEE and CES for the Batch: 2018											
Graduation Period:2018-to-2022			Scheme		2018	No of Courses		61			
CID/CO	CIE	%	SEE	%	CES	%	TOTAL	%	Status		
C308.2	3	100	3	100	1.9	63	2.9	97	YES		
C308.3	3	100	3	100	2.1	70	2.9	97	YES		
C308.4	3	100	3	100	2	67	2.9	97	YES		
Total	3	100	3	100	2.1	68	2.9	97			
<b>C311</b>	<b>Course Title</b>			<b>Aircraft Performace</b>						2020-21	18AE61
C311.1	3	100	0.4	13	1.6	53	2.4	80	YES		
C311.2	3	100	0.4	13	1.3	43	2.3	77	YES		
C311.3	3	100	0.4	13	1.6	53	2.4	80	YES		
C311.4	3	100	0.4	13	1.3	43	2.3	77	YES		
Total	3	100	0.4	13	1.5	48	2.4	78			
<b>C312</b>	<b>Course Title</b>			<b>Aircraft Structures-II</b>						2020-21	18AE62
C312.1	3	100	0.8	27	2.3	77	2.7	90	YES		
C312.2	2.7	90	0.8	27	1.9	63	2.4	80	YES		
C312.3	2.5	83	0.8	27	2.3	77	2.4	80	YES		
C312.4	1.9	63	0.8	27	2.3	77	2.1	70	YES		
Total	2.5	84	0.8	27	2.2	73	2.4	80			
<b>C313</b>	<b>Course Title</b>			<b>Finite Element Methods</b>						2020-21	18AE63
C313.1	3	100	0.4	13	3	100	3	100	YES		
C313.2	3	100	0.4	13	2.3	77	2.7	90	YES		
C313.3	3	100	0.4	13	1.7	57	2.5	83	YES		
C313.4	3	100	0.4	13	3	100	3	100	YES		
Total	3	100	0.4	13	2.5	83	2.8	93			
<b>C314</b>	<b>Course Title</b>			<b>Gas Turbine Technology</b>						2020-21	18AE644
C314.1	3	100	1.7	57	2.1	70	2.6	87	YES		
C314.2	3	100	1.7	57	2.3	77	2.7	90	YES		
C314.3	3	100	1.7	57	2.1	70	2.6	87	YES		
C314.4	3	100	1.7	57	2.3	77	2.7	90	YES		
Total	3	100	1.7	57	2.2	73	2.7	88			
<b>C316</b>	<b>Course Title</b>			<b>Aircraft Propulsion Lab</b>						2020-21	18AEL66
C316.1	3	100	1.7	57	1.9	63	2.6	87	YES		
C316.2	3	100	1.7	57	2.1	70	2.6	87	YES		
C316.3	3	100	1.7	57	2.3	77	2.7	90	YES		
C316.4	3	100	1.7	57	2.1	70	2.6	87	YES		
Total	3	100	1.7	57	2.1	70	2.6	88			
<b>C317</b>	<b>Course Title</b>			<b>Aircraft Structures Lab</b>						2020-21	18AEL67
C317.1	3	100	0.4	13	3	100	3	100	YES		
C317.2	3	100	0.4	13	2.5	83	2.8	93	YES		
C317.3	3	100	0.4	13	1.7	57	2.5	83	YES		
C317.4	3	100	0.4	13	3	100	3	100	YES		
Total	3	100	0.4	13	2.6	85	2.8	94			
<b>C318</b>	<b>Course Title</b>			<b>Mini Project</b>						2020-21	18AEMP6
C318.1	3	100	0.4	13	3	100	3	100	YES		
C318.2	3	100	0.4	13	2.3	77	2.7	90	YES		
C318.3	3	100	0.4	13	1.7	57	2.5	83	YES		
C318.4	3	100	0.4	13	3	100	3	100	YES		
C318.5	3	100	0.4	13	3	100	3	100	YES		

Summary of COs Attainments from CIE, SEE and CES for the Batch: 2018										
Graduation Period:2018-to-2022			Scheme		2018	No of Courses		61		
CID/CO	CIE	%	SEE	%	CES	%	TOTAL	%	Status	
Total	3	100	0.4	13	2.6	87	2.8	95		
<b>C401</b>	<b>Course Title</b>			<b>Aircraft Stability and Control</b>					2021-22	18AE71
C401.1	2	67	1.4	47	0.1	3	1.6	53	NO	
C401.2	2	67	1.4	47	0.1	3	1.6	53	NO	
C401.3	2.2	73	1.4	47	0.4	13	1.8	60	YES	
C401.4	1.4	47	1.4	47	0.4	13	1.3	43	NO	
Total	1.9	63	1.4	47	0.3	8	1.6	53		
<b>C402</b>	<b>Course Title</b>			<b>Computational Fluid Dynamics</b>					2021-22	18AE72
C402.1	2.5	83	0.3	10	1.3	43	1.7	57	NO	
C402.2	1.9	63	0.3	10	1.3	43	1.4	47	NO	
C402.3	2.2	73	0.3	10	1.3	43	1.6	53	NO	
C402.4	1.8	60	0.3	10	1.3	43	1.3	43	NO	
Total	2.1	70	0.3	10	1.3	43	1.5	50		
<b>C406</b>	<b>Course Title</b>			<b>Modelling and Analysis lab</b>					2021-22	18AEL76
C406.1	2.9	97	2.7	90	1.8	60	2.8	93	YES	
C406.2	3	100	2.7	90	0.6	20	2.9	97	YES	
C406.3	2.8	93	2.7	90	1.2	40	2.8	93	YES	
C406.4	2.7	90	2.7	90	1.8	60	2.7	90	YES	
Total	2.9	95	2.7	90	1.4	45	2.8	93		
<b>C407</b>	<b>Course Title</b>			<b>Flight Simulation Laboratory</b>					2021-22	18AEL77
C407.1	3	100	3	100	1.2	40	2.8	93	YES	
C407.2	3	100	3	100	1.1	37	2.8	93	YES	
C407.3	3	100	3	100	1.2	40	2.8	93	YES	
C407.4	3	100	3	100	1.1	37	2.8	93	YES	
Total	3	100	3	100	1.2	38	2.8	93		
<b>C408</b>	<b>Course Title</b>			<b>Project Work Phase - 1</b>					2021-22	18AEP78
C408.1	2.7	90					2.7	90	YES	
C408.2	2.8	93					2.8	93	YES	
C408.3	2.9	97					2.9	97	YES	
C408.4	3	100					3	100	YES	
C408.5	3	100					3	100	YES	
Total	2.9	96	0		0		2.9	96		
<b>C411</b>	<b>Course Title</b>			<b>Flight Vehicle Design</b>					2021-22	18AE81
C411.1	2.5	83	1.4	47	1.2	40	2	67	YES	
C411.2	2.2	73	1.4	47	1.2	40	1.9	63	YES	
C411.3	2.4	80	1.4	47	0.6	20	1.9	63	YES	
C411.4	2.8	93	1.4	47	0.6	20	2.2	73	YES	
Total	2.5	83	1.4	47	0.9	30	2	67		
<b>C412</b>	<b>Course Title</b>			<b>Avionics</b>					2021-22	18AE821
C412.1	2.7	90	1.6	53	2	67	2.3	77	YES	
C412.2	2.7	90	1.6	53	2.5	83	2.4	80	YES	
C412.3	2.8	93	1.6	53	1.5	50	2.3	77	YES	
C412.4	2.6	87	1.6	53	2.5	83	2.3	77	YES	
Total	2.7	90	1.6	53	2.1	71	2.3	78		
<b>C413</b>	<b>Course Title</b>			<b>Project Work Phase - 2</b>					2021-22	18AEP83
C413.2	3	100	3	100	2.4	80	2.9	97	YES	

Summary of COs Attainments from CIE, SEE and CES for the Batch: 2018											
Graduation Period:2018-to-2022			Scheme		2018	No of Courses		61			
CID/CO	CIE	%	SEE	%	CES	%	TOTAL	%	Status		
C413.3	3	100	3	100	2	67	2.9	97	YES		
C413.4	3	100	3	100	2.1	70	2.9	97	YES		
C413.5	2.9	97	3	100	1.9	63	2.8	93	YES		
Total	3	99	3	100	2.1	70	2.9	96			
<b>C414</b>	<b>Course Title</b>			<b>Technical seminar</b>						2021-22	18AES84
C414.1	3	100			0.9	30	2.2	73	YES		
C414.2	2.9	97			1.5	50	2.3	77	YES		
C414.3	2.3	77			2.6	87	2.4	80	YES		
C414.4	2.9	97			1.3	43	2.3	77	YES		
Total	2.8	93	0		1.6	53	2.3	77			
<b>C415</b>	<b>Course Title</b>			<b>Internship</b>						2021-22	18AEI85
C415.1	3	100	3	100	2	67	2.9	97	YES		
C415.2	3	100	3	100	2.5	83	3	100	YES		
C415.3	3	100	3	100	1.5	50	2.9	97	YES		
C415.4	2.6	87	3	100	2.5	83	2.7	90	YES		
Total	2.9	97	3	100	2.1	71	2.9	96			
<b>C403</b>	<b>Course Title</b>			<b>Control Engineering</b>						2021-22	18AE732
C403.1	2.8	93	1.6	53	2.3	77	2.4	80	YES		
C403.2	2.3	77	1.6	53	2.3	77	2.1	70	YES		
C403.3	1.9	63	1.6	53	2.3	77	1.9	63	YES		
C403.4	1.9	63	1.6	53	2.3	77	1.9	63	YES		
Total	2.2	74	1.6	53	2.3	77	2.1	69			
<b>C403</b>	<b>Course Title</b>			<b>Heat and Mass Transfer</b>						2021-22	18AE734
C403.1	2.5	83	1.6	53	2.6	87	2.2	73	YES		
C403.2	2.6	87	1.6	53	2.6	87	2.3	77	YES		
C403.3	2.8	93	1.6	53	2.6	87	2.4	80	YES		
C403.4	2.8	93	1.6	53	2.1	70	2.4	80	YES		
Total	2.7	89	1.6	53	2.5	83	2.3	78			
<b>C404</b>	<b>Course Title</b>			<b>Wind Tunnel Techniques</b>						2021-22	18AE742
C404.1	2.9	97	2.5	83	1.7	57	2.7	90	YES		
C404.2	2.9	97	2.5	83	2.2	73	2.7	90	YES		
C404.3	2.9	97	2.5	83	1.7	57	2.7	90	YES		
C404.4	2.7	90	2.5	83	1.7	57	2.6	87	YES		
Total	2.9	95	2.5	83	1.8	61	2.7	89			
<b>C404</b>	<b>Course Title</b>			<b>Guidance Navigation &amp; Control</b>						2021-22	18AE743
C404.1	2.8	93	1.4	47	1.5	50	2.3	77	YES		
C404.2	2.2	73	1.4	47	1.5	50	1.9	63	YES		
C404.3	2.8	93	1.4	47	1.7	57	2.3	77	YES		
C404.4	2.8	93	1.4	47	1.7	57	2.3	77	YES		
Total	2.7	88	1.4	47	1.6	53	2.2	73			

  
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Department of Aeronautical Engineering

**Summary of Average Mapping of COs to PSOs, for the Batch: 2018**

Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses	61
CID	Title of Course	PSOs			
		1	2	3	4
C101	Calculus and Linear Algebra				
C102	Engineering Chemistry				
C101	C programming for Problem Solving	1	1		
C104	Basic Electronics	3		1	
C105	Elements of Mechanical Engineering		2		
C102	Engineering Chemistry Laboratory				
C107	C Programming Laboratory	1	1		
C108	Technical English-1				
C111	Calculus and Linear Algebra				
C112	Engineering Physics				
C101	Basic Electrical Engg	3			
C112	Elements of Civil Engineering and Mechanics		3		
C115	Engineering Graphics			2	
C116	Engineering Physics Lab				
C107	Basic Electrical Engineering Lab	1		1	
C118	Technical English-2				
C201	Tranform Calculus, Fourier Series & Numerical Techniques	1	1	1	1
C202	Aero Thermodynamics	1		3	
C203	Mechanics of Materials	3		3	
C204	Elements of Aeronautics	2	1	1	1
C205	Fluid Mechanics	2		3	
C206	Measurment and Metrology	3	3		
C207	Measurements and Metrology Lab	3	3		
C208	Machineshop Lab	3	1		1
C211	Complex Analysis, Probability and Sampling Distributions	1	1	1	1
C212	Aerodynamics - I		2	2	
C213	Aircraft Propulsion	2		2	
C214	Mechanisms and Machine Theory	3	2		
C215	Aircraft Material science	2	2		
C216	Turbomachines	2		3	
C217	Material Testing Lab	3			
C218	Computer Aided Aircraft Drawing	2	2		
C301	Management and Entrepreneurship				
C302	Aerodynamics - II	2		3	
C303	Aircraft Structures-I	3	2		1
C304	Introduction to Composites	3		3	
C305	Aircraft System and Instrumentation	3			
C306	Theory of Vibrations	3	1		1
C307	Aerodynamics Lab	2	1	2	
C308	Energy Conversion and Fluid Mechanics Lab	1	1	2	



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Department of Aeronautical Engineering

**Summary of COs Avg-attainments from CIE, SEE and CES for the Batch: 2018**

Graduation Period: 2018-to-2022		Scheme	2018		No.of Courses		61		
CID	Title of Course	Course Outcomes Attainments							
		CIE	(%)	SEE	(%)	CES	(%)	TOT	(%)
C101	Calculus and Linear Algebra	2	67	1.5	50	2.1	71	1.9	62
C102	Engineering Chemistry	2.7	88	1.3	43	2	65	2.2	73
C101	C programming for Problem Solving	1.9	63	0.6	20	1.4	47	1.5	48
C104	Basic Electronics	2.8	92	1.6	53	2.3	77	2.4	79
C105	Elements of Mechanical Engineering	2.4	80	1.2	40	1.7	56	2	66
C106	Engineering Chemistry Laboratory	2.9	98	2.4	80	2.1	71	2.7	90
C107	C Programming Laboratory	2.9	98	1.9	63	1.6	52	2.4	80
C108	Technical English-1	1.3	45	1.9	63			1.6	52
C111	Calculus and Linear Algebra	1.6	52	1.6	53	1.2	40	1.6	52
C112	Engineering Physics	2.7	90	1.3	43	1.7	56	2.2	73
C101	Basic Electrical Engg	2.9	98	1.8	60	2.9	96	2.6	87
C112	Elements of Civil Engineering and Mechanics	1.3	42	0.8	27	2.6	87	1	32
C115	Engineering Graphics	2.4	80	2.3	77	1.6	53	2.3	77
C116	Engineering Physics Lab	2.9	97	2.7	90	1.5	49	2.7	89
C107	Basic Electrical Engineering Lab	3	99	2.9	97	2.5	82	2.9	97
C118	Technical English-2	2.1	70	1	33			1.7	55
C201	Tranform Calculus, Fourier Series & Numerical Techniques	2.1	70	1.3	43	1.9	62	1.9	62
C202	Aero Thermodynamics	1.7	57	0.5	17	1.7	58	1.4	45
C203	Mechanics of Materials	2.4	80	0.8	27	2.5	84	2	65
C204	Elements of Aeronautics	2.2	74	0.5	17	2	65	1.7	56
C205	Fluid Mechanics	2.8	93	1.6	53	1.4	45	2.3	78
C206	Measurment and Metrology	2.7	90	0.9	30	1.7	58	2.1	68
C207	Measurements and Metrology Lab	2.8	94	2.8	93	1.6	52	2.7	90
C208	Machineshop Lab	2.6	86	2.8	93	2.1	70	2.6	88
C211	Complex Analysis, Probability and Sampling Distributions	3	100	1.9	63	2.1	69	2.6	88
C212	Aerodynamics - I	2.9	95	1.9	63	1.9	63	2.5	83
C213	Aircraft Propulsion	2.8	94	1.9	63	2.1	70	2.6	85
C214	Mechanisms and Machine Theory	2.8	92	1.9	63	2.3	78	2.6	87
C215	Aircraft Material science	3	98	0.9	30	2.5	83	2.8	93
C216	Turbomachines	3	100	1.3	43	1	32	2.2	73
C217	Material Testing Lab	3	100	0.7	23	1.9	64	2.6	86
C218	Computer Aided Aircraft Drawing	2.9	98	0.9	30	2	67	2.6	85
C301	Management and Entrepreneurship	2.9	98	1.5	50	2.6	85	2.5	83
C302	Aerodynamics - II	3	100	0.1	3	1.2	41	2	65
C303	Aircraft Structures-I	2.7	88	0.7	23	2.2	73	2	68
C304	Introduction to Composites	3	100	1.1	37	2.9	97	2.4	80
C305	Aircraft System and Instrumentation	3	99	0.2	7	0.8	28	2	65
C306	Theory of Vibrations	3	100	0.1	3	1.4	45	2	66
C307	Aerodynamics Lab	3	100	3	100	2	66	2.9	97

C308	Energy Conversion and Fluid Mechanics Lab	3	100	3	100	2.1	68	2.9	97
C311	Aircraft Performace	3	100	0.4	13	1.5	48	2.4	78
C312	Aircraft Structures-II	2.5	84	0.8	27	2.2	73	2.4	80
C313	Finite Element Methods	3	100	0.4	13	2.5	83	2.8	93
C314	Gas Turbine Technology	3	100	1.7	57	2.2	73	2.7	88
C316	Aircraft Propulsion Lab	3	100	1.7	57	2.1	70	2.6	88
C317	Machine Shop Lab	3	100	0.4	13	2.6	85	2.8	94
C318	Mini Project	3	100	0.4	13	2.6	87	2.8	95
C401	Aircraft Stability and Control	1.9	63	1.4	47	0.3	8	1.6	53
C402	Computational Fluid Dynamics	2.1	70	0.3	10	1.3	43	1.5	50
C406	Modelling and Analysis lab	2.9	95	2.7	90	1.4	45	2.8	93
C407	Flight Simulation Laboratory	3	100	3	100	1.2	38	2.8	93
C408	Project Work Phase - 1	2.9	96					2.9	96
C411	Flight Vehicle Design	2.5	83	1.4	47	0.9	30	2	67
C412	Avionics	2.7	90	1.6	53	2.1	71	2.3	78
C413	Project Work Phase - 2	3	99	3	100	2.1	70	2.9	96
C414	Technical seminar	2.8	93			1.6	53	2.3	77
C415	Internship	2.9	97	3	100	2.1	71	2.9	96
C403	Control Engineering	2.2	74	1.6	53	2.3	77	2.1	69
C403	Heat and Mass Transfer	2.7	89	1.6	53	2.5	83	2.3	78
C404	Wind Tunnel Techniques	2.9	95	2.5	83	1.8	61	2.7	89
C404	Guidance Navigation & Control	2.7	88	1.4	47	1.6	53	2.2	73
	Average Attainment	2.7	88	1.5	50	1.9	63	2.3	77

  
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**Department of Aeronautical Engineering**

**Summary of Blooms Taxonomy Levels: 2018**

**Graduation Period : 2018-to-2022**

**Scheme**

**2018**

**No.of Courses :**

**61**

BTLs	Course Title / BTLs	Remeber	Undrstd	Apply	Analyze	Evaluate	Create	Total			
C101	Calculus and Linear Algebra	24	120	36				180	2018-19	18MAT11	70
C102	Engineering Chemistry	27	153					180	2018-19	18CHE12	70
C101	C programming for Problem Solving		20	160				180	2018-19	18CPS13	70
C104	Basic Electronics	169	161					330	2018-19	18ELN14	13
C105	Elements of Mechanical Engineering							0	2018-19	18ME15	70
C102	Engineering Chemistry Laboratory							0	2018-19	18CHE12	70
C107	C Programming Laboratory	126	70	140				336	2018-19	18CPL17	70
C108	Technical English-1	24	96					120	2018-19	18EGH18	57
C111	Calculus and Linear Algebra	48	84	48				180	2018-19	18MAT21	67
C112	Engineering Physics	49	94	37				180	2018-19	18PHY12	57
C101	Basic Electrical Engg		30	130	20			180	2018-19	18ELE31	12
C112	Elements of Civil Engineering and Mechanics	60	60	60				180	2018-19	18CIV24	67
C115	Engineering Graphics			60				60	2018-19	18EGDL25	55
C116	Engineering Physics Lab	40	40	40				120	2018-19	18PHYL16	67
C107	Basic Electrical Engineering Lab	90	180					270	2018-19	18ELEL17	13
C118	Technical English-2	24	96					120	2018-19	18EGH28	67
C201	Tranform Calculus, Fourier Series & Numerical Techniques	48	60	72				180	2019-20	18MAT31	73
C202	Aero Thermodynamics		30	130				160	2019-20	18AE32	73
C203	Mechanics of Materials			100	80			180	2019-20	18AE33	72
C204	Elements of Aeronautics		46	54				100	2019-20	18AE34	73
C205	Fluid Mechanics		50	130				180	2019-20	18AE35	73
C206	Measurment and Metrology		100	80				180	2019-20	18AE36	73
C207	Measurements and Metrology Lab		20	10	10			40	2019-20	18AEL37	73
C208	Machineshop Lab		40					40	2019-20	18AEL38	73

C211	Complex Analysis, Probability and Sampling Distributions	24	48	48				120	2019-20	18MAT41	73
C212	Aerodynamics - I		20	80				100	2020-21	18AE42	72
C213	Aircraft Propulsion		70	50				120	2019-20	18AE43	72
C214	Mechanisms and Machine Theory		42	70				112	2019-20	18AE44	72
C215	Aircraft Material science			90				90	2019-20	18AE45	72
C216	Turbomachines		60	40				100	2019-20	18AE46	72
C217	Material Testing Lab		25	15				40	2019-20	18AEL47	72
C218	Computer Aided Aircraft Drawing			50				50	2019-20	18AEL48	72
C301	Management and Entrepreneurship							0	2020-21	18AE51	72
C302	Aerodynamics - II		30	130				160	2020-21	18AE52	72
C303	Aircraft Structures-I		90	60				150	2020-21	18AE53	72
C304	Introduction to Composites		50	30	40	40		160	2020-21	18AE54	72
C305	Aircraft System and Instrumentation		160					160	2020-21	18AE55	72
C306	Theory of Vibrations		110	50				160	2020-21	18AE56	72
C307	Aerodynamics Lab		20	20				40	2020-21	18AEL57	72
C308	Energy Conversion and Fluid Mechanics Lab		20	20				40	2020-21	18AEL58	72
C311	Aircraft Performace		110	10				120	2020-21	18AE61	71
C312	Aircraft Structures-II			140	10			150	2020-21	18AE62	71
C313	Finite Element Methods				170			170	2020-21	18AE63	71
C314	Gas Turbine Technology							0	2020-21	18AE644	71
C316	Aircraft Propulsion Lab	20	20					40	2020-21	18AEL66	71
C317	Machine Shop Lab							0	2020-21	18AEL67	71
C318	Mini Project				20	20		40	2020-21	18AEMP68	71
C401	Aircraft Stability and Control		40	100	30			170	2021-22	18AE71	71
C402	Computational Fluid Dynamics		40	120				160	2021-22	18AE72	71
C406	Modelling and Analysis lab		20		10	10		40	2021-22	18AEL76	71
C407	Flight Simulation Laboratory		123	367				490	2021-22	18AEL77	70
C408	Project Work Phase - 1							0	2021-22	18AEP78	71
C411	Flight Vehicle Design		70	100				170	2021-22	18AE81	71
C412	Avionics							0	2021-22	18AE821	70
C413	Project Work Phase - 2							0	2021-22	18AEP83	71

<b>C414</b>	<b>Technical seminar</b>		30	15	20	35		<b>100</b>	2021-22	18AES84	71
<b>C415</b>	<b>Internship</b>		10	30				<b>40</b>	2021-22	18AEI85	70
<b>C403</b>	<b>Control Engineering</b>							<b>0</b>	2021-22	18AE732	54
<b>C403</b>	<b>Heat and Mass Transfer</b>		60	120				<b>180</b>	2021-22	18AE734	17
<b>C404</b>	<b>Wind Tunnel Techniques</b>							<b>0</b>	2021-22	18AE742	43
<b>C404</b>	<b>Guidance Navigation &amp; Control</b>		64	56				<b>120</b>	2021-22	18AE743	26
<b>Total Marks of Each BTL</b>		773	2882	3098	410	105		<b>7268</b>			
<b>Percentage of Marks of each BTL, (%)</b>		11	40	43	6	1					



**Head of the Department**  
Aeronautical Engineering  
Acharya Institute of Technology  
Bangalore - 560 107



**PRINCIPAL**  
ACHARYA INSTITUTE OF TECHNOLOGY  
SOLDEVANAHALLI, BENGALURU - 560 107



# ACHARYA INSTITUTE OF TECHNOLOGY

Affiliated to Visvesvaraya Technological University, Belagavi,  
Approved by AICTE, New Delhi, Recognized by Govt. of Karnataka and  
Accredited by NBA (AE, BT, CSE, ECE, ME, MT)

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## PO Attainment (Batch 2020-2024)




**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Aeronautical Engineering

Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2019

Graduation Period: 2020-to-2024		Scheme		2018		No.of Courses						61					
Total Attainment of Programme Outcomes												Program Specific Outcomes					
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
C101	Calculus And Linear Algebra	2.035	2.05										2.05	0.86	0.86	0.86	0.86
C102	Engineering Chemistry	1.795	1.6				1.6	1.6					1.92				
C103	C Programming For Problem Solving	2.16875	2.12			2.12					2.29		2.29		1.69		
C104	Basic Electronics	2.14375	2.1											1.48		1.36	
C105	Elements Of Mechanical Engineering	2.31375	2.13					2.38					2.27	1.81	1.81	1.81	
C106	Engineering Chemistry Lab	2.775	2.45				2.45	1.45					2.89				
C107	C Programming Laboratory	1.8875	1.89			1.89					2.44		2.44	1.81	1.81		
C108	Technical English-I						1.27				1.27		1.27				
C111	Advanced Calculus And Numerical Methods	2.41875	2.42											0.86	0.86	0.86	0.86
C112	Engineering Physics	2.24375	1.93										2.33	1.52	1.52	1.62	1.62
C113	Basic Electrical Engineering	2.85	2.85				2.85						2.85	2.85			
C114	Elements Of Civil Engineering & Mechanics	2.5925	2.58										2.67		2.39		
C115	Engineering Graphics	2.6	2.6			2.6					2.6		2.6			2.28	
C116	Engineering Physics Lab	2.6225	2.75	2.71													
C117	Basic Electrical Engineering Lab	1.5	1.5				1.47				1.47		1.47	1.81		1.9	
C118	Technical English-2						1.4				1.4	1.4	1.4				
C201	Transform Calculus, Fourier Series & Numerical Techniques	2.315	2.32										2.32	0.76	0.76	0.76	0.76
C202	Aero Thermodynamics	2.33125	2.38	2.33	2.33								2.33	1.73		1.73	
C203	Mechanics Of Materials	2.10625	2.11	2.11	2.06								1.99	1.59	1.59		
C204	Elements Of Aeronautics	2.34	2.34	2.34		0.85							2.34	1.52	1.52	1.71	1.52
C205	Fluid Mechanics	2.565	2.57	2.57									2.57	2.04		2.04	
C206	Measurment And Metrology	2.0875	2.06	2.05									2.09	1.82	1.82		
C207	Measurements And Metrology Lab	2.7275	2.73	2.73		2.73				2.73	2.73		2.73	2.69	2.69		
C208	Machine Shop Lab	3	3	3	3	3				3	3		3	2.85	2.85		
C201	Complex Analysis, Probability & Statistical Methods	2.23375	2.23										2.23	0.76	0.76	0.76	0.76
C212	Aerodynamics - I	2.58125	2.58	2.58	2.58								2.58	2.61	2.61	2.61	2.61
C213	Aircraft Propulsion	3	3	3									3	2.85		2.85	
C214	Mechanisms And Machine Theory	2.89	2.89	2.89	2.89								2.89	2.64	2.64		
C215	Aircraft Material And Science	2.3625	2.36	2.36									2.36	2.09	2.09		
C216	Turbomachines	2.95	2.95	2.95	2.95	1.5							2.95	2.76		2.76	
C217	Material Testing Lab	2.8625	2.86	2.86		2.86				2.86	2.86		2.86	2.85	2.85		
C218	Computer Aided Aircraft Drawing	2.875	2.88	2.88	2.88	2.88				2.88	2.88		2.88	2.85	2.85	2.85	
C301	Management And Entrepreneurship								2.61	2.61	2.61	2.61	2.61				
C302	Aerodynamics - II	1.1	1.05	1.05	1.05								1.3	1.71	1.71		1.81
C303	Aircraft Structures-I	2.55375	2.55	2.55									2.55	2.2	2.2	2.2	
C304	Introduction To Composite Materials	2.4625	2.46	2.45									2.46	2.19	2.19		
C305	Aircraft Systems & Instrumentation	2.735				0.91							0.91	2.28		2.09	
C306	Theory Of Vibrations	2.47125	2.47	2.47	2.47								2.47	2.26	2.26	2.28	2.26
C307	Aerodynamics Lab	2.6775	2.68	2.68	2.65	2.68				2.68	2.68		2.68	2.74	2.74	2.74	2.74

C308	Energy Conversion And Fluid Mechanics Lab	2.7225	2.7		2.77					2.77	2.74	2.7	2.67	2.82	2.82	2.82	
C311	Aircraft Performace	1.98125	2.01	1.1	1.1	2.04				1.1	1.1		2.01	2.04			2.09
C312	Aircraft Structures-II	2.025	2.03	2.03	2.03								2.03	2.09	2.09	2.09	
C313	Finite Element Method	0.99	1	1	1	1.05							1	2.19	2.09	2.19	
C314	Gas Turbine Technology	2.68	2.72		2.64								2.69	2.47	2.47	2.4	
C316	Aircraft Propulsion Lab	2.62875	2.64		2.67					2.65			2.61	2.82		2.82	
C317	Aircraft Structures Lab	2.865	2.87	2.87	2.87	2.87				2.87	2.87		2.87	2.78	2.78		
C318	Mini Project	2.6475	2.65	2.65	2.65	2.65				2.65	2.65	2.65	2.65	2.82	2.82	2.82	2.82
C401	Aircraft Stability And Control	2.1	2.1	2.1	2.18	2.09				2.09	2.1		2.1	2.09			2.09
C402	Computational Fluid Dynamics	2.26625	2.27	2.27	2.27								2.27	2.01		2.01	
C403	Control Engineering	2.065	2.08	2.2	0.95								2.12		2.12		2.12
C403	Heat And Mass Transfer	2.2225	2.22	2.2	2.22								2.22	1.96		1.97	
C404	Wind Tunnel Techniques	2.4875	2.44	2.47	2.47								2.47	2.07	2.07	2.07	
C406	Modelling And Analysis Lab	1.78125	1.78	1.82	1.68	1.58				1.78			1.8	2.09	2.19		
C407	Flight Simulation Lab	2.675	2.68	2.68	2.68	2.68				2.68	2.68		2.68	2.47			2.47
C408	Project Work Phase - 1	2.46875	2.47	2.47	2.33	2.47	2.47	2.47	2.46	2.46	2.44	2.44	2.46	2.77	2.77	2.77	2.77
C411	Flight Vehicle Design	1.3975	1.39	1.39		1.41	1.4			1.41			1.4	2.06	2.03	2.08	2.12
C412	Avionics	2.3975	2.4		2.4	2.4			2.4				2.4				2.3
C413	Project Work Phase - 2	2.84625	2.78	2.78	2.78	2.78	2.88	2.88	1.86	2.06	1.34	1.34	2.06	2.27	2.27	2.27	2.27
C414	Technical Seminar	2.265	2.27	2.28	2.33	2.36			2.21		2.21		2.21	2.4	2.4	2.4	2.4
C412	Internship	2.5625	2.56	2.56		2.28	2.29		2.31	3.13	2.31	2.29	2.29	2.85	2.85	2.85	2.85
<b>Average Total PO Attainment (Scale : 0-3) and ( % )</b>		<b>2.37</b>	<b>2.35</b>	<b>2.36</b>	<b>2.30</b>	<b>2.19</b>	<b>2.01</b>	<b>2.15</b>	<b>2.31</b>	<b>2.51</b>	<b>2.28</b>	<b>2.21</b>	<b>2.31</b>	<b>2.16</b>	<b>2.13</b>	<b>2.11</b>	<b>2.00</b>
		<b>79</b>	<b>78</b>	<b>79</b>	<b>77</b>	<b>73</b>	<b>67</b>	<b>72</b>	<b>77</b>	<b>84</b>	<b>76</b>	<b>74</b>	<b>77</b>	<b>72</b>	<b>71</b>	<b>70</b>	<b>67</b>


  
**Head of the Department**  
**Aeronautical Engineering**  
**Acharya Institute of Technology**  
**Bangalore - 560 107**



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF AERONAUTICAL ENGINEERING**  
**BENGALURU - 560107**

**Batch 2020 - 2024**

Name	PO1	PO2	PO3	PO2	PO3	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO2
Abhishek B Y	2	2	2	2	2	2	2	3	2	2	2	2	3	2	2	2
Aishwarya durgi	2	3	2	2	3	2	2	2	2	2	1	2	2	1	3	2
Ajay joshva	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3
Akhil eldhose	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Arjun Ramesh Pervaje	2	3	3	2	2	3	3	3	3	3	3	3	2	2	3	3
Arun Kumar S	2	2	2	1	2	3	3	3	3	2	3	3	2	2	3	3
Ashan ayoub paul	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2
Bharat Kumar PB	3	3	3	3	3	1	3	3	3	3	3	3	3	3	3	1
Dakshith Shekhar S	2	2	2	3	2	3	3	3	3	3	3	2	2	2	2	2
Deepika H B	1	1	1	1	1	1	1	1	1	2	1	1	2	2	2	2
haritejaswinig	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Harshita Bhardwaj	2	2	2	2	2	3	3	3	3	3	3	3	2	2	2	3
Harshitha G	2	2	2	2	2	1	2	1	2	2	1	1	1	2	2	2
K Sai Smrithi	2	2	2	3	2	3	3	3	3	2	3	3	3	3	3	3
Kotresh S V	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2
KRISHNA N B S	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2
Lingala srivasthava	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2
Lohith M Raykar	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
lokesh Aradhya MN	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Manohar MN	2	3	3	3	3	3	3	3	3	2	3	3	3	3	3	2

  
Aeronautical Engineering  
Acharya Institute of Technology  
Bangalore - 560 107

Muhammed irfan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
N MADAN TEJ	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nedya Poornamodan	2	3	3	2	3	3	3	2	3	3	3	3	3	3	3	3
Neha M P	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Niranjan M	3	3	2	3	2	3	3	3	3	2	3	3	3	2	3	2
Niranjan S	1	1	1	1	2	2	2	2	1	1	1	1	1	1	2	2
Paul kenneth S	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Pavan Kumar R	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Preetham SG	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Pruthvi M D	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2
Rahul K P	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3
RANJITHA M S	2	2	3	2	2	2	3	2	2	3	3	2	3	2	2	2
Sharath s s	1	2	1	1	1	2	1	1	1	3	1	1	1	1	1	2
SHWETA R PATIL	3	3	2	2	2	3	2	3	3	3	3	3	3	2	3	2
Soumya	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2
Subhijin	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2
Sudhatma Veerkumar Patil	3	3	3	3	3	3	3	3	2	3	3	3	3	2	2	2
Tejashwini P	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Thasvin V D	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2
Umair Sahil	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
UMESH B S	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	3
Vijay g m	2	2	2	2	2	2	2	2	1	3	3	3	2	2	2	2
Vinod C R	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2
Vishal Manoharsa Basava	3	3	2	2	2	2	3	3	2	2	3	2	2	3	3	2
	99	104	101	99	101	105	108	107	104	115	109	105	105	101	106	103
	2.25	2.3636	2.2955	2.25	2.2955	2.3864	2.4545	2.4318	2.3636	2.6136	2.4773	2.3864	2.3864	2.2955	2.4091	2.3409

Head of the Department  
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 Bangalore - 560 107



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF AERONAUTICAL ENGINEERING**  
**BENGALURU - 560107**

Batch 2020 - 2024

Academic Year	Sl No.	Event	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
2021-22	1	Workshop on fundamental of python programming	2.224	2.286	2.286	2.265	2.327		2.469	2.429		3.653		2.347	2.286	2.306		
	2	Educational vist to Airforce Technical College , AFTC, Jahahalli, Bangalore	2.327	2.367	2.347	2.408	2.388	2.429	2.551	2.51	2.408	3.878		2.49	2.429	2.469	2.469	2.469
	3	Technical Activity -Make and Fly - Paper plane	2.163	2.286	2.265	2.224	2.286	2.408	2.531	2.571	2.551	3.531	2.592	2.49	2.265	2.306		
	4	Workshop on 3 day skill development workshop on deonstration of IoT for aerospace Applications	2.143		2.163	2.245	2.224	2.306	2.429	2.388	2.347	3.449	2.327	2.265	2.204			2.367
2022-23	1	Knoweldge sharing session by AE's Alumini				2.60	2.40			1.78		2.30	1.76		1.95	1.82	2.02	1.78
	2	Visit to Sarkari Kiriya Prathamika school for NSS and AICTE Activities						2.34	2.60	1.67	2.70	2.03	2.03	1.78				2.01
	3	Intra Institutional Project Exhibition IIC	2.67	1.98	2.17	2.35	2.15	1.92				2.25		2.35	2.15	1.92	2.35	2.15
	4	BON VOYAGE CULTURAL ACTIVITY						1.90	1.98	2.15	1.83	2.55	2.05	2.03				
	5	Empowering students and Faculty for progressive Teaching and Research	1.90	2.15	1.90	2.15			2.33		1.90	2.15	1.08		0.93	1.08	1.10	1.10
2023-24	1	Digital Aerodynamics: Software Skills for Aerospace Engineers	2.12	2.16		2.20	2.18					2.21	2.29	2.18	2.20	2.24	2.35	2.31
	2	Workshop on Wings of Innovation: Scale Model Aircraft Design"	2.41	2.45	2.37	2.35	2.43	2.43		2.55	2.37		2.53	2.47	2.37	2.47		2.39
	3	Soar High: Glider Design and Flight Challenge	2.06	2.10	2.10	2.18	2.14	2.35		2.41	2.35		2.35	2.27	2.22	2.22	2.33	2.37
	4	Virtual Skies: Flight Simulation Experience	2.31	2.37	2.37	2.33	2.35	2.41		2.47	2.47		2.57	2.47		2.37		2.45
Total attainment			22.33	20.15	19.97	25.30	22.88	20.49	16.88	22.93	20.91	28.00	21.57	25.13	21.00	21.21	12.61	21.39
Average attainment			1.72	2.88	2.85	2.53	2.54	2.93	1.69	2.29	2.32	2.33	3.08	2.79	2.10	2.65	1.80	2.67


*[Signature]*  
**Head of the Department**  
**Aeronautical Engineering**  
**Acharya Institute of Technology**  
**Bangalore - 560 107**

**Acharya Institute of Technology**  
**Department of Aeronautical Engineering**  
**Attainment of PO & PSO**  
**2020 Batch**

Direct attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CIE+SEE+CES	2.37	2.35	2.36	2.3	2.19	2.01	2.15	2.31	2.51	2.28	2.21	2.31	2.16	2.13	2.11	2

Indirect attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Activities	1.72	2.88	2.85	2.53	2.54	2.93	1.69	2.29	2.32	2.33	3.08	2.79	2.10	2.65	1.80	2.67
Program exit survey	2.25	2.36	2.30	2.25	2.30	2.39	2.45	2.43	2.36	2.61	2.48	2.39	2.39	2.30	2.41	2.34
Activities (70 %)	1.20	2.02	2.00	1.77	1.78	2.05	1.18	1.60	1.63	1.63	2.16	1.95	1.47	1.86	1.26	1.87
Program exit survey (30 %)	0.68	0.71	0.69	0.68	0.69	0.72	0.74	0.73	0.71	0.78	0.74	0.72	0.72	0.69	0.72	0.70
Total indirect attainment	1.88	2.72	2.69	2.45	2.47	2.77	1.92	2.33	2.34	2.42	2.90	2.67	2.19	2.54	1.98	2.57

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Direct attainment (80%)	1.90	1.88	1.89	1.84	1.75	1.61	1.72	1.85	2.00	1.82	1.76	1.85	1.73	1.70	1.69	1.60
Indirect attainment (20%)	0.38	0.54	0.54	0.49	0.49	0.55	0.38	0.47	0.47	0.48	0.58	0.53	0.44	0.51	0.40	0.51
Total attainment	2.27	2.42	2.43	2.33	2.25	2.16	2.11	2.31	2.47	2.31	2.34	2.38	2.17	2.21	2.08	2.12

  
Head of the Department  
Aeronautical Engineering  
Acharya Institute of Technology  
Bangalore - 560 107



Department of Artificial Intelligence & Machine Learning  
Acharya Institute of Technology

Affiliated to VTU, Recognized by GOK and Approved by AICTE, New Delhi  
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PO Attainment for 2023 - 24 Passed Out Batch

COURSE CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
8MAT11	2.77	2.77										
8PHY12	2.15	2.10										2.30
8CIV14	1.86	1.85							1.90	1.90		1.90
8EGDL15	2.67	2.67	2.70		2.67	2.70				2.67		2.67
8ELE13	1.92	2.23	2.05	2.10					1.80	2.10		2.00
8ELEL17	2.73	2.86	2.77	2.80		2.40		2.40	2.80	2.56		2.66
8PHYL16	2.40	2.80	2.80									
8EGH18						2.10				2.10	2.10	2.10
8MAT21	1.30	1.30										
8ME25	1.84	2.10					1.80					1.90
8CHE22	2.20	2.00	2.00			2.00	2.00					2.20
8CPS23	1.81	1.95	1.70									
8ELN24	1.77	1.70										1.77
8CPL27	2.70	2.65	2.60									
8CHEL26	2.76	2.60				2.60	2.60	2.60		2.90		2.70
8EGH28						2.24				2.24	2.24	2.24
8MAT31	1.32	1.32	1.35	1.4	1.26	1.4	1.02	0.85	0	1.04	0.9	0.87
8CS32	2.9	2.9	2.9	2.9	2.9							2.9
8CS33	1.09	1.25	1.32	1.22	1.58	1.32	1.58					1.26
8CS34	1.48	1.49	1.51	1.51	1.51	1.48	1.48					1.48
8CS35	1.09	1.25	1.32	1.22	1.58	1.32	1.58					1.26
8CS36	1.34	1.42			1.13							1.34
8CSL37	1.6	1.6	1.6	1.6	1.6	1.6		1.6	1.6	1.6	1.6	1.6
8CSL38	1.5	1.5	1.5	1.5	1.5							1.5



# Department of Artificial Intelligence & Machine Learning

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8MAT41	1.39	1.4	1.33	1.4	1.33					1.32		1.35
8CS42	1.81	1.8	1.8	1.8	1.8							
8CS43	0.74	0.73	0.72	0.76	0.73				0.9	0.78	0.9	0.77
8CS44	1.71	1.7	1.7	1.73								
8CS45	1.88	1.6	1.93		2							2
8CS46	1.58	1.6	1.54	1.57								
8CSL47	1.5	1.5	1.5	1.5	1.5	1.5						1.5
8CSL48	2			2.1	2.1							2.1
8CS51	1.62	1.64	1.7	1.6	1.65	1.7			1.7	1.7	1.7	1.65
8AI52	1.78	1.76	1.76		1.77							1.78
8CS53	1.58	1.55	1.57	1.76	1.76	1.8			1.8	1.8	1.8	1.75
8CS54	1.04	1.02	1.2									
8AI55	1.43	1.42	1.42	1.52	1.38	1.8						1.12
8AI56	1.65	1.66			1.65							1.65
8AIL57	2.7	2.7	2.7	2.7	2.7							2.7
8CSL58	2.37	2.43	2.43	2.49	2.43					2.43		2.43
8AI61	1.99	1.98	2.03		1.96							1.96
8AI62	1.88	1.88	1.9	1.87								1.89
8AI63	0.86	0.84	0.86	0.82	0.86			1.2	0.8			0.82
8AI644	1.6	1.6	1.6	1.6	1.62	1.6	1.63		1.75	1.6	1.4	1.6
8AIL66	2.7	2.7	2.7	2.7	2.7	2.6		2.6	2.6	2.6	2.6	2.7
8AIL67	2.9	2.9	2.9	2.9	2.9	2.9		2.9	2.9	2.9	2.9	2.9
8AIL68	2.17	2.23	2.23	2.29	2.23					2.23		2.23
8AI71	1.8	1.82	1.82	1.8	1.8	1.8	2	2	1.8	1.8	1.8	1.82
8AI72	2.05	2.05	2.06	2.06	2.05				2.1	2.15	2.13	2.05
8AI733	1.98	2	1.97	1.9	1.9	1.87	1.7	1.87				1.95
8AI742	1.4	1.4	1.4	1.6								1.4
8AIL76	2.8	2.8	2.8	2.8	2.8	2.8		2.8	2.8	2.8	2.8	2.8



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.8AIP77	3	3	3	3	3	3	3	3	3	3	3	3
.8AI81	2.06	2.08	2.09		2.1							2.08
.8AI822	1.44	1.35	1.35	1.42	1.29							1.44
.8AIP83	3	3	3	3	3	3	3	3	3	3	3	3
.8AIS84	2.7	2.7	2.7	2.7				2.7	2.7	2.7		2.7
.8AII85	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Direct Attainment	1.39	1.36	1.32	1.21	1.23	0.67	0.33	0.52	0.61	0.71	0.55	1.29
Percentage of Direct Attainment	46.33	45.21	44.11	40.35	40.93	22.37	10.91	17.35	20.30	23.78	18.47	42.92
Indirect Attainment	1.40	1.37	1.33	1.22	1.24	0.68	0.35	0.53	0.61	0.71	0.56	1.30
Percentage of Indirect Attainment	46.80	45.73	44.37	40.66	41.42	22.70	11.60	17.54	20.37	23.82	18.70	43.30
30% of Direct Attainment	1.11	1.08	1.06	0.97	0.98	0.54	0.26	0.42	0.49	0.57	0.44	1.03
Percentage of Direct 30 Attainment	37.07	36.17	35.29	32.28	32.74	17.90	8.73	13.88	16.24	19.02	14.78	34.34
20% of Indirect Attainment	0.28	0.27	0.27	0.24	0.25	0.14	0.07	0.11	0.12	0.14	0.11	0.26
Percentage of Indirect 20 Attainment	9.36	9.15	8.87	8.13	8.28	4.54	2.32	3.51	4.07	4.76	3.74	8.66
Total Attainment	1.39	1.36	1.32	1.21	1.23	0.67	0.33	0.52	0.61	0.71	0.56	1.29
Percentage of Total Attainment	46.43%	45.31%	44.16%	40.41%	41.03%	22.44%	11.05%	17.39%	20.32%	23.79%	18.52%	43.00%



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**PSO Attainment for 2023 - 24 Passed Out Batch**

COURSE CODE	PSO1	PSO2	PSO3
18MAT11			
18PHY12			
18CIV14			2.59
18EGDL15			
18ELE13			
18ELEL17			
18PHYL16			2.74
18EGH18			
18MAT21			
18ME25			
18CHE22	2.01	2.3	
18CPS23	2.1		
18ELN24		2.6	
18CPL27			
18CHEL26			
18EGH28			2.59
18MAT31	1.36	1.25	1.21
18CS32	2.9	3	2.9
18CS33	0.75	1.21	1.7
18CS34	1.4	1.47	1.6
18CS35	2	1.32	1.18
18CS36	0.8	1.29	1.8
18CSL37	1.6	1.6	1.6



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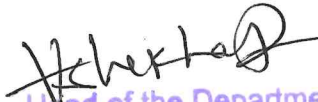
18CSL38	1.5	1.5	
18MAT41	1.36	1.4	1.46
18CS42	1.8	1.8	2
18CS43	0.74	0.75	0.76
18CS44	1.72	1.68	1.55
18CS45	1.9	1.83	1.8
18CS46	1.57	1.62	
18CSL47	1.5	1.5	1.5
18CSL48	2		2.1
18CS51	1.57	1.63	1.7
18AI52	1.78		
18CS53	1.42	1.76	1.8
18CS54	0.93	1.1	1
18AI55	1.42	1.4	
18AI56	1.65	1.65	1.65
18AIL57	2.7	2.7	
18CSL58	2.49	2.49	2.43
18AI61	1.98	1.98	1.96
18AI62	1.77	1.8	1.8
18AI63	0.93	1.1	1
18AI644	1.67		1.6
18AIL66	2.7	2.6	2.7
18AIL67	2.9	2.9	2.9
18AIL68	2.29	2.29	2.23
18AI71	1.77	1.8	1.8
18AI72	2.03	2.05	2.05



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18AI733	1.8	1.93	2.05
18AI742	1.4	1.4	
18AIL76	2.8	2.8	2.8
18AIP77	3	3	3
18AI81	2.06	2.08	2.08
18AI822	1.35	0.9	1.29
18AIP83	3	3	3
18AIS84	2.7	2.7	
18AII85	2.9	2.9	2.9
Direct Attainment	1.86	1.89	1.92
Percentage of Direct Attainment	62.08	62.98	63.85
Indirect Attainment	1.88	1.91	1.94
Percentage of Indirect Attainment	62.80	63.57	64.81
80% of Direct Attainment	1.49	1.51	1.53
Percentage of Direct PO Attainment	49.66	50.39	51.08
20% of Indirect Attainment	0.38	0.38	0.39
Percentage of Indirect PO Attainment	12.56	12.71	12.96
Total Attainment	1.87	1.89	1.92
Percentage of Total Attainment	62.22%	63.10%	64.04%

  
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### PO Assessment by Direct Attainment for all the Courses (2020-24)

Course ID	Course code	POs											
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	18MAT11	1.3	1.3										
C102	18PHY12	1.7	1.7										1.7
C103	18ELE13	1.35	1.35			1.35	1.35		1.35		1.35	1.35	
C104	18CIV14	1.6	1.6					1.6					1.6
C105	18EGDL15	1.15	1.15										1.15
C106	18PHYL16	2.35	2.35	2.35		2.35	2.35			2.35			2.35
C107	18ELEL17	2.75	2.75	2.75									
C108	18EGH18	0.9	0.9										
C111	18MAT21	1.75	1.75	1.75			1.75	1.75					
C112	18CHE22	1.35	1.35	1.35									1.35
C113	18CPS23	1.9	1.9	1.9		1.9				1.9	1.9		1.9
C114	18ELN24	1.34	1.4	1.47									1.11
C115	18ME25	3	3	3	3								
C116	18CHEL26	2.95	2.95				2.95	2.95	2.95		2.95		2.95
C117	18CPL27	1.92	1.83		1.85								2.17
C118	18EGH28	1.49	1.54		1.42								1.53
C201	18BT31	2.3	2.3										2.25
C202	18BT32	2.67	2.6	2.61	2.59	2.63	2.58	2.67	2.67	2.64	2.67		2.62
C203	18BT33	2.12	2.13	2.17	2.1						2.23		2.23
C204	18BT34	0.56	0.63		0.78		0.78			0.67	0.72		0.62



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C205	18BT35	0.89	1.12		1.12	0.89	0.89						
C206	18BT36						1						
C207	18BTL37	2.6	2.8	2.5	2.5	2.84						2.67	2.9
C208	18BTL38	2.52	3		3	3				3	3		2.17
C211	18BT41	2.52	3		3	3				3	3		2.17
C212	18BT42	2.52	3		3	3				3	3		2.17
C213	18BT43	2.29	2.4	2.27	2.31		2.31						2.4
C214	18BT44	2.3	2.41	2.33	2.4	2.44		2.13		2.2			2.4
C215	18BT45	2.12	2.23	2.03	2.15		2.37		2.37	2.37	2.37		2.2
C216	18BT46	2.52	3		3	3				3	3		2.17
C217	18BTL47	1.73	2.03	1.79	2.03	2.03	1.67		1.97	1.79	1.3		1.97
C218	18BTL48	2.4	2.6	2.4	2.5	2.7						2.3	2.78
C301	18BT51	1.71	1.58	1.43		1.97				2.3	2.3		
C302	18BT52	2.52	3		3	3				3	3		2.17
C303	18BT53	1.71	1.58	1.43		1.97				2.3	2.3		
C304	18BT54	1.71	1.58	1.43		1.97				2.3	2.3		
C305	18BT55	0.64	0	0.83	0.54	0.69	0.63						
C306	18BT56	1.71	1.58	1.43		1.97				2.3	2.3		
C307	18BTL57	1.71	1.58	1.43		1.97				2.3	2.3		
C308	18BTL58	2.5	2.66	2.6	2.6	2.74						2.5	2.8
C311	18BT61	2.52	3		3	3				3	3		2.17



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C312	18BT62	1.6	1.5	1.4		1.2					1.2		1.2
C313	18BT63	1.71	1.58	1.43		1.97				2.3	2.3		
C314	18BT641	2.16	1.7	1.7	1.7	1.7	1.7			1.97	2.5		1.7
C315	18BT653	1.71	1.58	1.43		1.97				2.3	2.3		
C316	18BT66	2.6	2.5	3	2.9						3		2.8
C317	18BT67	2.8	2.6	1.82	2.7	2.71			1.93		1.4		2.8
C318	18BT68	1.68	2.17	1.7						1.9		1.5	
C401	18BT71	2.52	3		3	3				3	3		2.17
C402	18BT72	2.52	3		3	3				3	3		2.17
C403	18BT731	1.9	2			2.1	2.1		2.1		2.1	2	1.9
C404	18BT741	2.57			2.37		2.46		2.46	2.5	2.5	2.57	2.43
C405	18BT751	1.8	1.6	1.5		2				2.3	2.3		
C406	17BTL76	1.71	1.58	1.43		1.97				2.3	2.3		
C407	18BTP77	2.03	2.28	1.98		2.58	2.58	2.58	2.1	2.58	2.29	2.58	2.24
C411	18BT81		2.33		2.2		2.51	2.53	2.27			2.47	2.33
C412	18BT821	1.69	1.68	2.17	1.7						1.9		1.5
C413	18BTP83	2.03	2.28	1.98		2.58	2.58	2.58	2.1	2.58	2.29	2.58	2.24
C414	18BTS84	1.71	1.58	1.43		1.97				2.3	2.3		
C415	18BT85	2.6	2.4	2.5		2.6	2.4	2.8	2.7	2.6	2.8	2.4	2.5
<b>Sum of POs</b>		114.9											
		3	117.99	68.72	67.46	81.76	36.96	21.59	26.97	75.05	84.47	24.92	83.98



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<b>Number of Subjects mapped</b>	58	58	36	29	36	19	9	12	31	36	11	40
<b>Direct Attainment of POs (A)</b>	1.98	2.03	1.90	2.32	2.27	1.94	2.39	2.24	2.42	2.34	2.26	2.09

**PSO Assessment by Direct Attainment for all the Courses**

Course ID	Course code	PSOs		
		PSO1	PSO2	PSO3
C101	18MAT11			
C102	18PHY12			
C103	18ELE13			
C104	18CIV14			
C105	18EGDL15			
C106	18PHYL16			
C107	18ELEL17			
C108	18EGH18			
C111	18MAT21			
C112	18CHE22			
C113	18CPS23			
C114	18ELN24			
C115	18ME25			
C116	18CHEL26			



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C117	18CPL27			
C118	18EGH28			
C201	18BT31	2.93	2.93	2.93
C202	18BT32	2.62		2.6
C203	18BT33	2.1		2.07
C204	18BT34	0.63		
C205	18BT35	0.8		
C206	18BT36	1.4		1.4
C207	18BTL37	2.7		
C208	18BTL38	2.58		3
C211	18BT41	0.63		
C212	18BT42	0.63		
C213	18BT43	2.31	2.4	
C214	18BT44	2.25	2.6	
C215	18BT45	2.13	2.19	2.18
C216	18BT46	2.62		2.6
C217	18BTL47	1.83		
C218	18BTL48	2.28	2.58	2.48
C301	18BT51	2.28	2.58	2.48
C302	18BT52	2.93		2.96
C303	18BT53	2.62		2.6



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C304	18BT54	2.6		2.38
C305	18BT55	0.75		0.69
C306	18BT56	2.62		2.6
C307	18BTL57	2.28	2.58	2.48
C308	18BTL58	2.62		2.6
C311	18BT61	2.65		2.7
C312	18BT62	1.5		1.7
C313	18BT63	2.28	2.58	2.48
C314	18BT641	2.02		1.7
C315	18BT653	2.28	2.58	2.48
C316	18BTL66	1	2.9	3
C317	18BTL67	2.45	2.56	2.49
C318	18BTMP68	2.28	2.58	2.48
C401	18BT71	2.45	2.58	2.48
C402	18BT72	2	2	1.9
C403	18BT731	2	2	1.9
C404	18BT741	2.47	2.5	2.47
C405	18BT751	2.28	2.58	2.48
C406	18BTL76	2.28	2.58	2.48
C407	18BTP77	2.28	2.58	2.48
C411	18BT81	2.37	2.33	2.5



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C412	18BT821	2.5	2.4	2.6
C413	18BTP83	2.28	2.58	2.48
C414	18BTS84	2.28	2.58	2.48
C415	18BTI85	2.28	2.58	2.48
<b>Sum of PSOs</b>		<b>93.07</b>	<b>60.35</b>	<b>85.81</b>
<b>Number of Subjects mapped</b>		<b>44</b>	<b>24</b>	<b>36</b>
<b>Direct Attainment of PSOs (A)</b>		<b>2.113</b>	<b>2.514</b>	<b>2.383</b>

### PO-PSO Assessment by Indirect Attainment

**Indirect Assessment:** The indirect assessment values for PO and PSO attainment is based on **exit survey (50%), course end survey (50%)**


Indirect attainment of POs (A) and PSOs (B).	POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Through Exit survey	2.41	2.50	2.55	2.45	2.50	2.59	2.68	2.64	2.77	2.64	2.50	2.68
Through course end survey	1.53	1.37	1.31	1.52	1.59	2.01	2.5	2.14	1.14	1.21	1.71	1.97
<b>Indirect attainment (B)</b>	1.97	1.94	1.93	1.99	2.05	2.31	2.59	2.39	1.96	1.93	2.11	2.33



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Indirect attainment of POs (A) and PSOs (B).	PSOs		
	PSO1	PSO2	PSO3
Through Exit survey	2.50	2.55	2.68
Through course end survey	2.09	2.13	2.04
<b>Indirect attainment (B)</b>	2.29	2.34	2.36

  
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**Overall attainment of POs and PSOs**

The overall attainment for PO and PSO assessments is calculated using a weightage of 80% to direct and 20% to indirect evaluation.

**PO/PSO attainment of batch 2020-2024**

Attainment through	POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct assessment (A)	1.98	2.03	1.90	2.32	2.27	1.94	2.39	2.24	2.42	2.34	2.26	2.09
Indirect assessment (B)	1.97	1.94	1.93	1.99	2.05	2.31	2.59	2.39	1.96	1.93	2.11	2.33
Final PO attainment (80% A + 20% B)	1.978	2.012	1.906	2.254	2.226	2.014	2.43	2.27	2.328	2.258	2.23	2.138

Attainment through	PSOs		
	PSO1	PSO2	PSO3
Direct assessment (A)	2.113	2.514	2.383
Indirect assessment (B)	2.29	2.34	2.36
Final PSO attainment (80% A + 20% B)	2.1484	2.4792	2.3784



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### PO Attainment for 2023 - 24 Passed Out Batch

Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
18MAT11	Calculus and Linear Algebra	1.89	1.89										
18PHY12	Engineering Physics	2.13	1.9										2.23
18ELE13	Basic Electrical Engineering	2.19	2.26	2.21	2.1		2.03		2.03	2.18	2.06		2.15
18CIV14	Elements of Civil Engineering	2.01	2							2.17	2.17		2.17
18EDGL15	Engineering Graphics	2.21	2.21	2.17	2.21		2.2				2.21		2.21
18PHYL16	Engineering Physics Lab	2.7	2.6	2.7									
18ELE17	Basic Electrical Engineering Lab	2.77	2.87	2.81	2.83		2.43		2.43	2.87	2.59		2.7
18EGH18	Technical English-I						2.94				2.94	2.94	2.94
18MAT21	Advanced Calculus and Numerical Methods	2.26	2.26										
18CHE22	Engineering Chemistry	2.05	2.1	2.1			2.1	2.1					2.05
18CPS23	Computer Concepts and Programming	2.1	2.12	2.2									
18ELN24	Basic Electronics	1.98	1.9	1.99									
18ME25	Elements of Mechanical Engineering	2.59	2.67					2.57					2.6
18CHEL26	Engineering Chemistry Lab	2.24	1.8				1.8	1.8	1.8		2.4		2.3
18CPL27	Computer Programming Lab	2.2	2.1	2.2									
18EGH18	Technical English - II						2.7				2.7	2.7	2.7
18MAT31	Transform Calculus, Fourier Series	1.55	1.55										
18CS32	Data Structures and Applications	1.69	1.49	1.44									
18CS33	Analog and Digital Electronics	1.88	1.79	1.65	1.93								
18CS34	Computer Organization	0.97	1.02	1.14		1.33	1.33		1.33				
18CS35	Software Engineering	1.61	1.61	1.64		1.62				1.77			
18CS36	Discrete Mathematical Structures	1.84	1.84										
18CSL37	Analog and Digital Electronics Laboratory	2.63	2.73	2.47	1.45				2.5		2.5		
18CSL38	Data Structures Laboratory	2.6	2.59	2.55									
18MAT41	Complex Analysis, Probability and Statistical Methods	1.86	1.86										
18CS42	Design and Analysis of Algorithms	2.1	2.21	1.89									



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18CS43	Operating Systems	1.9	1.9	1.8		1.9							1.9
18CS44	Microcontroller and Embedded Systems	2.63	2.73	2.47	1.45				2.5		2.5		
18CS45	Object Oriented Concepts	1.62	1.63	1.8		1.75							1.75
18CS46	Data Communication	0.94	1.36	1.5	1.55	1.45							
18CSL47	Design and Analysis of Algorithm Laboratory	2.68	2.69	2.68									
18CSL48	Microcontroller and Embedded Systems Laboratory	2.1	2.2	1.98									
18CS51	Management, Entrepreneurship for IT industry	2.16	2.16	2.13	2.1	2.15	2.1			2.1	2.1	2.1	2.15
18CS52	Computer Networks and security	1.74	1.68	1.75	1.71	1.57	1.75	1.75					
18CS53	Database Management System	1.29	1.32	1.41	1.34	1.45	1.65			1.65	1.65	1.65	1.38
18CS54	Automata theory and Computability	1.48	1.48	1.7									
18CS55	Application Development using Python	1.35	1.25			1.23		1.6		1.2			
18CS56	Unix Programming	2.18	2.13	2.13	2.14	2.2							2.18
18CSL57	Computer Network Laboratory	2.68	2.66	2.68	2.67								
18CSL58	DBMS Laboratory with mini project	1.6	1.6	1.6	1.6	1.6				1.6	1.6	1.6	1.6
18CS61	System Software and Compilers	1.95	1.75	1.78									
18CS62	Computer Graphics and Visualization	1.71	1.75	1.78		1.77							
18CS63	Web Technology and its applications	2.1	2.1	2.1	2.1	2.2	2.1						2.1
18CS643	Cloud Computing and its Applications	1.6	1.6	1.6	1.6	1.6						1.6	1.6
18CS645	System Modelling and Simulation	2.4	2.3			2.5							2.5
18CSL66	System Software Laboratory	3	3	3	3	3					2.8		
18CSL67	Computer Graphics Laboratory with mini project	2.77	2.77	2.94	2.77	2.77				2.94	2.97	2.9	2.97
18CSMP68	Mobile Application Development	2.82		2.82		2.82					2.82	2.82	2.82
18CS71	Artificial Intelligence and Machine Learning	1.47	1.43	1.27	1.48	1.46					1.7		1.53
18CS72	Big Data Analytics	1.4	1.4	1.4	1.4	1.4	1.4			1.4	1.4		0.2
18CS734	User Interface Design	1.8	2.1	2.12									
18CS741	Digital Image Processing	2.2	2.2	2.2		2.2							
18CS742	Network management	2.2	2.3			2.3		1.8		2.3	2.3		



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18CS744	Cryptography	2.2	2.2						2.2				2.2
18CSL76	Artificial Intelligence and Machine Learning Laboratory	2.45	2.45		2.45	2.45					2.1		2.45
18CSP77	Project Work Phase – 1	2.9	2.9	2.9	2.9	2.9	2.9		2.9	2.9	2.9	2.9	2.9
18CS81	Internet of Things	1.85	1.9	2	1.9	1.8			1.9	1.9	1.9		
18CS823	NoSQL Database	2.16	2.16	2.13	2.1	2.15	2.1			2.1	2.1	2.1	2.15
18CSP83	Project Work Phase –2	2.8	2.8	2.8	2.8	2.8	2.8		2.8	2.33	1.4	2.8	2.8
18CSS84	Technical Seminar					2.6	2.7		2.34	2.8	1.5	2.8	2.5
18CSI85	Internship					2.4	2.6		2.8	2.6	1.5	2.8	2.5
<b>Total PO Attainment</b>		<b>118.2</b>	<b>115.3</b>	<b>89.63</b>	<b>49.58</b>	<b>59.37</b>	<b>37.03</b>	<b>11.62</b>	<b>27.53</b>	<b>36.81</b>	<b>54.81</b>	<b>31.71</b>	<b>66.23</b>
<b>Average PO Attainment in Scale of 3</b>		<b>1.94</b>	<b>1.89</b>	<b>1.47</b>	<b>0.82</b>	<b>0.98</b>	<b>0.61</b>	<b>0.2</b>	<b>0.46</b>	<b>0.61</b>	<b>0.9</b>	<b>0.52</b>	<b>1.09</b>
<b>Direct Attainment - 80%</b>		<b>1.56</b>	<b>1.52</b>	<b>1.18</b>	<b>0.66</b>	<b>0.79</b>	<b>0.49</b>	<b>0.16</b>	<b>0.37</b>	<b>0.49</b>	<b>0.72</b>	<b>0.42</b>	<b>0.88</b>
<b>Average Direct PO Attainment in %</b>		<b>52</b>	<b>50.67</b>	<b>39.34</b>	<b>22</b>	<b>26.34</b>	<b>16.34</b>	<b>5.34</b>	<b>12.34</b>	<b>16.34</b>	<b>24</b>	<b>14</b>	<b>29.34</b>
<b>Indirect Attainment in Scale of 3</b>		<b>2.5</b>	<b>2</b>	<b>1.5</b>	<b>1</b>	<b>1.4</b>	<b>1.8</b>	<b>1.5</b>	<b>1.5</b>	<b>1.2</b>	<b>2.2</b>	<b>1.6</b>	<b>1.3</b>
<b>Indirect Attainment - 20 %</b>		<b>0.5</b>	<b>0.4</b>	<b>0.3</b>	<b>0.2</b>	<b>0.28</b>	<b>0.36</b>	<b>0.3</b>	<b>0.3</b>	<b>0.24</b>	<b>0.44</b>	<b>0.32</b>	<b>0.26</b>
<b>Average Indirect PO Attainment in %</b>		<b>16.67</b>	<b>13.34</b>	<b>10</b>	<b>6.67</b>	<b>9.34</b>	<b>12</b>	<b>10</b>	<b>10</b>	<b>8</b>	<b>14.67</b>	<b>10.67</b>	<b>8.67</b>
<b>Total Attainment</b>		<b>2.06</b>	<b>1.92</b>	<b>1.48</b>	<b>0.86</b>	<b>1.07</b>	<b>0.85</b>	<b>0.46</b>	<b>0.67</b>	<b>0.73</b>	<b>1.16</b>	<b>0.74</b>	<b>1.14</b>
<b>Total Attainment in %</b>		<b>68.67</b>	<b>64</b>	<b>49.34</b>	<b>28.67</b>	<b>35.67</b>	<b>28.34</b>	<b>15.34</b>	<b>22.34</b>	<b>24.34</b>	<b>38.67</b>	<b>24.67</b>	<b>38</b>



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**PSO Attainment for 2023 - 24 Passed Out Batch**

Course Code	Course Title	PSO 1	PSO 2	PSO 3
18MAT11	Calculus and Linear Algebra			
18PHY12	Engineering Physics			
18ELE13	Basic Electrical Engineering			2.74
18CIV14	Elements of Civil Engineering			
18EDGL15	Engineering Graphics			
18PHYL16	Engineering Physics Lab			
18ELE17	Basic Electrical Engineering Lab			2.56
18EGH18	Technical English-I			
18MAT21	Advanced Calculus and Numerical Methods			
18CHE22	Engineering Chemistry			
18CPS23	Computer Concepts and Programming	2	2.4	
18ELN24	Basic Electronics	2.21		
18ME25	Elements of Mechanical Engineering		2.5	
18CHEL26	Engineering Chemistry Lab			
18CPL27	Computer Programming Lab	1.89	1.69	
18EGH18	Technical English - II			
18MAT31	Transform Calculus, Fourier Series			
18CS32	Data Structures and Applications	1.8	1.7	1.3
18CS33	Analog and Digital Electronics	1.69	1.6	
18CS34	Computer Organization	1	0.94	1.29
18CS35	Software Engineering	1.37	1.4	1.54
18CS36	Discrete Mathematical Structures			
18CSL37	Analog and Digital Electronics Laboratory	2.4	2.57	
18CSL38	Data Structures Laboratory	2.55	2.6	2.9
18MAT41	Complex Analysis, Probability and Statistical Methods			
18CS42	Design and Analysis of Algorithms	2.29	2.4	
18CS43	Operating Systems	1.7	1.81	2.01



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18CS44	Microcontroller and Embedded Systems	2.42	2.7	
18CS45	Object Oriented Concepts	1.65	1.95	1.8
18CS46	Data Communication	1.23		
18CSL47	Design and Analysis of Algorithm Laboratory	2.48	2.46	2.5
18CSL48	Microcontroller and Embedded Systems Laboratory	2.4		
18CS51	Management, Entrepreneurship for IT industry	2.1	2.29	2.28
18CS52	Computer Networks and security	1.86	1.6	
18CS53	Database Management System	1.39	1.55	1.5
18CS54	Automata theory and Computability	1.13	1.3	1.2
18CS55	Application Development using Python	1.6	1.48	
18CS56	Unix Programming	2.05		2.44
18CSL57	Computer Network Laboratory	2.58	2.4	
18CSL58	DBMS Laboratory with mini project	1.9	1.78	1.3
18CS61	System Software and Compilers	1.65	1.6	
18CS62	Computer Graphics and Visualization	1.55	1.6	1.4
18CS63	Web Technology and its applications	2.4		2.3
18CS643	Cloud Computing and its Applications	1.7	1.88	
18CS645	System Modelling and Simulation	2.3	2.4	2.4
18CSL66	System Software Laboratory	3	2.9	3
18CSL67	Computer Graphics Laboratory with mini project	2.52	2.97	2.76
18CSMP68	Mobile Application Development	2.94	2.6	2.4
18CS71	Artificial Intelligence and Machine Learning	1.55	1.4	1.45
18CS72	Big Data Analytics	1.7	1.42	
18CS734	User Interface Design	2	2	2
18CS741	Digital Image Processing	2	2.4	
18CS742	Network management	2.4		
18CS744	Cryptography	2.3	2.05	
18CSL76	Artificial Intelligence and Machine	2.6	2.9	



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	Learning Laboratory			
18CSP77	Project Work Phase – 1	2.75	2.74	2.7
18CS81	Internet of Things	1.8		1.9
18CS823	NoSQL Database	2.5	2.6	2.5
18CSP83	Project Work Phase –2	2.7	2.5	2.6
18CSS84	Technical Seminar	2.9	2.7	2.7
18CSI85	Internship	2.7	2.6	2.7
<b>Total PSO Attainment</b>		<b>93.44</b>	<b>82.18</b>	<b>60.03</b>
<b>Average PSO Attainment in Scale of 3</b>		<b>1.54</b>	<b>1.35</b>	<b>0.99</b>
<b>Direct Attainment - 80 %</b>		<b>1.24</b>	<b>1.08</b>	<b>0.8</b>
<b>Average Direct PSO Attainment in %</b>		<b>41.34</b>	<b>36</b>	<b>26.67</b>
<b>Indirect Attainment in Scale of 3</b>		<b>2.3</b>	<b>1.98</b>	<b>2.01</b>
<b>Indirect Attainment - 20 %</b>		<b>0.46</b>	<b>0.4</b>	<b>0.41</b>
<b>Average Indirect PSO Attainment in %</b>		<b>15.34</b>	<b>13.34</b>	<b>13.67</b>
<b>Total Attainment</b>		<b>1.7</b>	<b>1.48</b>	<b>1.21</b>
<b>Total PSO Attainment in %</b>		<b>56.67</b>	<b>49.34</b>	<b>40.34</b>

*Rajiv Reddy*

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**ACHARYA INSTITUTE OF TECHNOLOGY**  
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**Department of Electrical and Electronics Engineering**

**Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2020**

Graduation Period: 2020-to-2024		Scheme		2018		No.of Courses : 57										
CID	Title of Course	Programme Outcome(PO)s												PSOs		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101	CALCULUS AND LINEAR	2.54	1.98													
C102	ENGINEERING CHEMISTRY			1.20	1.00				0.60	1.00						
C103	BASIC ELECTRONICS	1.90	2.40													
C104	ENGINEERING CHEMISTRY LAB	1.80	2.20				1.50	1.20					2.60			
C105	TECHNICAL ENGLISH-1						0.80				1.20	0.80	1.80			
C106	ADVANCED CALCULUS AND NUMERICAL METHODS	2.12	1.90													
C107	Engineering Physics	2.60	2.50										2.60			
C108	BASIC ELECTRICAL	2.70	2.40	1.00	1.20					1.20		1.20	1.95			
C111	ENGINEERING GRAPHICS	2.20	1.80	1.00		0.80	1.00				0.80		1.86			
C112	Engineering Physics LAB	1.89	2.10	0.90												
C113	C Programming for Problem	2.30	2.30	1.00												
C114	BASIC ELECTRICAL	2.83	2.86	2.83	2.80		2.80		2.80	2.80	2.80		2.82	2.83		2.82
C115	Elements of mechanical engineering	1.60		1.00												
C201	Transform Calculus, Fourier Series	1.60	1.80													
C202	Electric Circuit Analysis	1.60	1.90							1.20						
C203	Transformers and Generators	1.80	1.80				1.90									
C204	Analog Electronic Circuits	1.90	1.70							1.00				2.00		
C205	Digital System Design	2.70	1.90	2.20										1.30		
C207	Electrical Machines Laboratory -1	2.80	2.33	0.90	0.80					1.50						
C208	Electronics Laboratory	2.00	2.21			1.20			1.40							
C211	Complex analysis, probability and	1.90	1.60													2.00

C212	Power Generation and Economics	1.86	1.90	2.40	1.70		2.30	1.40		2.40			2.46	2.60		
C213	Transmission and Distribution	2.05	1.94	1.70				2.10					2.34	2.10	2.10	2.10
C214	Electric Motors	2.20	1.87							1.20				0.80	0.70	
C215	Electromagnetic Field Theory	2.00	2.00	1.20	2.00	1.00		0.70			0.80		1.89	1.00	1.20	0.90
C216	Operational Amplifiers and Linear	1.59	1.62	1.63										1.62		
C217	Electrical Machines Laboratory -2	2.00	1.80	1.00	1.00	1.20	0.80	0.60	1.00	2.00	0.80			1.20	1.00	1.50
C218	Op- amp and Linear ICs	2.57	2.60	2.60	2.54		2.40			2.60	2.40				2.60	2.57
C301	Management and Entrepreneurship	1.8	2.1	3.0		2.0	1.0	1.0	2.0			2.0	1.0			
C302	Microcontroller	1.81	1.00	2.00		1.00	0.60	0.60		0.70			1.78		0.70	0.80
C303	Power Electronics	1.90	2.10	1.90								1.80			1.60	1.70
C304	Signals and Systems	2.00	2.50	2.30	1.00	1.60							2.56		1.60	
C305	Electrical Machine Design	1.70	1.60	2.10										1.30		
C306	High Voltage Engineering	1.90	0.70		0.60			1.16					2.66	0.74		
C307	Microcontroller Laboratory	2.3	2.3	1.0		0.9	0.8	1.0		0.7			0.7			
C308	Power Electronics Laboratory	2.10	1.80	1.20	1.80	1.80	0.90		1.75	1.80	2.00			1.10	1.00	1.00
C309	Environmental Studies(EVS)	2.6	2.1	2.3					2.1	2.4				2.1		
C311	Control Systems	2.5	2.5			2.6				2.6					2.5	
C312	Power System Analysis – 1	2.00	1.80	0.80		0.50	1.00							1.20		
C313	Digital Signal Processing	2.47	2.25	2.32											2.40	
C314	Professional Elective -1 Renewable Energy Resources	2.10	2.30		2.20	2.20	2.30							2.17		
C315	Control System Laboratory	2.70	2.43	2.66	2.10								2.20	2.40		
C316	Digital Signal Processing	2.00		2.50			2.00	2.00	2.50					2.00		
C317	Mini-project	2.80	2.80	2.20	2.70			2.60						2.10	2.30	2.10
C318	Internship	2.60	2.40	2.80	2.34	2.10	2.10	2.30		1.90	2.30	1.80	2.00	2.30		
C401	Power System Analysis – 2	2.50	1.75				1.20	1.60						2.50	1.70	
C402	Power System Protection	2.80	2.60		2.56			2.50					2.10	2.20		
C403	Professional Elective - 2	2.00	1.80				2.10	1.70								
C404	Professional Elective - 3	2.30	1.80	2.60									2.50		1.30	1.10
C405	PSS laboratory	2.90	2.60			2.50										
C406	Relay & HV lab	2.00	1.90								1.80		1.89	1.50	1.00	

C407	Project Work Phase - 1	2.54	2.54	2.54	2.54	2.54	2.31		2.54	2.54	2.54		2.54	2.22	2.22	2.22
C411	Power System Operation and	2.10	1.70	1.80	1.65	1.40	1.30	1.40					2.10			
C412	Professional Elective - 4 Electrical	2.50	2.60	2.10	2.30						2.45		2.10	2.30		
C412	Professional Elective -4 Power	2.10	2.50			2.45	2.36	2.40	2.00			2.60	1.82	1.77		
C413	Project Work Phase - 2	2.50	2.80	2.65	2.55	2.70	2.70		2.20	2.20	2.20		2.23	2.22	2.22	2.22
C414	Technical Seminar	2.70	2.00	1.00	1.20	0.70	0.80			1.20	0.60	0.70	2.46			
Total PO Attainment		121.3	110.7	64.4	38.6	31.2	37.0	26.3	20.9	33.0	22.7	10.9	53.0	47.6	28.1	23.0
Average PO Attainment in Scale of 3		2.1	1.9	1.1	0.7	0.5	0.6	0.5	0.4	0.6	0.4	0.2	0.9	0.8	0.5	0.4
<b>DIRECT ATTAINMENTS – 80% (CIE + SEE + CES)</b>		1.7	1.6	0.9	0.5	0.4	0.5	0.4	0.3	0.5	0.3	0.2	0.7	0.7	0.4	0.3
Average Direct PO Attainment in %		56.7	51.8	30.1	18.0	14.6	17.3	12.3	9.8	15.4	10.6	5.1	24.8	22.3	13.2	10.8
Average Indirect PO Attainment in Scale of 3		2.8	2.9	2.7	2.6	2.5	2.2	2.0	2.3	2.7	2.5	2.2	2.4	2.2	2.3	2.4
<b>INDIRECT ATTAINMENTS – 20% (Activities + Exit Survey)</b>		0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.5
Average Indirect PO Attainment in %		18.5	19.1	17.7	17.4	16.9	14.5	13.6	15.0	17.7	16.8	14.6	15.9	14.7	15.0	16.3
<b>TOTAL ATTAINMENT</b>		2.3	2.1	1.4	1.1	0.9	1.0	0.8	0.7	1.0	0.8	0.6	1.2	1.1	0.8	0.8
<b>TOTAL ATTAINMENT in %</b>		75.3	70.9	47.8	35.4	31.5	31.8	25.9	24.8	33.2	27.4	19.7	40.6	37.0	28.2	27.0

  
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SUBJECTS	CO-PO ATTAINMENT 2020-2024 BATCH												No. of Courses=46		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
18MAT31	2.3	2.3													
18EC32	1.08	1.23										1.08	1.3		
18EC33	2.37	2.37							2.37	2.37		2.37		1.32	
18EC34	0.89	0.79	1.05										0.95		
18EC35	2.33	2.33			2.33				2.33	2.33		2.33		1.44	
18EC36	1.72	1.69							1.72	1.72		1.72		2.33	
18ECL37	2.38	2.4	2.3	2.57	2.57	2.13		1.7	2.57	2.05		2.25		0.72	
18ECL38	2.35	2.37	2.27	2.53	2.53	2.1		1.67	2.53	2.01		2.21		1.6	1.6
18MAT41	1.33	1.33													
18EC42	1.72	1.69							1.72	1.72		1.72			2.4
18EC43	2.38	2.4	2.3	2.57	2.57	2.13		1.7	2.57	2.05		2.25			2.4
18EC44	2.35	2.37	2.27	2.53	2.53	2.1		1.67	2.53	2.01		2.21			2.4
18EC45	1.33	1.33										1.31	2.16	2.19	2.4
18EC46	2.14	2.43			2.2				2.14	2.2		2.14	2.47		2.47
18ECL47	2.68	2.68	2.68	2.77	2.77			2.4	2.68	2.6				1.53	
18ECL48	2.66	2.67	2.65	2.69	2.7	2.6		2.52	2.7	2.56		2.66			2.02
18ES51	2.62								2.62		2.62	2.62	2.1		2
18EC52	2.2	2.2	2.17	2.17					2.2	2.2		2.2		1.3	
18EC53	2.14	2.43			2.2				2.14	2.2		2.14			2.4
18EC54	2.48	2.45	2.38						2.47	2.47		2.47			1.9
18EC55	2.14	2.43			2.2				2.14	2.2		2.14			2.4
18EC56	2.35	2.5	2.5	1.9	2.43										1.9
18ECL57	2.27	2.27	2.27	2.17	2.17			2.4	2.27	2.37					2.4
18ECL58	2.14	2.43			2.2				2.14	2.2		2.14		1.9	
18EC61	1.2	1.1	0.9	0.7	1.2				1.2	1.2		1.2		1.2	
18EC62	1.53	1.6			1.4				1.53	1.4		1.53		2.4	
18EC63	2.01	2.02	2.03						2.02	2.02		2.02			1.84
18EC643	1.5	1.5	1.5											2.37	2.37
18EC646	1.2	1.1	0.9	0.7	1.2				1.2	1.2		1.2	2.38		
18ECL66	2.87	2.87	2.87		2.87				2.87	2.87		2.87	2.35		

18ECL67	2.7	2.7	2.7		2.7				2.7	2.7		2.7		2.68	
18ECMP68	2.1	2.1	2	1.5	1.5	2.4		3	1.7	2.4		2.1		2.68	
18EC71	2	2	2	2					2	2		2	2.68	2.66	
18EC72	1.2	1.1							1.3	1.3		1.3		2.27	
18EC732	1.2	1.1	0.9	0.7	1.2				1.2	1.2		1.2			2.4
18EC733	2.4	2.4	2.4		2.4			2.4	2.4	2.4		2.4	1.95	2.1	
18EC741	1.2	1.1	0.9	0.7	1.2				1.2	1.2		1.2			2.4
18EC745	1.83	1.86							1.82	1.82		1.82			2.4
18ECL76	2.6	2.6	2.56	2.56	2.73				2.6	2.6		2.6		2.87	
18ECL77	2.8	2.8	2.8		2.8							2.8			2.6
18ECMP78	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94			2.7
18EC81	1.9						2	2				1.9	2.1	2.1	2.1
18EC821	2.37	2.37			2.27				2.37	2.37		2.37	2.97	2.97	2.97
18ECP83	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97			2.4
18ECS84	2.88	2.88			2.88	2.88	2.88	2.88	2.88	2.88		2.88	2.88	2.88	2.88
18CIE85	2.95	2.95	2.95		2.95	2.95	2.95	2.95	2.95	2.95		2.95			2.62
<b>Direct PO Attainment</b>	96.7	93.15	58.16	36.67	66.61	25.2	13.74	33.2	81.69	77.68	8.53	82.91	26.29	43.51	58.37
<b>Direct PO Attainment in Scale of 3</b>	2.1	2.0	1.3	0.8	1.4	0.5	0.3	0.7	1.8	1.7	0.2	1.8	0.6	0.9	1.3
<b>Direct PO Attainment in %</b>	70.1	67.5	42.1	26.6	48.3	18.3	10.0	24.1	59.2	56.3	6.2	60.1	19.1	31.5	42.3
<b>INDIRECT ATTAINMENT OF POS</b>	2.4	2.4	2.3	2.4	2.4	2.3	2.2	2.1	2.2	2.1	2.1	2.4	2.6	2.4	2.4
<b>Average PO and PSO Mapping in %</b>	80.00	80.00	76.67	80.00	80.00	76.67	73.33	70.00	73.33	70.00	70.00	80.00	86.67	80.00	80.00
<b>Total PO and PSO Mapping in Scale of 3</b>	2.16	2.10	1.47	1.12	1.64	0.90	0.68	1.00	1.86	1.77	0.57	1.92	0.98	1.24	1.50
<b>Total PO and PSO Mapping in %</b>	72.1	70.0	49.0	37.3	54.6	29.9	22.6	33.2	62.0	59.0	18.9	64.1	32.6	41.2	49.8



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**Bengaluru – 560 107**  
**Department of Information Science & Engineering**

**Summary of Average Mapping of COs to POs, for the Batch: 2020**

Graduation Period: 2020-to-2024		Scheme		2018										No.of Courses : 61	
CID	Title of Course	Programme Outcome(PO)s												PSOs	
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C101	Calculus And Linear Algebra	3	2										2		
C102	Engineering Chemistry	2	1				1	1					1		
C103	C Programming For Problem Solving	1	2			1					1		1		1
C104	Basic Electronics	3	2											3	
C101	Elements Of Mechanical Engineering	3	1					1					1		2
C106	Engineering Chemistry Lab	2	1				1	1					1		
C117	C Programming Laboratory	2	2			1					1		1	1	1
C108	Technical English-I						1				2	1	3		
C111	Advanced Calculus And Numerical Methods	3	2												
C112	Engineering Physics	2	1										1		
C113	Basic Electrical Engineering	2	2				1						1	3	
C104	Elements Of Civil Engineering & Mechanics	3	2										1		3
C115	Engineering Graphics	1	2			2					1		2		
C112	Engineering Physics Lab	1	1	1											
C117	Basic Electrical Engineering Lab	1	1				1				2		1	1	
C118	Technical English-2						1				2	1	3		

C201	18MAT31 Transform Calculus, Fourier Series And Numerical Techniques	3	2	2									2		
C202	18CS32 Data Structures and Applications	2.11	2.03	2									1.85	2.025	
C203	18CS33 Analog and Digital Electronics	3	3	1		2							1		
C204	18CS34 Computer Organization	1.25	1	2											1.05
C205	18CS35 Software Engineering	1.13	0.96	1	1.12										
C206	18CS36 Discrete Mathematical Structures	3	2	2									2		
C207	18CSL37 Analog and Digital Electronics Laboratory	2.6	2.65	2.6	2.6				2.6		2.6			2.64	2.67
C208	18CSL38 Data Structures Laboratory	2.25	2.26	2.2	2.28	2.28	2.2		2	2.3	2.12		2.19	2.315	
C211	18MAT41 Complex Analysis, Probability And Statistical Methods	3	2	2									2		
C212	18CS42 Design and Analysis of Algorithms	3	2	2		1							2	1	2
C213	18CS43 Operating Systems	3	2	1		2							2	2	1
C214	18SC44 Microcontroller and Embedded Systems	2	2	1		2							1	1	2
C215	18CS45 Object Oriented Concepts	1.98	2.0	1.9		1.97							2.1		2.2
C216	18CS46 Data Communication	3	2	2									2	1	1
C217	18CSL47 Design and Analysis of Algorithm Laboratory	3	3	2		2							2	2	2
C218	18CSL48 Microcontroller and Embedded Systems Laboratory	2	2	1		2							2	1	1
C301	18CS51 Management, Entrepreneurship for IT Industry	1.8	1.8		1.9	1.7					1.8		1.8	1.7	1.7

C302	18CS52 Computer Networks and Security	2.1	2.1	2.1		2.2							2.1	2.2	2.1
C303	18CS53 Database Management System	1.4	1.4	1.4	1.3	1.3							1.3	1.4	1.4
C304	18CS54 Automata theory and Computability	1.77	1.74											1.8	1.75
C305	18CS55 Application Development using Python	1.7	1.7	1.7		1.7			1.7						1.7
C306	18CS56 Unix Programming	2	2	1		1							2	1	1
C307	18CSL57 Computer Network Laboratory	3	2	2		1							2	2	1
C308	18CSL58 DBMS Laboratory with mini project	3	2	2	1	2							2	1	1
C311	18IS61 File Structures	2	2	1		2							2	1	
C312	18IS62 Software Testing	2	2	1									2		1
C313	18CS63 Web Technology and its applications	1	1	0.9		0.9							1		0.65
C314	18CS643 Cloud Computing and its Applications(PE)	2.62	2.7	2.7		2.8		2.3					2.64		2.64
C314	18CS644Advanced Java	0.3	0.2	0.2	0	0				0	0		0.2	0	0
C316	18ISL66 Software Testing Laboratory	2	2	1		2							2	1	1
C317	18ISL67 File Structures Laboratory with mini project	2	2	1		2							2		1
C318	18ISMP68 Mobile Application Development	3	3	3	3	3				2	2	2	2	3	3
C401	18CS71 Artificial Intelligence and Machine Learning	2.29	2.3	2.3	2.27								2.29	2.3	2.28
C402	18CS72 Big Data Analytics	2	2	1		2							2	1	
C403	18CS731 Software Architecture and Design Patterns	3	2	2	1								2	1	2
C403	18CS744 Cryptography	2.55	2.57										2.55	2.6	2.55

C404	18CS75X Open Elective –B	2	2	1									1	1	
C406	18CS75X Open Elective –B	2	2	1									1	1	
C407	18CSL76 Artificial Intelligence and Machine Learning Laboratory	2.1	2.3	2.3	2.2	2.4	2.5	2.9	2.3	2.6	2.4	2.9	2.6	2.9	2.9
C408	18CSP77 Project Work Phase - 1	3	3	3	2	3	2	2	2	3	3	3	2	2	2
C411	18CS81 Internet of Things	2	2	1		2							2	2	1
C412	18CS822 Storage Area Networks	1.9	1.8	1.8	1.8								1.9	1.8	1.8
C413	18CSP83 Project Work Phase - 2	3	3	3	2	3	2	2	2	3	3	3	2	2	2
C414	18CSS84 Technical Seminar	3	2	2	1						2	2	2	1	1
C412	18CSI85 Internship	3	3	2	1	2	1	2	1	2	2	2	2	2	2
<b>Total PO-PSO Mapping</b>		<b>132</b>	<b>115</b>	<b>72</b>	<b>26</b>	<b>57</b>	<b>16</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>30</b>	<b>17</b>	<b>93</b>	<b>62</b>	<b>62</b>
<b>Average PO-PSO Mapping in Scale of 3</b>		<b>2.2</b>	<b>1.9</b>	<b>1.2</b>	<b>0.4</b>	<b>0.9</b>	<b>0.3</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.5</b>	<b>0.3</b>	<b>1.5</b>	<b>1.0</b>	<b>1.0</b>
<b>Direct Attainment(80%)</b>		<b>1.7</b>	<b>1.5</b>	<b>0.9</b>	<b>0.3</b>	<b>0.7</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.4</b>	<b>0.2</b>	<b>1.2</b>	<b>0.8</b>	<b>0.8</b>
<b>Average Direct Attainment in %</b>		<b>58</b>	<b>50</b>	<b>32</b>	<b>12</b>	<b>25</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>13</b>	<b>7</b>	<b>41</b>	<b>27</b>	<b>27</b>
<b>Average Indirect Attainment in scale of 3</b>		<b>2.7</b>	<b>2.6</b>	<b>2.7</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.4</b>	<b>1.8</b>	<b>2.1</b>
<b>Indirect Attainment(20%)</b>		<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>
<b>Average Indirect Attainment in %age</b>		<b>17.8</b>	<b>17.2</b>	<b>18</b>	<b>17.8</b>	<b>18</b>	<b>17.4</b>	<b>18</b>	<b>17.97</b>	<b>17.7</b>	<b>17.46</b>	<b>17.1</b>	<b>16.23</b>	<b>12</b>	<b>14</b>
<b>Total Attainment</b>		<b>2.3</b>	<b>2.0</b>	<b>1.5</b>	<b>0.9</b>	<b>1.3</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.9</b>	<b>0.7</b>	<b>1.7</b>	<b>1.2</b>	<b>1.2</b>
<b>Total Attainment in %</b>		<b>75.4</b>	<b>67.3</b>	<b>49.6</b>	<b>29.3</b>	<b>43.0</b>	<b>24.3</b>	<b>23.7</b>	<b>23.9</b>	<b>24.2</b>	<b>30.5</b>	<b>24.5</b>	<b>57.1</b>	<b>39.0</b>	<b>41.2</b>



Head of the Department  
Department of Information Science & Engg  
Acharya Institute of Technology  
Soldevanahalli, Bengaluru - 560 107



## Department of Mechanical Engineering Acharya Institute of Technology

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Summary of PO and PSOs Attainment for the Batch: 2020																			
Graduation Period: 2020-to-2024		Scheme				2018		No.of Courses						44		PSOs			
CID	Title of Course	Programme Outcome(PO)s												PSOs					
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4		
C201	TRANSFORM CALCULUS, FOURIER SERIES & NUMERICAL TECHNIQUE	0.9	0.9															0.9	
C202	MECHANICS OF MATERIALS	0.9	0.9			0.8				0.8	0.8		0.9	0.9	0.9				
C203	BASIC THERMODYNAMICS	1.1	1.0					1.6			1.2		1.1	1.2	1.1				
C204	MATERIAL SCIENCE	1.9											1.9				1.9		
C205	METAL CUTTING AND FORMING	1.8	1.9										1.8				1.8		
C206	COMPUTER AIDED MACHINE DRAWING	2.2				2.2					2.2		2.2	2.2			2.2		
C207	MATERIAL TESTING LAB	2.7	2.7	2.7	2.7		2.7		2.7	2.7	2.7		2.7	2.7	2.7			2.7	
C208	WORKSHOP AND MACHINE SHOP LABORATORY	2.8	2.8	2.7			2.7			2.8	2.8		2.8				2.8		
C211	COMPLEX ANALYSIS , PROBABILITY AND STATISTICAL METHODS	1.6	1.6															1.6	
C212	APPLIED THERMODYNAMICS	1.2	0.9					1.0			1.3		1.4	1.3	0.7				
C213	FLUID MECHANICS	0.8	0.8	0.8							0.8		0.8	0.7	0.8				
C214	KINEMATICS OF MACHINES	1.1	1.2	0.9									1.3	1.3	1.1	1.1	1.5		
C215	METAL CASTING AND WELDING	2.2											2.2	2.2			2.3		
C216	MECHANICAL MEASUREMENTS AND METROLOGY	1.9	1.9	1.9								1.9	1.9				2	1.9	
C217	MECHANICAL MEASUREMENTS AND METROLOGY LAB	2.7	2.7	2.7	2.6	2.6	2.7		2.7	2.6	2.7		2.7				2.7	2.7	
C218	FOUNDRY, FORGING AND WELDING LAB	2.7	2.7	2.7			2.7		2.7	2.7			2.7				2.7		
C301	MANAGEMENT AND ECONOMICS	1.0	0.9	0.9			1.0		0.9		0.9	0.9	0.9					0.9	
C302	DESIGN OF MACHINE ELEMENTS- I	1.3	1.2	1.2		1.2						1.3		1.2		1.3	1.1		
C303	DYANMICS OF MACHINES	1.4	1.4	1.4									1.4		1.4				
C304	TURBOMACHINES	1.7	1.7										1.5	1.8	1.7				
C305	FLUID POWER ENGINEERING	1.0	1.2	1.1	1.0								1.0	0.9	1	1			
C306	OPERATIONS MANAGEMENT	1.0	1.0	1.1	0.6	0.7	0.5	0.5	1.4				0.5	0.9	0.9	1.1	0.8		
C307	FLUID MECHANICS AND MACHINES LABORATORY	2.8	2.8	2.8			2.7		2.8	2.8			2.8				2.8		
C308	ENERGY CONVERSION LAB	2.7	2.6	2.6	2.6		2.6		2.6	2.6	2.6		2.6	2.7	2.6				

Summary of PO and PSOs Attainment for the Batch: 2020																	
Graduation Period: 2020-to-2024		Scheme			2018			No.of Courses			44			PSOs			
CID	Title of Course	Programme Outcome(PO)s												1	2	3	4
		1	2	3	4	5	6	7	8	9	10	11	12				
C309	ENVIRONMENTAL STUDIES	2.6	2.5				2.7	2.1	2.5					2.1	2		2.7
C311	FINITE ELEMENT METHODS	1.1	1.3	1.3									1.3		1.3		
C312	DESIGN OF MACHINE ELEMENTS-II	1.9	1.9	1.8							1.9		1.9	1.8	1.8	1.9	2
C313	HEAT TRANSFER	1.9	1.7						1.8				1.7	1.7	1.6		
C314	NON TRADITIONAL MACHINING	2.1	2.1										2.1			2.1	
C316	COMPUTER AIDED MODELLING AND ANALYSIS LAB	2.8	2.8	2.8	2.8	2.7	2.8		2.9	2.8	2.8		2.8	2.8			2.8
C317	HEAT TRANSFER LAB	2.7	2.7	2.7	2.7		2.6		2.6	2.7	2.6		2.7	2.7	2.7		2.6
C318	MINI PROJECT	2.9	2.9			2.9				2.9			2.9	2.9	2.9	2.9	
C401	CONTROL ENGINEERING	2.0	2.0		2.0								2.0	2.0	2	2	
C402	COMPUTER AIDED DESIGN AND MANUFACTURING	1.8		1.9									1.8	1.9			
C403	AUTOMATION AND ROBOTICS	1.1		1.0	1.7								1.2		1	1.5	1.1
C404	ADDITIVE MANUFACTURING	2.4	2.4	2.4		2.4							2.4		2.3	2.3	
C406	COMPUTER INTEGRATED MANUFACTURING LAB	2.7			2.7								2.7	2.8			2.7
C407	DESIGN LAB	2.9	2.8	2.8	2.8		2.9		2.8	2.8	2.9		2.8	2.8	2.8		2.8
C408	PROJECT PHASE I	2.9	2.9			2.9				2.9			2.9	2.9	2.9	2.9	
C411	ENERGY ENGINEERING	2.1	1.8										2.1	2	2		
C412	AUTOMOBILE ENGINEERING	2.1	2.0	2.0		2.0					2.2		2.1	2.1		2.2	
C413	PROJECT PHASE II	2.3	2.4			2.3				2.2			2.3	2.7	2.7	2.7	2.7
C414	TECHNICAL SEMINAR PRESENTATION	2.7	2.7	2.7		2.7	2.7		2.8	2.7	2.8	2.7	2.7	2.3	2.3	2.1	
C415	INTERNSHIP	2.4	2.3						2.3	2.3	2.3		2.3	2.4	2.2	2.4	
Direct	<b>Total PO and PSO Attainment</b>	86.5	73.9	46.8	24.2	25.5	31.4	5.19	33.5	38.2	41.9	4.14	81.4	56.5	48.9	48.6	30.1
	<b>Average PO and PSO Attainment in Scale of 3</b>	1.97	1.68	1.06	0.55	0.58	0.71	0.12	0.76	0.87	0.95	0.09	1.85	1.28	1.11	1.10	0.68
	<b>Average PO and PSO Attainment in %</b>	66	56	35	18	19	24	4	25	29	32	3	62	43	37	37	23
Indirect	<b>Average PO and PSO Attainment in Scale of 3</b>	2.2	1.2	0.9	1.1	1.9	2.1	1.4	1.6	1.9	1.1	1.3	1.8	1.6	1.2	0.9	1.6
	<b>Average PO and PSO Attainment in %</b>	73	40	30	37	63	70	47	53	63	37	43	60	53	40	30	53
Overall	<b>Average PO and PSO Attainment in Scale of 3</b>	2.01	1.58	1.03	0.66	0.84	0.99	0.37	0.93	1.07	0.98	0.34	1.84	1.35	1.13	1.06	0.87
	<b>Average PO and PSO Attainment in %</b>	67.1	52.8	34.4	22.0	28.1	33	12.5	31	35.8	32.8	11.2	61.3	44.9	37.6	35.5	28.9

  
**HEAD OF THE DEPARTMENT**  
 Mechanical Engg.  
**ACHARYA INSTITUTE OF TECHNOLOGY**  
 Bangalore



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Mechatronics Engineering

Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2024

Graduation Period: 2020-to-2024		Scheme		2018								No.of Courses : 59					
CID	Title of Course	Programme Outcome(POs)										PSOs					
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	
C101	CALCULUS AND LINEAR ALGEBRA	2.00	2.00														
C102	ENGINEERING CHEMISTRY	1.80	1.70				1.60	1.50					1.90				
C103	C PROGRAMMING FOR PROBLE SOLVING	1.56	1.50	1.50											1.80		
C104	BASIC ELECTRONICS	1.63	1.50												1.60		
C105	ELEMENTS OF MECHANICAL ENGINEERING	1.40	1.20					1.40					1.27	2.30			
C106	ENGINEERING CHEMISTRY LAB	2.66	2.56				2.70	2.36					2.48				
C107	C PROGRAMMING LAB	2.40	2.68	2.52											1.20		
C108	TECHNICAL ENGLISH-1						1.07				1.07	1.07	1.07				
C111	ADVANCED CALCULUS AND NUMERICAL METHODS	2.77	2.77														
C112	ENGINEERING PHYSICS	2.30	2.30										2.30	1.40	1.40	1.10	
C113	BASIC ELECTRICAL ENGINEERING	2.01	2.00	2.06	2.06	2.11	2.10	2.09	2.10	2.08	2.08	2.11	2.09		1.20		
C114	ELEMENTS OF CIVIL ENGINEERING	1.65	1.68							1.59	1.61		1.59				
C115	ENGINEERING GRAPHICS	2.65	2.65	2.70		2.65	2.70				2.65		2.65	2.20			
C116	ENGINEERING PHYSICS LAB	2.00	2.30	2.40										1.30	1.40		
C117	BASIC ELECTRICAL ENGINEERING LABORATORY	2.74	2.85	2.80	2.80		2.30		2.30	2.85	2.56		2.66		1.10		
C118	TECHNICAL ENGLISH-2						1.78				1.78	1.78	1.78				
C201	TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUES	1.70	1.70														
C202	MATERIAL SCIENCE AND TECHNOLOGY	2.14	2.16	2.05										2.16		2.18	
C203	MECHANICS OF MATERIALS	1.48	1.38	1.26	1.23									1.44		1.47	
C204	CONTROL SYSTEMS	1.56	1.53	1.55	1.43									1.60		1.48	
C205	ANALOG AND DIGITAL ELECTRONICS	2.30	2.30	2.30									2.30	2.30	2.30	2.30	
C206	COMPUTER ORGANIZATION	2.05	2.05										2.10		2.05		
C207	MACHINE SHOP AND MATERIAL TESTING LAB	2.65	2.53	2.45	2.53									2.45	2.90	2.53	
C208	ANALOG AND DIGITAL ELECTRONICS LAB	2.48	2.48	2.48			2.48			2.48	2.48	2.48	2.48	2.48	2.48	2.48	
C211	COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS	2.70	2.70														
C212	FLUID MECHANICS AND MACHINES	2.24	2.48	2.56	2.15									2.29		2.30	
C213	MICROCONTROLLER	2.80	2.80	2.80						2.00	2.00			2.70	2.70	2.70	
C214	MANUFACTURING TECHNOLOGY	2.07	1.90	2.50	2.50	1.50	1.83	2.50						1.75	2.50	2.50	
C215	THEORY OF MACHINES	1.35	1.22	0.97	0.60									1.23		1.17	
C216	INSTRUMENTATION AND MEASUREMENTS	2.58								2.58	2.58	2.58	2.58	2.58	2.58	2.58	
C217	FM AND PNEUMATIC LABORATORY	2.03	2.07	2.05													
C218	MICROCONTROLLER LABORATORY	2.80	2.80	2.70											2.85	2.87	
C301	TECHNOLOGICAL INNOVATION MANAGEMENT AND ENTREPRENEURSHIP	2.04	2.12						2.04	2.04	2.04	2.04					
C302	DESIGN AND ANALYSIS OF MACHINE ELEMENTS	1.71	1.70	1.74									1.70	1.71		1.70	
C303	VIRTUAL INSTRUMENTATION	2.75	2.76	2.76	2.75	2.75								2.75	2.75	2.75	
C304	HYDRAULICS AND PNEUMATICS	2.53	2.70	2.63	2.48		2.70							2.55	2.70	2.70	
C305	MICRO AND SMART SYSTEMS TECHNOLOGY	2.75		2.75										2.75	2.75	2.75	
C306	WIRELESS NETWORKS & COMMUNICATIONS	2.33	2.31	2.34	2.33										2.33		
C307	VIRTUAL INSTRUMENTATION-LABORATORY	2.85	2.89	2.87	2.93	2.87								2.89	2.89	2.87	
C308	MSST-LABORATORY	2.70	2.70	2.70									2.70	2.70		2.70	
C311	PLC & SCADA	2.71	2.68	2.70	2.69	2.70								2.90	2.90	2.90	
C312	POWER ELECTRONICS	2.30	2.30	2.30	2.30	2.30									2.30	2.30	
C313	COMPUTER AIDED MACHINE DRAWING	2.42	2.42	2.42	2.43	2.43								2.42	2.50	2.41	
C314	SATELLITE COMMUNICATION	2.60					2.60						2.60	2.60	2.60	2.60	
C315	PLC AND SCADA- LABORATORY	2.88	2.90	2.88	2.91	2.90								2.90	2.89	2.90	
C316	POWER ELECTRONICS - LABORATORY		2.70	2.70											2.70	2.70	
C317	MINI-PROJECT	2.97	2.97	2.97	2.96	2.97	3.00	3.00	3.00	2.98	3.00	3.00	2.98	2.98	2.98	2.98	
C401	INDUSTRIAL ROBOTICS	2.51	2.56	2.43	2.58	2.53				2.40		2.60	2.50	2.48	2.56	2.54	

C402	THERMAL ENGINEERING	2.50	2.50	2.50	2.50										2.60		2.60
C403	REAL TIME SYSTEMS	2.67	2.60	2.64	2.56	2.70									2.68		
C404	ARTIFICIAL INTELLIGENCE	2.80	2.80	2.80	2.56	2.80										2.80	
C405	ROBOTICS LAB			2.90	3.00										2.84	2.83	2.84
C406	THERMAL -LABORATORY	2.52	2.53	2.57	2.53										2.04	2.90	2.23
C407	PROJECT WORK PHASE - I	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
C411	AUTOMOTIVE ELECTRONICS & HYBRID VEHICLES	2.05	2.02	2.02												2.72	2.66
C412	COMMUNICATION SYSTEM	2.71	2.67	2.64	2.64	2.80									2.72		
C413	PROJECT WORK PHASE - II	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90
C414	TECHNICAL SEMINAR	3.00	3.00	3.00	3.00	3.00	3.00			3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C415	INTERNSHIP	2.70	2.70	2.70		2.70	2.70			2.70	2.70	2.70	2.70	2.70	2.70		2.70
DIRECT ATTAINMENT		1.36	1.31	1.89	2.46	2.23	2.47	2.20	1.70	2.32	2.88	2.56	2.76	2.76	2.39	1.93	
INDIRECT ATTAINMENT		2.50	2.50	2.50	2.50	2.50	2.50	2.20	2.20	2.20	2.20	2.20	2.20	2.50	2.50	2.50	
Average of Total PO Attainment scale (0-3)		1.59	1.55	2.01	2.47	2.29	2.48	2.20	1.80	2.30	2.74	2.49	2.65	2.71	2.41	2.04	
Average of Total PO Attainment %		52.96	51.61	67.10	82.30	76.25	82.53	73.33	60.00	76.53	91.47	82.93	88.31	90.27	80.43	68.02	

**HEAD OF THE DEPARTMENT**  
**MECHATRONICS ENGINEERING**  
 Acharya Institute of Technology  
 Saradevanahalli, Bengaluru - 560107



2024

**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Master of Business Administration

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2022**

Graduation Period: 2022-to-2024		Scheme		2022		No.of Courses		38	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C101	Principles of Management and Organizational Behaviour (22MBA11)	1.75	1.28	1.50		1.50	2.00	1.60	
C102	Entrepreneurship Development (22MBA12)	1.88	1.63	1.40	2.67	1.35	1.80	1.80	2.00
C103	Accounting for Managers (22MBA13)	2.00	1.52		1.60	1.56	1.60	1.67	
C104	Statistics for Managers (22MBA14)	2.25	1.98		1.50	2.33	1.83	2.17	1.00
C105	Marketing Management (22MBA15)	2.25	1.63	1.33	2.00	1.33	2.50	1.83	
C106	Business Communication (22MBA16)	1.63	1.26	2.00	2.50	2.67	2.17	1.83	
C201	HUMAN RESOURCE MANAGEMENT (22MBA21)	2.00	1.93		2.50	2.33		2.75	1.30
C202	FINANCIAL MANAGEMENT (22MBA22)	2.13	1.68				1.33		2.50
C203	Research Methodology and IPR (22MBA23)	2.13							
C204	OPERATIONS RESEARCH (22MBA24)	2.25	1.68				2.00		2.50
C205	STRATEGIC MANAGEMENT (22MBA25)	2.25	2.45				1.45		
C206	MANAGERIAL ECONOMICS (22MBA26)	2.25	1.68				2.33		1.50
C301	LOGISTICS AND SUPPLY CHAIN MANAGEMENT (22MBA31)	2.25	2.33		2.30				
C302	Information Technology for Managers (22MBA32)	2.25	1.82		2.45		2.45		2.50
C303	CONSUMER BEHAVIOUR (22MBA303)	2.25	2.82		2.33		2.00		1.50
C304	Sales and Retail Management (22MBAMM304)	2.25	1.82	2.00	2.30				2.50
C305	Strategic Cost Management (22MBAFM303)	2.25	1.68				2.33		



**ACHARYA INSTITUTE OF TECHNOLOGY**  
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**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2022**

Graduation Period: 2022-to-2024		Scheme		2022		No.of Courses		38	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C306	SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT (22MBAFM304)	2.25	1.68						2.50
C307	ADVANCED FINANCIAL MANAGEMENT (22MBAFM305)	2.25	1.68						2.50
C308	Banking & Services Operations (22MBAFM306)	2.25	1.82		2.00		1.40		
C309	RECRUITMENT AND SELECTION (22MBAHR303)	2.25	1.82		2.00		2.30		2.50
C310	Industrial Relations And legislations (22MBAHR304)	2.25	1.68						
C311	Introduction to Python, Data and Control Systems (22MBABA303)	2.25	1.82		2.00				2.50
C312	EXPLORATORY DATA ANALYSIS FOR BUSINESS (22MBABA304)	2.25	1.68						2.50
C313	INTERNSHIP (22MBAIN307)	1.88	1.68	2.30	2.20	2.34	2.67	2.56	
C401	International Business (22MBA401)	1.88			2.50	1.80	2.67	2.50	2.00
C402	INNOVATION AND DESIGN THINKING (22MBA402)	1.75	1.75	2.33	2.25		2.83	2.67	
C403	STRATEGIC BRAND MANAGEMENT (22MBAMM403)	1.88	1.75	2.67	2.67	2.00	2.83	2.60	1.33
C404	INTEGRATED MARKETING COMMUNICATIONS (22MBAMM404)	1.75	1.75	2.33			2.83	2.67	1.20
C405	Global Financial Management (22MBAFM403)	2.25	1.40	3.00	2.00	2.00			
C406	MERGERS ACQUISITIONS AND CORPORATE RESTRUCTURING (22MBAFM404)	1.50	2.10		2.00	2.00		2.00	
C407	RISK MANAGEMENT AND INSURANCE (22MBAFM405)	2.25	2.10	2.00	2.00		2.00		1.00
C408	INDIRECT TAXATION (22MBAFM406)	1.50		3.00				2.00	2.00
C409	CONFLICT & NEGOTIATION MANAGEMENT (22MBAHR403)	2.25	2.10			2.00		3.00	



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru - 560 107  
Department of Master of Business Administration

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2022**

Graduation Period: 2022-to-2024		Scheme		2022		No.of Courses		38	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C410	Global HRM (22MBAHR404)	1.50	1.40			2.00		2.00	2.00
C411	Machine learning (22MBABA403)	2.25		3.00	2.00	2.00	3.00		
C412	HR Analytics (22MBABA404)	1.50	1.40		2.11	2.00		3.00	
C413	PROJECT REPORT (22MBAPR407)	1.75	1.75	2.33	2.25	2.25	2.83	2.67	1.20
<b>Total PO PSO Attainment</b>		77.63	60.56	31.20	50.12	33.46	51.16	41.31	40.53
<b>Average Total PO PSO Attainment</b>		2.04	1.59	0.82	1.32	0.88	1.35	1.09	1.07
<b>(Scale : 0-3) and ( % )</b>		68.09	57.10	27.37	43.97	29.35	44.88	36.24	35.56

Head of the Department  
Department of MBA  
Acharya Institute of Technology  
Soldevanahalli, Bangalore-5




**Acharya Institute of Technology**  
**Department of MBA**  
**Attainment of PO & PSO**  
**2022-24 Batch**

<b>Direct attainment</b>	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
CIE+SEE	2.04	1.59	0.82	1.32	0.88	1.35	1.09	1.07

<b>Indirect attainment</b>	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
Activities	2.51	2.28	2.03	2.33	1.91	2.33	2.34	1.73
Program exit survey	2.52	2.49	2.47	2.51	2.51	2.52	2.52	2.48
Activities (70 % )	1.76	1.59	1.42	1.63	1.34	1.63	1.64	1.21
Program exit survey (30 %)	0.76	0.75	0.74	0.75	0.75	0.76	0.76	0.74
<b>Total indirect attainment</b>	<b>2.52</b>	<b>2.34</b>	<b>2.16</b>	<b>2.38</b>	<b>2.09</b>	<b>2.38</b>	<b>2.39</b>	<b>1.95</b>

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>Direct attainment (80%)</b>	1.63	1.27	0.66	1.06	0.70	1.08	0.87	0.85
<b>Indirect attainment (20%)</b>	0.50	0.47	0.43	0.48	0.42	0.48	0.48	0.39
<b>Total attainment</b>	<b>2.14</b>	<b>1.74</b>	<b>1.09</b>	<b>1.53</b>	<b>1.12</b>	<b>1.55</b>	<b>1.35</b>	<b>1.24</b>
<b>Total attainment in %</b>	<b>71.24%</b>	<b>58.08%</b>	<b>36.28%</b>	<b>51.04%</b>	<b>37.44%</b>	<b>51.80%</b>	<b>44.93%</b>	<b>41.46%</b>

  
 Head of the Department  
 Department of MBA  
 Acharya Institute of Technology  
 Soldevanahalli, Bangalore-56



**Department of Master of Computer Applications  
Acharya Institute of Technology**

Affiliated to VTU, Recognized by GOK and Approved by AICTE, New Delhi  
Acharya Dr. Sarvepalli Radhakrishnan Road, Acharya P.O., Soladevanahalli, Bangalore-560107, INDIA  
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Summary of PO and PSOs Attainment for the Batch: 2022																
Graduation Period: 2022 - 2024		Scheme			2022		No. of Courses					25		PSOs		
CID	Title of Course	Programme Outcome(PO)s												1	2	3
		1	2	3	4	5	6	7	8	9	10	11	12			
22MCA11	Mathematical Foundation for Computer Applications	1.5	1.7	1.3	2	2							1	1.5	2	1.4
22MCA12	Operating System Concepts	1.4	1.2	1.6	1.2	1.6	1.4	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.2	1.3
22MCA13	Data Structures with Algorithms	1.8	1.8	1.8	1.8	1.8		1.8				1.8	1.8	1.8	1.8	1.8
22MCA14	Computer Networks	1.2	1.7	1.5	1.5	1.5	1.1	1	1	1	1	1	1	1.4	1.2	1.5
22MCA15	Design and Analysis of Algorithms	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
22RM118	Research Methodology	2	2	2	2	2	2	2	2	2		2	1.5	1.5	1.7	2
22MCA21	Database Management System	0.8	0.9	1	0.5	1	1	1	1	1	1	1	1	1.1	1.1	1.1
22MCA22	Object Oriented Programming Using Java	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
22MCA23	Software Engineering	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5		2.5	2.5	2.5
22MCA24	Web Technologies	2.8	2.4	2.4	2.33	2.8						2	2.8	3	2.4	2.4
22MCA252	Data Mining and Business Intelligence	0.9	1	0.9	0.7	0.9	0.9	0.7	1	0.9	0.8	0.9	0.9	0.9	0.8	0.7
22MCA254	User Interface Design	1.2	1.5	1.4	1	1	1.3	1	1	0.7	0.6	1	0.5	0.7	0.9	1
22MCA261	Cryptography and Network Security	0.8	2	1.5	1	1.3	1	1	1	1	1	1	1	1.1	1.7	1.7
22MCA263	Mobile Application Development	1	1	1	1	1	1	1						1	1	1
22MCA31	Data Analytics Using Python	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
22MCA32	Internet of Things	0.7	0.8	0.6	0.7	0.7	0.8	0.8	0.6	0.8	0.7	0.8	0.7	0.7	0.7	0.6
22MCA332	Cloud Computing	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
22MCA335	NoSQL	1.5	1.2	1.8	0.6	1.5	1.2	1.2	1.1	1	1	1.2	1.3	1.3	1.2	1.2
22MCA342	Introduction to Dot Net Framework	0.8	0.9	0.5	0.4	0.4	1.2	0.3	0.3	1.5	1.3	1	1	0.8	0.8	0.8
22MCA344	Software Testing	1.7	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.7	1.7	1.8	1.7	1.7	1.8	1.8
22MCAL35	Project Phase 1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
22MCA414	Software Project Management	2.9	2.9	2.9	2.8	2.9	3	3	2.4	3	3	2.9	2.9	2.9	2.9	2.9
22MCA422	Semantic Web and Social Networks	1	1	1	0.8	1	1	1	1	1	1	1	1	1	1	1
22MCA424	Agile Technology	0.8	1.3	1.5	0.8	1	0.8	0.8	0.8	2	2	0.7	0.7	1	1	1
22MCA44	Project Phase 2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3	3	3
Total PO Attainment		41.0	43.3	42.7	39.13	42.3	35.7	36.2	32.6	35.2	30.2	37.7	35.9	39.9	41.6	41.6
Average PO Attainment in Scale of 3		1.64	1.73	1.71	1.57	1.69	1.43	1.45	1.30	1.41	1.21	1.51	1.44	1.60	1.66	1.66
<b>DIRECT ATTAINMENTS - 80 % (CIE+SEE)</b>		1.31	1.39	1.37	1.25	1.35	1.14	1.16	1.04	1.13	0.97	1.21	1.15	1.28	1.33	1.33
Average Direct PO Attainment in %		44	46	46	42	45	38	39	35	38	32	40	38	43	44	44
Average Indirect PO Attainment in Scale of 3		2.30	2.54	2.74	2.45	2.55	2.84	2.12	2.34	2.26	2.55	2.85	2.76	2.25	2.75	2.12
<b>INDIRECT ATTAINMENTS - 20% (Activities + Exit Survey)</b>		0.46	0.508	0.548	0.49	0.51	0.568	0.424	0.468	0.452	0.51	0.57	0.552	0.45	0.55	0.424
Average Indirect PO Attainment in %		15	17	18	16	17	19	14	16	15	17	19	18	15	18	14
<b>TOTAL ATTAINMENT</b>		<b>1.77</b>	<b>1.89</b>	<b>1.91</b>	<b>1.74</b>	<b>1.86</b>	<b>1.71</b>	<b>1.58</b>	<b>1.51</b>	<b>1.58</b>	<b>1.48</b>	<b>1.78</b>	<b>1.70</b>	<b>1.73</b>	<b>1.88</b>	<b>1.76</b>
<b>TOTAL ATTAINMENT in %</b>		<b>59</b>	<b>63</b>	<b>64</b>	<b>58</b>	<b>62</b>	<b>57</b>	<b>53</b>	<b>50</b>	<b>53</b>	<b>49</b>	<b>59</b>	<b>57</b>	<b>58</b>	<b>63</b>	<b>59</b>



# ACHARYA INSTITUTE OF TECHNOLOGY

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## PO Attainment (Batch 2019-2023)




**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Aeronautical Engineering

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2019**

Graduation Period: 2019-to-2023		Scheme	2018	No.of Courses										61	Program Specific Outcomes			
Total Attainment of Programme Outcomes													Program Specific Outcomes					
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	
C101	CALCULUS AND LINEAR ALGEBRA	2.11	2.11										2.11					
C102	Engineering Chemistry	1.98	1.84				1.84	1.84					2.07					
C103	C Programming for Problem Solving	1.75	1.75			1.75					1.79		1.79		1.8			
C104	BASIC ELECTRONICS	1.59	1.62											1.6		1.5		
C101	ELEMENTS OF MECHANICAL ENGINEERING	1.95	1.96					2.04					1.95		1.9			
C106	Engineering Chemistry Lab	2.74	2.64				2.64	2.64					2.78					
C117	C PROGRAMMING LABORATORY	2.46	2.46			2.46					2.7		2.7	2.2	2.2			
C108	TECHNICAL ENGLISH-I						2.03				2.03		2.03					
C111	ADVANCED CALCULUS AND NUMERICAL METHODS	2.69	2.69															
C112	Engineering Physics	2.51	2.28										2.6					
C113	BASIC ELECTRICAL ENGINEERING	2.9	2.91				2.9						2.9	2.9				
C114	ELEMENTS OF CIVIL ENGINEERING & MECHANICS	2.44	2.42										2.5		2.5			
C115	Engineering Graphics	2.4	2.4			2.4					2.4		2.4			2.4		
C112	ENGINEERING PHYSICS LAB	2.52	2.56	2.58														
C117	Basic Electrical Engineering Lab	2.98	2.98				2.9				2.9		2.9	2.9		3		
C118	TECHNICAL ENGLISH-2						2.24				2.24	2.24	2.24					
C201	TRANSFORM CALCULUS, FOURIER SERIES & NUMERICAL	1.94	1.94										1.94					
C202	Aero Thermodynamics	1.87	1.87	1.87	1.87								1.87	1.9		1.9		
C203	Mechanics of Materials	1.71	1.71	1.71	1.71								1.71	1.7	1.7			
C204	Elements of Aeronautics	2.62	2.62	2.62									2.62	2.6	2.6	2.6	2.6	
C205	Fluid Mechanics	2.22	2.22	2.22									2.22	2.2		2.2		
C206	Measurement and Metrology	1.84	1.83	1.83									1.84	1.8	1.8			
C207	Measurements and Metrology Lab	2.68	2.68	2.68		2.68				2.68	2.68		2.68	2.7	2.7			
C208	Machine shop Lab	3	3	3	3	3				3	3		3	3	3			
C201	Complex Analysis, Probability & Statistical Methods	2.27	2.27										2.27					
C212	Aerodynamics - I	2.59	2.59	2.59	2.59								2.59	2.6	2.6	2.6	2.6	
C213	Aircraft Propulsion	3	3	3									3	3		3		
C214	MECHANISMS AND MACHINE THEORY	2.82	2.82	2.82	2.82								2.82	2.8	2.8			
C215	Aircraft Material And Science	2.82	2.82	2.82									2.82	2.8	2.8			
C216	TURBOMACHINES	2.92	2.92	2.92	2.92								2.92	2.9		2.9		
C217	Material Testing Lab	2.84	2.84	2.84		2.84				2.84	2.84		2.84	2.8	2.8			
C218	COMPUTER AIDED AIRCRAFT DRAWING	2.84	2.84	2.84	2.84	2.84				2.84	2.84		2.84	2.8	2.8	2.8	2.8	
C301	Management and Entrepreneurship								2.47	2.47	2.47	2.47	2.47					
C302	Aerodynamics - II	1.14																
C303	Aircraft Structures-I	2.3	2.3	2.3									2.3	2.3	2.3	2.3		

C304	Introduction to Composite Materials	2.26	2.26	2.27								2.26	2.3	2.3			
C305	Aircraft Systems & Instrumentation	2.46			0.82							0.82	1.2				
C306	Theory of Vibrations	2.31	2.31	2.31	2.31							2.31	2.3	2.3		2.3	
C307	Aerodynamics Lab	2.7	2.7	2.7	2.68	2.7			2.7	2.7		2.7	2.7	2.7	2.7	2.7	
C308	Energy Conversion and Fluid Mechanics Lab	2.77	2.77		2.79				2.79	2.78	2.77	2.76	2.8	2.8	2.8		
C311	Aircraft Performance	2.18	2.17		2.2							2.18	2.2		2.2		
C312	Aircraft Structures-II	2.06	2.06	2.06	2.06							2.06	2.1	2.1	2.1		
C313	Finite Element Method	1.52	1.54	1.54	1.54	1.6						1.54	1.5	1.5	1.5		
C314	Gas Turbine Technology	2.53	2.52		2.46							2.54	2.5	2.6	2.5		
C314	ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEM	1.88	1.88	1.88								1.88	1.9	1.9	1.9	1.9	
C316	Aircraft Propulsion Lab	2.74	2.75		2.76				2.75			2.74	2.7		2.7		
C317	Aircraft Structures Lab	2.85	2.85	2.85	2.85	2.85			2.85	2.85		2.85	2.9	2.9			
C318	Mini Project	2.75	2.75	2.75	2.75	2.75			2.75	2.75	2.75	2.75	2.7	2.7	2.7	2.7	
C401	AIRCRAFT STABILITY AND CONTROL	2.24	2.24	2.24	2.23	2.32			2.32	2.24		2.24	2.2			2.2	
C402	COMPUTATIONAL FLUID DYNAMICS	2.08	2.08	2.08	2.08							2.08	2.1		2.1		
C403	Control Engineering	1.78	1.72	2								1.78		1.8		1.8	
C403	Heat and Mass Transfer	2.04	2.04	2.03	2.04							2.03	2		2		
C404	Wind Tunnel Techniques	2.2	2.16	2.18	2.18							2.18	2.2	2.2	2.2		
C406	Modelling and Analysis lab	1.11	1.11	1.19	1.11	1.11				1.11		1.11	1.1	1.2			
C407	Flight Simulation Lab	2.52	2.52	2.52	2.52	2.52			2.52	2.52		2.52	2.5			2.5	
C408	Project Work Phase - 1	2.65	2.65	2.65	2.6	2.65	2.65	2.66	2.66	2.67	2.67	2.66	2.7	2.7	2.7	2.7	
C411	Flight Vehicle Design	1.84	1.8	1.81		1.85	1.84		1.85			1.84	1.8	1.8	1.8	1.9	
C412	AVIONICS	2.32	2.32		2.32	2.32		2.32				2.32				2.3	
C413	Project Work Phase - 2	2.82	2.81	2.81	2.81	2.81	2.84	2.84	1.87	2.1	1.39	1.39	2.1	2.2	2.2	2.2	
C414	Technical seminar	2.34	2.42	2.28	2.38	2.63			2.5		2.5	2.5	2.3	2.3	2.3	2.3	
C412	Internship	2.74	2.74	2.74		2.65	2.65		2.66	2.92	2.66	2.65	2.65	2.7	2.7	2.7	
<b>Average Total PO Attainment (Scale : 0-3) and ( % )</b>		<b>2.2</b>	<b>2.2</b>	<b>1.4</b>	<b>1</b>	<b>0.9</b>	<b>0.4</b>	<b>0.2</b>	<b>0.2</b>	<b>0.7</b>	<b>0.9</b>	<b>0.3</b>	<b>2.2</b>	<b>1.7</b>	<b>1.3</b>	<b>1.1</b>	<b>0.6</b>
		<b>74</b>	<b>72</b>	<b>46.7</b>	<b>34</b>	<b>28.3</b>	<b>13.4</b>	<b>6.6</b>	<b>7.9</b>	<b>23</b>	<b>29.5</b>	<b>9.3</b>	<b>72.7</b>	<b>55.3</b>	<b>42.1</b>	<b>36.2</b>	<b>19.4</b>

  
**Head of the Department**  
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**Acharya Institute of Technology**  
**Bangalore - 560 107**



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF AERONAUTICAL ENGINEERING**  
**BENGALURU - 560107**

Batch 2019 - 2023

Academic Year	Sl No.	Event	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	
2020-21	1	Seminar - Trends of millennials contribution and challenge in Aerospace				2.90	2.80		2.90	2.80	2.80	3.00			2.80	3.00	2.80	2.90	
	2	Webinar – Aero Engine Performance and Manufacturing Aspects	3.00	3.00		2.85	2.80		2.95	2.90	2.80	2.80	2.90	2.95	2.90		2.80		
2021-22	1	Workshop on fundamental of python programming	2.95	3.00	2.85	2.90	2.85		2.80	2.95		3.00		2.90	2.90	2.70			
	2	Educational vist to Airforce Technical College , AFTC, Jalahalli, Bangalore	2.82	2.88	2.80	2.91	2.84	2.84	2.89	2.86	2.95	2.84		2.91	2.75	2.86	2.73	2.86	
	3	Educational vist to Air India Engincering Services Ltd, AESL, Mumbai	2.91	2.88	2.91	2.93	2.89	2.91	2.89	2.91	2.96	2.86		2.96	2.79	2.89	2.80	2.88	
	4	Technical Activity -Make and Fly - Paper plane	2.80	2.87	2.60	2.93	2.73	3.00	3.00	2.93	2.47	2.80	2.93	2.87	2.87	2.93			
	5	Workshop on 3 day skill development workshop on deonstratation of IoT for aerospace Applications	2.92		2.92	2.25	2.58	2.58	2.58	2.58	2.58	2.42	2.58	2.42	2.67				2.75
2022-23	1	Knoweldge sharing session by AE's Alumini				2.40	2.08			1.90		2.03	1.95		1.83	1.90	2.10	1.85	
	2	Visit to Sarkari Kiriya Prathamika school for NSS and AICTE Activities						2.27	2.60	1.60	2.70	2.03	2.00	1.37				1.97	
	3	Intra Institutrional Project Exhibition IIC	2.11	1.98	2.17	2.17	2.02	1.92				2.25		2.08	1.96	1.92	1.92	2.26	
	4	BON VOYAGE CULTURAL ACTIVITY						1.90	1.98	2.15	1.83	2.55	2.05	2.03					
	5	Empowering students and Faculty for progressive Teaching and Research	1.90	2.15	2.35	2.15			2.33		1.00	0.95	1.08		0.93	1.00	1.08	1.10	
Total attainment			21.41	18.75	18.60	26.39	23.59	17.42	26.92	25.58	22.09	29.52	15.49	22.48	24.38	19.21	16.24	18.56	
Average attainment			1.78	1.56	1.55	2.20	1.97	1.45	2.24	2.13	1.84	2.46	1.29	1.87	2.03	1.60	1.35	1.55	

*Handwritten Signature*  
**Head of the Department**  
**Aeronautical Engineering**  
**Acharya Institute of Technology**  
**Bangalore - 560 107**




**ACHARYA INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF AERONAUTICAL ENGINEERING**  
**BENGALURU - 560107**

**Batch 2019 - 2023**

Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Anoop MS	2	3		2	3	3	3	2	3	5	3	3	2	3	3	3
Anumol Bharadwaj K	3	2	3	3	2	3	3	3	3	5	3	3	3	3	3	3
Anchara M	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3
Aneesh Nehru Jyothula	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3
A S SHASHANK	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3
Supriya Babu	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3
Basavaraj T	3	3	3	3	3	3	3	3	3	5	3	2	3	3	3	3
Harsh Joshi	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3
Aditya Sanjay Halornekar	2	2	2	3	2	1	3	2	3	5	2	3	2	1	2	2
Akram Basha	2	2	2	2	2	2	3	3	3	4	2	3	2	2	2	2
Avantika S Gaikwad	2	2	2	2	2	2	2	2	2	5	2	2	2	2	2	2
Gagandeep DT	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3
D Ranjitha	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2
Avantika S Gaikwad	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2
Darwin Kantharaj Vincent	2	2	1	2	1	2	2	1	1	2	2	1	2	1	2	1
Dipak jaiswal	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3
Leah George Manapurathu	2	2	2	2	2	3	2	2	2	4	2	3	2	2	2	3
Madhushree NP	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3
Thirumalegowda M K	2	3	3	2	2	3	2	3	3	4	2	3	3	2	2	3
Nehashree C H	2	2	2	2	2	2	2	2	2	3	1	1	2	2	2	2

Munna Kumar Yadav	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3
MUZZAMMIL AHMED N	3	3	2	3	3	3	3	3	2	4	3	3	2	3	3	3
Manjunath S Mugadayyanamath	2	2	2	2	2	2	2	3	2	4	3	2	2	2	2	2
Mohan G M	2	2	1	2	2	2	2	2	2	3	2	2	2	2	2	2
Prajwal Suares	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Princia Jenifer Lewis	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Radheshyam Thakur	3	3	3	3	3	3	3	3	3	5	3	3	2	2	2	2
R.Mohith Vamsi Prasad	3	3	2	2	3	3	3	3	3	3	2	2	3	2	2	3
Prashanth R	3	3	3	3	3	3	3	3	3	4	3	2	3	3	3	3
Somu Parappa Hangaragi	2	2	2	2	2	2	1	1	2	3	2	2	2	1	1	2
Sahas S	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3
Shashank Upparige N R	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3
SHARATH KUMAR R	2	2	2	2	3	2	2	2	2	3	2	2	2	2	2	2
Yashraj Surendra Sankhalkar	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Manish patel	2	2	1	2	2	1	2	2	2	1	1	1	2	1	2	2
Thrishul N	2	2	3	3	3	2	3	2	3	4	3	3	2	2	2	3
Vishal	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3
BIPRAJIT DAS	2	1	2	1	2	2	1	2	2	2	2	2	2	3	3	3
Total	91	91	86	91	92	92	93	91	94	140	91	91	92	89	93	97
Total attainment	2.39	2.39	2.26	2.39	2.42	2.42	2.45	2.39	2.47	3.68	2.39	2.39	2.42	2.34	2.45	2.55


  
**Head of the Department**  
**Aeronautical Engineering**  
**Acharya Institute of Technology**  
**Bangalore - 560 107**

**Acharya Institute of Technology**  
**Department of Aeronautical Engineering**  
**Attainment of PO & PSO**  
**2019 Batch**

Direct attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CIE+SEE+CES	2.2	2.2	1.4	1	0.9	0.4	0.2	0.2	0.7	0.9	0.3	2.2	1.7	1.3	1.1	0.6

Indirect attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Activities	1.78	1.56	1.55	2.20	1.97	1.45	2.24	2.13	1.84	2.46	1.29	1.87	2.03	1.60	1.35	1.55
Program exit survey	2.39	2.39	2.26	2.39	2.42	2.42	2.45	2.39	2.47	3.68	2.39	2.39	2.42	2.34	2.45	2.55
Activities (70 % )	1.25	1.09	1.09	1.54	1.38	1.02	1.57	1.49	1.29	1.72	0.90	1.31	1.42	1.12	0.95	1.08
Program exit survey (30 %)	0.72	0.72	0.68	0.72	0.73	0.73	0.73	0.72	0.74	1.11	0.72	0.72	0.73	0.70	0.73	0.77
Total indirect attainment	1.97	1.81	1.76	2.26	2.10	1.74	2.30	2.21	2.03	2.83	1.62	2.03	2.15	1.82	1.68	1.85

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Direct attainment (80%)	1.76	1.76	1.12	0.80	0.72	0.32	0.16	0.16	0.56	0.72	0.24	1.76	1.36	1.04	0.88	0.48
Indirect attainment (20%)	0.39	0.36	0.35	0.45	0.42	0.35	0.46	0.44	0.41	0.57	0.32	0.41	0.43	0.36	0.34	0.37
Total attainment	2.15	2.12	1.47	1.25	1.14	0.67	0.62	0.60	0.97	1.29	0.56	2.17	1.79	1.40	1.22	0.85

  
 Head of the Department  
 Aeronautical Engineering  
 Acharya Institute of Technology  
 Bangalore - 560 107

# Department of Biotechnology

2019-23				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Subject code	Subject	Attainment	(KB) Engineering knowledge	(PA) Problem analysis:	(Des.) Design	(Inv.) Investi gation	(Tools) Use of engineeri ng tools:	(Impacts) Impact of engineering on society	(Environment) Environment and sustainability	(Ethics) Ethics and equity:	(Team) Individual and teamwork	(Comm.) Commun ication skills	(Econ.) Economics and project management	(LL) Life- long learning:	
<b>3RD SEM</b>															
18BT31	BIOSTATISTICS	Total-ATNT	2.3	2.3											2.3
18BT32	MICROBIOLOGY	Total-ATNT	2.35	2.3		2.3	2.3	2.3	2.6	2.2	2.3				2.23
18BT33	UNIT OPERATIONS	Total-ATNT	1.67	1.72		1.84									0.9
18BT34	INTRODUCTION TO BIOMOLECULES	Total-ATNT	1.29	0.66		1.3		0.8			0.73	0.75			1.5
18BT35	CELL BIOLOGY AND GENETICS	Total-ATNT	0.58	0.58		0.88	0.7	0.7							
18BT36	PYTHON PROGRAMMING	Total-ATNT	1.67	1.72		1.84									0.9
18BTL37	MICROBIOLOGY LABORATORY	Total-ATNT	2.4	2.54	2.4	2.4	2.7							2.3	2.78
18BTL38	UNIT OPERATION LABORATORY	Total-ATNT	2.5	2.5		2.6	2.7				1.5	1.5			2.5
<b>4th SEM</b>															
18BT41	STOICHIOMETRY	Total-ATNT	0.56	0.63		0.78		0.78			0.67	0.72			0.62
18BT42	MOLECULAR BIOLOGY	Total-ATNT	2.45	2.6		2.3		2.3							2.6
18BT43	IMMUNOTECHNOLOGY	Total-ATNT	1.059	1.46		0.8		0.8			0.73	0.75			1.5
18BT44	CELL CULTURE TECHNIQUES	Total-ATNT	2.9	2.86	2.82	2.75			2.8		2.8				2.83
18BT45	BIOCHEMICAL THERMODYNAMICS	Total-ATNT	2.35	2.33		2.25		2.3							2.6
18BT46	CLINICAL BIOCHEMISTRY	Total-ATNT	1.86	1.82		1.8									2.03

18BTL47	BIOCHEMISTRY LABORATORY	Total-ATNT	2.4	2.54	2.4	2.4	2.7							2.3	2.78
18BTL48	IMMUNOTECHNOLOGY LABORATORY	Total-ATNT	2.3	2.4	2.28	2.32			2.32						2.4
<b>5th SEM</b>															
18BT51	BIO-BUISINESS AND INTREPRENEURS	Total-ATNT	1.64	1.52	1.37		1.9				2.2	2.2			
18BT52	CHEMICAL REACTION ENGINEERING	Total-ATNT	1.64	1.52	1.37		1.9				2.2	2.2			
18BT53	ENZYME TECHNOLOGY AND BIOTRAN	Total-ATNT	1.64	1.52	1.37		1.9				2.2	2.2			
18BT54	GENOMICS AND PROTEOMICS	Total-ATNT	1.64	1.52	1.37		1.9				2.2	2.2			
18BT55	BIOANALYTICAL TECHNIQUES	Total-ATNT	1.72	2	2	1.8					2	2			1.9
18BT56	GENETIC ENGINEERING AND APPLICA	Total-ATNT	1.7	1.52	1.37		1.9				2.2	2.2			
18BTL57	BIOKINETICS AND ENZYME TECHNOL	Total-ATNT	1.6	1.52	1.37		1.9				2.2	2.2			
18BTL58	GENETIC ENGINEERING AND CELL CU	Total-ATNT	2.4	2.54	2.4	2.4	2.7							2.3	2.78
<b>6th SEM</b>															
18BT61	PROCESS CONTROL AND AUTOMATIC	Total-ATNT							0.059	0.66		0.8		0.8	
18BT62	BIOPROCESS EQUIPMENT DESIGN AN	Total-ATNT	1.96	1.96	1.89	2.5	2.5								1.4
18BT63	BIOINFORMATICS	Total-ATNT	1.95	1.52	1.37		1.9				2.2	2.2			
18BT64X	FOOD PROCESS ENGINEERING	Total-ATNT	2.2	1.8	1.8	1.8	1.8	1.8		1.8	2.03	2.5			1.9
18BTL66	PROCESS CONTROL AMD AUTOMATIC	Total-ATNT	1.68	1.68	2.1	1.7						1.9			1.5
18BTL67	BIOINFORMATICS LABORATORY	Total-ATNT	1.93	1.52	1.37		1.9				2.2	2.2			

18BTMP68	MINIPROJECT	Total-ATNT	1.68	1.68	2.1	1.7						1.9		2.1
	<b>7th SEM</b>													
18BT71	BIOPROCESS ENGINEERING	Total-ATNT	1.8	1.52	1.37		1.9					2.2	2.2	
18BT72	CLINICAL AND PHARMACEUTICAL BIC	Total-ATNT	1.7	1.5	1.5			1.5			2.1			
18BT73X	PROCESS EQUIPMENT AND PLANT DE	Total-ATNT	1.4	1.8				2			2	2	1.8	1.4
18BT74X	TISSUE ENGINEERING	Total-ATNT	2.13	1.52	1.37		1.9					2.2	2.2	
18BTL76	BIOPROCESS ENGINEERING LABORA	Total-ATNT	1.9	1.52	1.37		1.9					2.2	2.2	
18BTP77	PROJECT WORK PHASE -1	Total-ATNT	2.04	2.3	2		2.6	2.6	2.6	2.1	2.6	2.3	2.6	2.5
	<b>8th SEM</b>													
18BT81	REGULATORY AFFAIRS IN BIOTECH IN	Total-ATNT	2.2	2.1	1.8		1.9					2.2	2.2	
18BT821	ENVIRONMENTAL BIOTECHNOLOGY	Total-ATNT	2.01	1.68	2.1	1.7						1.9		2.2
18BTP83	PROJECT WORK PHASE-2	Total-ATNT	2.04	2.3	2		2.6	2.6	2.6	2.1	2.6	2.3	2.6	2.25
18BTI85	INTERNSHIP	Total-ATNT	2.04	2.3	2		2.6	2.6	2.6	2.1	2.6	2.3	2.6	2.25
		<b>count</b>	<b>40</b>	<b>40</b>	<b>27</b>	<b>22</b>	<b>23</b>	<b>15</b>	<b>6</b>	<b>6</b>	<b>24</b>	<b>25</b>	<b>8</b>	<b>26</b>
		<b>AVERAGE</b>	<b>1.881975</b>	<b>1.833</b>	<b>1.8022</b>	<b>1.9164</b>	<b>2.1173913</b>	<b>1.697266667</b>	<b>2.31</b>	<b>2.1</b>	<b>1.99</b>	<b>1.9688</b>	<b>2.1625</b>	<b>2.025</b>


2019-23				PSO1	PSO2	PSO3
Subject code	Subject		Attainment			
<b>3RD SEM</b>						
18BT31	BIOSTATISTICS		Total-ATNT	2.6	2.6	2.6
18BT32	MICROBIOLOGY		Total-ATNT	2.36		
18BT33	UNIT OPERATIONS		Total-ATNT	1.45		1.4
18BT34	INTRODUCTION TO BIOMOLECULES		Total-ATNT	2.6	2.6	2.6
18BT35	CELL BIOLOGY AND GENETICS		Total-ATNT	0.66		
18BT36	PYTHON PROGRAMMING		Total-ATNT	1.45		1.4
18BTL37	MICROBIOLOGY LABORATORY		Total-ATNT	2.56		
18BTL38	UNIT OPERATION LABORATORY		Total-ATNT	2.3		2.6
<b>4th SEM</b>						
18BT41	STOICHIOMETRY		Total-ATNT	2.6	2.6	2.6

18BT42	MOLECULAR BIOLOGY		Total-ATNT	2.3	2.6	2.5
18BT43	IMMUNOTECHNOLOGY		Total-ATNT	2.32	2.4	
18BT44	CELL CULTURE TECHNIQUES		Total-ATNT	2.86		2.7
18BT45	BIOCHEMICAL THERMODYNAMICS		Total-ATNT	2.4		2.38
18BT46	CLINICAL BIOCHEMISTRY		Total-ATNT	2.4	2.6	2.6
18BTL47	BIOCHEMISTRY LABORATORY		Total-ATNT	2.6	2.6	2.6
18BTL48	IMMUNOTECHNOLOGY LABORATORY		Total-ATNT	2.3	2.6	2.5
<b>5th SEM</b>						
18BT51	BIO-BUISINESS AND INTREPRENEURSHIP		Total-ATNT	2.3	2.6	2.5
18BT52	CHEMICAL REACTION ENGINEERING		Total-ATNT	2.6		2.38
18BT53	ENZYME TECHNOLOGY AND BIOTRANSFORMAT		Total-ATNT	2.6		2.38
18BT54	GENOMICS AND PROTEOMICS		Total-ATNT	2.3	2.6	2.5

18BT55	BIOANALYTICAL TECHNIQUES		Total-ATNT	1.67		1.6
18BT56	GENETIC ENGINEERING AND APPLICATIONS		Total-ATNT	2.3	2.6	2.5
18BTL57	BIOKINETICS AND ENZYME TECHNOLOGY LABO		Total-ATNT	2.3	2.6	2.5
18BTL58	GENETIC ENGINEERING AND CELL CULTURE LA		Total-ATNT	2.6		2.38
18CIV59	ENVIRONMENTAL STUDIES		Total-ATNT	2.3	2.6	2.5
<b>6th SEM</b>						
18BT61	PROCESS CONTROL AND AUTOMATION		Total-ATNT	0.6	1.9	2.1
18BT62	BIOPROCESS EQUIPMENT DESIGN AND CAED		Total-ATNT	2.5	0.9	2.23
18BT63	BIOINFORMATICS		Total-ATNT	2.3	2.6	2.5
18BT64X	FOOD PROCESS ENGINEERING		Total-ATNT	2.08		1.8
18BTL66	PROCESS CONTROL AMD AUTOMATION LABOR		Total-ATNT	0.6	1.9	2.1

18BTL67	BIOINFORMATICS LABORATORY		Total-ATNT	2.3	2.6	2.5
18BTMP68	MINIPROJECT		Total-ATNT	2.3	2.6	2.5
<b>7th SEM</b>						
18BT71	BIOPROCESS ENGINEERING		Total-ATNT	2.3	2.6	2.5
18BT72	CLINICAL AND PHARMACEUTICAL BIOTECHNOL		Total-ATNT	1.65		1.68
18BT73X	PROCESS EQUIPMENT AND PLANT DESIGN		Total-ATNT	1.67	1.7	1.4
18BT74X	TISSUE ENGINEERING		Total-ATNT	2.3	2.6	2.5
18BTL76	BIOPROCESS ENGINEERING LABORATORY		Total-ATNT	2.3	2.6	2.5
18BTP77	PROJECT WORK PHASE -1		Total-ATNT	2.3	2.6	2.5
<b>8th SEM</b>						
18BT81	REGULATORY AFFAIRS IN BIOTECH INDUSTRY		Total-ATNT	2.3	2.6	2.5
18BT821	ENVIRONMENTAL BIOTECHNOLOGY		Total-ATNT	0.6	1.9	2.1
18BTP83	PROJECT WORK PHASE-2		Total-ATNT	2.3	2.6	2.5

18BTS84	TECHNICAL SEMINAR		Total-ATNT	2.3	2.6	2.5
18BTI85	INTERNSHIP		Total-ATNT	2.3	2.6	2.5
			<b>COUNT</b>	<b>43</b>	<b>29</b>	<b>39</b>
			<b>AVERAGE</b>	<b>2.1332558</b>	<b>2.43103</b>	<b>2.3238</b>

  
 Head of The Department  
 Department of Biotechnology  
 Acharya Institute Of Technology  
 Soladevanahalli, Bangalore-560107



**Department of Computer Science and Engineering**  
**Acharya Institute of Technology**

Affiliated to VTU, Recognized by GOK and Approved by AICTE, New Delhi (Accredited by NAAC and NBA)  
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**PO Attainment for 2022 - 23 Passed Out Batch**

Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
18MAT11	Calculus and Linear Algebra	1.76	1.9										
18PHY12	Engineering Physics	2.26	1.89										2.1
18ELE13	Basic Electrical Engineering	2.15	2.16	2	2.3		2.23		1.9	2.28	2.06		2.28
18CIV14	Elements of Civil Engineering	2.05	2.1							2.07	2.17		2
18EDGL15	Engineering Graphics	2.01	2.4	2.38	2.01		2				2.21		2.38
18PHYL16	Engineering Physics Lab	2.9	2.41	2.8									
18ELE17	Basic Electrical Engineering Lab	2.57	2.65	2.71	2.93		2.6		2.2	2.67	2.59		2.94
18EGH18	Technical English-I						2.77				2.94	2.94	2.7
18MAT21	Advanced Calculus and Numerical Methods	2.46	2.48										
18CHE22	Engineering Chemistry	2.1	2.2	2.2			2.3	2.57					2.35
18CPS23	Computer Concepts and Programming	2.05	2.02	2.1									
18ELN24	Basic Electronics	1.78	1.7	1.7									
18ME25	Elements of Mechanical Engineering	2.79	2.8					2.1					2.3
18CHEL26	Engineering Chemistry Lab	2.44	1.67				1.6	1.6	1.63		2.5		2.5
18CPL27	Computer Programming Lab	2	2.3	2.49									
18EGH18	Technical English - II						2.63				2.8	2.5	2.5
18MAT31	Transform Calculus, Fourier Series	1.75	1.35										
18CS32	Data Structures and Applications	1.89	1.69	1.69									
18CS33	Analog and Digital Electronics	1.98	1.69	1.4	1.88								
18CS34	Computer Organization	0.87	1.13	1.08		1.6	1.4		1.5				
18CS35	Software Engineering	1.5	1.6	1.7		1.95				1.97			
18CS36	Discrete Mathematical Structures	1.95	1.6										
18CSL37	Analog and Digital Electronics Laboratory	2.8	2.97	2.27	1.5				2.3		2.3		
18CSL38	Data Structures Laboratory	2.43	2.69	2.75									



## Department of Computer Science and Engineering Acharya Institute of Technology

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18MAT41	Complex Analysis, Probability and Statistical Methods	1.9	1.76											
18CS42	Design and Analysis of Algorithms	2.06	2.3	1.99										1.7
18CS43	Operating Systems	1.7	1.81	1.7			1.75							
18CS44	Microcontroller and Embedded Systems	2.8	2.8	2.57	1.35					2.7		2.4		
18CS45	Object Oriented Concepts	1.45	1.56	1.7			1.9							1.95
18CS46	Data Communication	0.94	1.57	1.68	1.65	1.55								
18CSL47	Design and Analysis of Algorithm Laboratory	2.48	2.48	2.5										
18CSL48	Microcontroller and Embedded Systems Laboratory	2.3	2.3	1.78										
18CS51	Management, Entrepreneurship for IT industry	2.36	2.06	2.23	2.3	2.05	2.3				2.65	2.25	2.35	1.98
18CS52	Computer Networks and security	1.54	1.48	1.96	1.55	1.68	1.55	1.9			1.1	1.5	1.8	1.58
18CS53	Database Management System	1.39	1.52	1.2	1.4	1.37	2.05							
18CS54	Automata theory and Computability	1.38	1.68	1.53										
18CS55	Application Development using Python	1.55	1			1.4		1.85			1.3			
18CS56	Unix Programming	2.08	2.28	2.3	2.36	2								2.28
18CSL57	Computer Network Laboratory	2.58	2.56	2.5	2.45						1.5	1.7	1.4	1.5
18CSL58	DBMS Laboratory with mini project	1.7	1.4	1.78	1.4	1.8								
18CS61	System Software and Compilers	1.75	1.95	1.68										
18CS62	Computer Graphics and Visualization	1.91	1.85	1.89		1.5								
18CS63	Web Technology and its applications	2.4	2	2.3	2.3	2.47	2.5							2.2
18CS643	Cloud Computing and its Applications	1.2	1.4	1.4	1.8	1.8							1.8	1.4
18CS645	System Modelling and Simulation	2.5	2.5			2.3						2.97		
18CSL66	System Software Laboratory	3	3	3	3	3								
18CSL67	Computer Graphics Laboratory with mini project	2.9	2.57	2.86	2.57	2.99				2.7	2.7	2.7	2.7	2.64
18CSMP68	Mobile Application Development	2.69		2.9		2.6						2.6	2.9	2.6



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18CS71	Artificial Intelligence and Machine Learning	1.6	1.63	1.47	1.2	1.6					1.92		1.75
18CS72	Big Data Analytics	1.37	1.5	1.2	1.68	1.26	1.8			1.64	1.5		0.3
18CS734	User Interface Design	1.9	2	2.2									
18CS741	Digital Image Processing	2.3	2.5	2.12		2.4							
18CS742	Network management	2.1	2.1			2.5		1.6		2.5	2.4		
18CS744	Cryptography	2.45	2.3						2.5				2.15
18CSL76	Artificial Intelligence and Machine Learning Laboratory	2.2	2.3		2.55	2.2					2.5		2.7
18CSP77	Project Work Phase – 1	2.85	2.85	2.5	2.85	2.75	2.5		2.6	2.7	2.5	2.82	2.6
18CS81	Internet of Things	1.9	2	2.4	1.85	1.6			1.8	1.7	1.7		
18CS823	NoSQL Database	2.2	2.2	2.23	2.3	2.35	2.4			2.3	2.3	2	2.3
18CSP83	Project Work Phase –2	2.76	2.66	2.7	2.6	2.9	2.5		2.94	2.43	1.8	2.9	2.65
18CSS84	Technical Seminar					2.7	2.5		2.4	2.7	1.7	2.7	2.7
18CSI85	Internship					2.5	2.4		2.7	2.7	1.7	2.9	2.3
<b>Total PO Attainment</b>		<b>118.7</b>	<b>115.3</b>	<b>89.54</b>	<b>49.78</b>	<b>60.47</b>	<b>40.03</b>	<b>11.62</b>	<b>27.17</b>	<b>36.91</b>	<b>55.71</b>	<b>31.71</b>	<b>66.16</b>
<b>Average PO Attainment in Scale of 3</b>		<b>1.95</b>	<b>1.89</b>	<b>1.47</b>	<b>0.82</b>	<b>1</b>	<b>0.66</b>	<b>0.2</b>	<b>0.45</b>	<b>0.61</b>	<b>0.92</b>	<b>0.52</b>	<b>1.09</b>
<b>Direct Attainment - 80%</b>		<b>1.56</b>	<b>1.52</b>	<b>1.18</b>	<b>0.66</b>	<b>0.8</b>	<b>0.53</b>	<b>0.16</b>	<b>0.36</b>	<b>0.49</b>	<b>0.74</b>	<b>0.42</b>	<b>0.88</b>
<b>Average Direct PO Attainment in %</b>		<b>52</b>	<b>50.67</b>	<b>39.34</b>	<b>22</b>	<b>26.67</b>	<b>17.67</b>	<b>5.34</b>	<b>12</b>	<b>16.34</b>	<b>24.67</b>	<b>14</b>	<b>29.34</b>
<b>Indirect Attainment in Scale of 3</b>		<b>2.4</b>	<b>2.2</b>	<b>2.4</b>	<b>2.5</b>	<b>2.1</b>	<b>1.98</b>	<b>2.1</b>	<b>2.05</b>	<b>2.5</b>	<b>2.6</b>	<b>2.35</b>	<b>2.3</b>
<b>Indirect Attainment - 20 %</b>		<b>0.48</b>	<b>0.44</b>	<b>0.48</b>	<b>0.5</b>	<b>0.42</b>	<b>0.4</b>	<b>0.42</b>	<b>0.41</b>	<b>0.5</b>	<b>0.52</b>	<b>0.47</b>	<b>0.46</b>
<b>Average Indirect PO Attainment in %</b>		<b>16</b>	<b>14.67</b>	<b>16</b>	<b>16.67</b>	<b>14</b>	<b>13.34</b>	<b>14</b>	<b>13.67</b>	<b>16.67</b>	<b>17.34</b>	<b>15.67</b>	<b>15.34</b>
<b>Total Attainment</b>		<b>2.04</b>	<b>1.96</b>	<b>1.66</b>	<b>1.16</b>	<b>1.22</b>	<b>0.93</b>	<b>0.58</b>	<b>0.77</b>	<b>0.99</b>	<b>1.26</b>	<b>0.89</b>	<b>1.34</b>
<b>Total Attainment in %</b>		<b>68</b>	<b>65.34</b>	<b>55.34</b>	<b>38.67</b>	<b>40.67</b>	<b>31</b>	<b>19.34</b>	<b>25.67</b>	<b>33</b>	<b>42</b>	<b>29.67</b>	<b>44.67</b>



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### PSO Attainment for 2022 - 23 Passed Out Batch

Course Code	Course Title	PSO 1	PSO 2	PSO 3
18MAT11	Calculus and Linear Algebra			
18PHY12	Engineering Physics			
18ELE13	Basic Electrical Engineering			2.74
18CIV14	Elements of Civil Engineering			
18EDGL15	Engineering Graphics			
18PHYL16	Engineering Physics Lab			
18ELE17	Basic Electrical Engineering Lab			2.56
18EGH18	Technical English-I			
18MAT21	Advanced Calculus and Numerical Methods			
18CHE22	Engineering Chemistry			
18CPS23	Computer Concepts and Programming	2	2.4	
18ELN24	Basic Electronics	2.21		
18ME25	Elements of Mechanical Engineering		2.5	
18CHEL26	Engineering Chemistry Lab			
18CPL27	Computer Programming Lab	1.89	1.69	
18EGH18	Technical English - II			
18MAT31	Transform Calculus, Fourier Series			
18CS32	Data Structures and Applications	1.8	1.7	1.3
18CS33	Analog and Digital Electronics	1.69	1.6	
18CS34	Computer Organization	1	0.94	1.29
18CS35	Software Engineering	1.37	1.4	1.54
18CS36	Discrete Mathematical Structures			
18CSL37	Analog and Digital Electronics Laboratory	2.4	2.57	
18CSL38	Data Structures Laboratory	2.55	2.6	2.9
18MAT41	Complex Analysis, Probability and Statistical Methods			
18CS42	Design and Analysis of Algorithms	2.29	2.4	



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18CS43	Operating Systems	1.7	1.81	2.01
18CS44	Microcontroller and Embedded Systems	2.42	2.7	
18CS45	Object Oriented Concepts	1.65	1.95	1.8
18CS46	Data Communication	1.23		
18CSL47	Design and Analysis of Algorithm Laboratory	2.48	2.46	2.5
18CSL48	Microcontroller and Embedded Systems Laboratory	2.4		
18CS51	Management, Entrepreneurship for IT industry	2.1	2.29	2.28
18CS52	Computer Networks and security	1.86	1.6	
18CS53	Database Management System	1.39	1.55	1.5
18CS54	Automata theory and Computability	1.13	1.3	1.2
18CS55	Application Development using Python	1.6	1.48	
18CS56	Unix Programming	2.05		2.44
18CSL57	Computer Network Laboratory	2.58	2.4	
18CSL58	DBMS Laboratory with mini project	1.9	1.78	1.3
18CS61	System Software and Compilers	1.65	1.6	
18CS62	Computer Graphics and Visualization	1.55	1.6	1.4
18CS63	Web Technology and its applications	2.4		2.3
18CS643	Cloud Computing and its Applications	1.7	1.88	
18CS645	System Modelling and Simulation	2.3	2.4	2.4
18CSL66	System Software Laboratory	3	2.9	3
18CSL67	Computer Graphics Laboratory with mini project	2.52	2.97	2.76
18CSMP68	Mobile Application Development	2.94	2.6	2.4
18CS71	Artificial Intelligence and Machine Learning	1.55	1.4	1.45
18CS72	Big Data Analytics	1.7	1.42	
18CS734	User Interface Design	2	2	2
18CS741	Digital Image Processing	2	2.4	
18CS742	Network management	2.4		
18CS744	Cryptography	2.3	2.05	



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18CSL76	Artificial Intelligence and Machine Learning Laboratory	2.6	2.9	
18CSP77	Project Work Phase – 1	2.75	2.74	2.7
18CS81	Internet of Things	1.8		1.9
18CS823	NoSQL Database	2.5	2.6	2.5
18CSP83	Project Work Phase –2	2.7	2.5	2.6
18CSS84	Technical Seminar	2.9	2.7	2.7
18CSI85	Internship	2.7	2.6	2.7
<b>Total PSO Attainment</b>		<b>93.65</b>	<b>82.38</b>	<b>60.17</b>
<b>Average PSO Attainment in Scale of 3</b>		<b>1.54</b>	<b>1.36</b>	<b>0.99</b>
<b>Direct Attainment - 80 %</b>		<b>1.24</b>	<b>1.09</b>	<b>0.8</b>
<b>Average Direct PSO Attainment in %</b>		<b>41.34</b>	<b>36.34</b>	<b>26.67</b>
<b>Indirect Attainment in Scale of 3</b>		<b>2.1</b>	<b>2.43</b>	<b>2.05</b>
<b>Indirect Attainment - 20 %</b>		<b>0.42</b>	<b>0.49</b>	<b>0.41</b>
<b>Average Indirect PSO Attainment in %</b>		<b>14</b>	<b>16.34</b>	<b>13.67</b>
<b>Total Attainment</b>		<b>1.66</b>	<b>1.58</b>	<b>1.21</b>
<b>Total PSO Attainment in %</b>		<b>55.34</b>	<b>52.67</b>	<b>40.34</b>

*Reshmi*

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Summary of PO and PSOs Attainment for the Batch: 2019																	
Graduation Period: 2019-to-2023		Scheme			2018		No.of Courses					50		PSOs			
CID	Title of Course	Programme Outcome(PO)s															
		1	2	3	4	5	6	7	8	9	10	11	12				
C201	Transform Calculus, Fourier Series and Numerical	1.4	1.6														
C202	Strength of Materials	1.3	1.7		1.1									1.1	0.95	1.04	0.9
C203	Fluid Mechanics	1.2	2.05	1.04		0.75		1		0.8				1.35	0.86	1.45	1.5
C204	Building Materials and Construction	2.0						1.95					1.76	1.65	1.05		
C205	Basic Surveying	2.1	2.13	1.24		1.1		1					1	1.46	1.65		
C206	Engineering Geology	2.1	2.15	0.4	0.55	1.1	0.65	0.35					0.56	1	1.21		
C207	Computer Aided Building Planning & Drawing	2.5	2.19			2.44				2.1			2.11	2.14	2.34		
C208	Building Materials Testing Laboratory	2.7	2.14	2.05	2.11	1.85	1.65	1.99	1.76	1.35	1.33	0.95	1.85	2.01	2.11		
C211	Complex Analysis, Probability And Statistical Met	1.8	2.01														
C212	Analysis of Determinate Structures	1.3	1.8											1.7	1.5	1.3	1.8
C213	Applied Hydraulics	1.4	1.65	1.34		0.8		1		0.75				1.1	1.3	1.24	1.01
C214	Concrete Technology	1.4	2.1	1.45	2.1	1.9	1.3	2.15					1.64	1.67	1.35		
C215	Advanced Surveying	1.5	2.1	2.05	0.6				1.1				1.3	1.25	1.3		
C216	Water Supply & Treatment Engineering	1.8	2.05	2.11	1.5			2.1					0.95	1.02	1.3		
C217	Engineering Geology Laboratory	2.6					2.1	2.33			2.05		1.21		2.1		
C218	Fluid Mechanics and Hydraulic Machines Laborato	2.6	2.11					1.8					1.22	0.95	1.95		
C301	Construction Management & Entrepreneurship	1.3	1.8	0.9										1.33	1.54		
C302	Analysis of Indeterminate Structures	1.6	1.84												0.88	0.75	1
C303	Design of RC Structural Elements	1.4	1.3	1.21	0.56	0.45							1.1	1.3	0.9	1.2	1.3
C304	Basic Geotechnical Engineering	1.5	1.65	1.55										1.25	0.75	0.95	1.5
C305	Municipal Wastewater Engineering	1.8	1.91	1.83	1.05			1.55					0.94		1.11		
C306	Highway Engineering	1.7	1.85	1.04	1.01	0.85	1			1.06	1.01	0.76	1.01	0.8	1.1	0.8	0.95
C307	Surveying Practice	1.8	1.45	0.95				1.96	1.85	2.2					1.65		
C308	Concrete and Highway Materials Laboratory	2.7		1.92			1.21	1.67	1.22						1.27		
C309	Environmental Studies	2.7	2.33				1.3	2.1	1.2					0.95	1.32		
C311	Design of Steel Structural Elements	1.0	1.84	2										1.32		1.54	1.5
C312	Applied Geotechnical Engineering	1.4	1.6	1.65	1.36	0.84								1.01		0.79	0.88

Summary of PO and PSOs Attainment for the Batch: 2019																	
Graduation Period: 2019-to-2023		Scheme			2018			No.of Courses			50			PSOs			
CID	Title of Course	Programme Outcome(POs)												PSOs			
		1	2	3	4	5	6	7	8	9	10	11	12				
C313	Hydrology and Irrigation Engineering	1.8	2.04	1.7				0.75						2.12	1.65	0.94	1.01
C314	Solid Waste Management	2.2						2.01					1.45		1.95		
C316	Railway, Harbours, Tunnelling & Airports	1.7	1.76	0.85			0.95	1.25	1.07				1.65	1.03			
C317	Occupational Health & Safety	2.5	2.44	1	1		2.01	0.54	0.86	1	0.5		1.1	1.7	1.9		
C318	Software Application Laboratory	2.2	1.95	2.54		2.35	1.95		2.34	1.68		2.3	1.91	1.65			
C319	Environmental Engineering Laboratory	2.1	2.5	2.15	2.34	2.05	1.8	2	1.5	2.3	2.1		1.5	0.76	1		
C320	Extensive Survey project	2.0	1.87			2	2.12	1.75	1.95		2.01	1.9	1.96	1.95	2.35	1.5	2
C401	Quality Surveying and Contract Management	1.6	1.95	1	1.21		0.95					0.76	1.04	1.56	1.41		
C402	Design of RCC and Steel Structures	1.9	1.6	0.54					1.2				1.3	0.95		1.78	1.64
C403	Air Pollution and Control	2.1	1.8				1.65	1.96					1.67	2.06			
C404	Ground Water Hydraulics	2.0	2.16	1.84	1.95			1.7	1				0.95	1.3		1.9	0.94
C406	Design of Hydraulic Structures	1.8	1.94	1.25	1.95			1.45						0.96	1.76	1.67	1.85
C407	Urban Transport Planning	1.85	1.9				0.96					0.78			1.3		
C408	Environmental Protection and Management	1.9	1.86			1.67	1.76	0.67	0.74	0.1	1.7		1.95		1.9		
C409	Computer Aided Detailing of Structures	2.4	2.25	2.65			1.5	1.9	1.9				2.04	2.45	1.06		
C410	Geotechnical Engineering Laboratory	2.5	2.24	1.9	2.15	2.05	2.01	1.96	1.85	1.85	1.87		2.01		2.45		
C411	Project Work Phase - 1	2.4	2.67	0.9	0.7	1.5	0.7	0.94	1.85	2.43	1.25	2.85	2.05	2.66	1.05	1.95	2.23
C412	Design of Pre-stressed Concrete	1.8	1.78	2.1									0.85	1.85	0.96	1.8	1.9
C413	Rehabilitation & Retrofitting	1.67	1.77	1.56			1.23		1.21			0.84		0.57			
C414	Pavement Design	1.95	1.44	1.76	1.85				1.05					2.05	1.75	1.95	1.67
C415	Project Work Phase - 2	2.67	2.84	0.9	1.2	1.2	0.8	1.2	2.12	2.23	1.25	2.34	2.33	2.45	1.45	1.76	1.85
C416	Technical Seminar	2.22					1.87	2.06	1.96				1.02	1.44	1.96		
C417	Internship	2.34	2.14			1.94	2.01	1.96	2	1.76	2.34		2.14	1.45			
Total PO Attainment		95.3	88.3	49.4	26.3	26.8	33.5	47.1	31.7	21.6	15.1	13.5	45.6	57.3	57.4	26.3	25.2
Average PO Attainment in Scale of 3		1.91	1.77	0.99	0.53	0.54	0.67	0.94	0.63	0.43	0.30	0.27	0.91	1.15	1.15	0.53	0.50
DIRECT ATTAINMENTS - 80 % (CIE+SEE+CES)		1.53	1.41	0.79	0.42	0.43	0.54	0.75	0.51	0.35	0.24	0.22	0.73	0.92	0.92	0.42	0.40
Average PO Attainment in %		51	47	26	14	14	18	25	17	12	8	7	24	31	31	14	13
Average Indirect PO Attainment in Scale of 3		2.45	2.35	2.25	2.36	2.75	2.58	2.47	2.96	2.85	2.76	2.74	2.23	2.14	2.55	2.75	2.63
INDIRECT ATTAINMENTS - 20% (Activities + Exit Survey)		0.49	0.47	0.45	0.47	0.55	0.52	0.49	0.59	0.57	0.55	0.55	0.45	0.43	0.51	0.55	0.53
Average Indirect PO Attainment in %		16.33	15.7	15	15.7	18.3	17.2	16.5	19.7	19	18.4	18.3	14.9	14.3	17	18.3	17.5
TOTAL ATTAINMNET		2.02	1.88	1.24	0.89	0.98	1.05	1.25	1.10	0.92	0.79	0.76	1.18	1.35	1.43	0.97	0.93
TOTAL ATTAINMNET in %		67	63	41	30	33	35	42	37	31	26	25	39	45	48	32	31



Department of Electronics and Communication Engineering

Acharya Institute of Technology

Affiliated to VTU, Recognized by GOK and Approved by AICTE, New Delhi (Accredited by NBA)

Acharya Dr. Sarvepalli Radhakrishnan Road, Acharya P.O., Soladevanahalli, Bangalore-560107, INDIA

SUBJECTS	CO-PO ATTAINMENT 2019-2023 BATCH												No. of Courses=46		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
18MAT31	2.3	2.3													
18EC32	2.2	2.2			2.2				2.2	2.2		2.2	2.1		
18EC33	1.3	1.3							1.3	1.3		1.3	1.3		
18EC34	2.0	2.0	2.0										2.0		
18EC35	2.2	2.2			2.2				2.2	2.2		2.2		2.2	
18EC36	2.2	2.3	2.4						2.2	2.2		2.2		2.2	2.2
18ECL37	2.5	2.5							2.5	2.5		2.5	3.0		
18ECL38	2.5	2.5							2.5	2.5		2.5		2.2	2.2
18MAT41	1.8	1.8													
18EC42	2.5	2.5							2.5	2.5		2.5		2.7	
18EC43	2.5	2.5							2.5	2.5		2.5		2.0	
18EC44	2.5	2.5							2.5	2.5		2.5		2.2	2.2
18EC45	2.7	2.7							2.7	2.7		2.7			2.1
18EC46	2.0	2.0	2.0		2.0				2.0	2.0		2.0			2.1
18ECL47	2.9	2.9			2.7				2.3	2.7		2.6	1.9	2.0	
18ECL48	2.0	2.0	2.0		2.0				2.0	2.0		2.0	1.9	2.0	
18ES51	2.5	2.5							2.5	2.5		2.5			
18EC52	2.2	2.2	2.4	2.4					2.2	2.2		2.2		2.0	
18EC53	2.2	2.3	2.4						2.2	2.2		2.2			2.1
18EC54	2.1	2.1	2.1	2.1					2.1	2.1		2.1	2.5	2.5	2.5
18EC55	2.2	2.3	2.4						2.2	2.2		2.2		2.2	
18EC56	1.9	2.1	2.1	1.5	2.0									2.2	
18ECL57	1.9	2.1	2.9	2.9	2.9			2.8	2.9	2.8				2.4	
18ECL58	2.0	1.8	2.9						2.2	2.2		2.2		2.0	2.0
18EC61	2.0	1.8	2.9						2.2	2.2		2.2			2.1
18EC62	2.0	1.8	2.9						2.2	2.2		2.2			2.5

18EC63	2.0	1.8	2.9						2.2	2.2		2.2			2.1
18EC643	2.2	2.2	2.2		2.2				2.2	2.2		2.2		2.5	
18EC646	2.2	2.2	2.2	2.2	2.2				2.2	2.2		2.2			2.1
18ECL66	2.2	2.3	2.4						2.2	2.2		2.2		2.7	
18ECL67	2.0	1.8	2.9	2.9	2.9	2.9		2.8	2.9	2.8		2.9	3.0		
18ECMP68	2.0	1.8	2.9	2.9	2.9	2.9		2.8	2.9	2.8	2.2	2.9	2.1	2.1	2.1
18EC71	2.1	2.2							2.1	2.1		2.1			2.1
18EC72	2.0	1.8			2.0										2.1
18EC732	2.1	2.2							2.1	2.1		2.1			2.1
18EC733	2.4	2.4	2.4		2.4			2.4	2.4	2.4		2.4		2.9	
18EC741	1.9	2.1	2.5	2.5	2.7				2.6	2.6		2.6			2.1
18EC745	2.1	2.2							2.1	2.1		2.1			2.1
18ECL76	1.9	2.1	2.5	2.5	2.7				2.6	2.6		2.6		2.9	
18ECL77	2.1	2.2							2.1	2.1		2.1			2.1
18ECMP78	2.0	1.8	2.5	2.5	2.7				2.6	2.6		2.6	2.1	2.1	2.1
18EC81	2.0	1.8	2.5	2.5	2.7				2.6	2.6		2.6			2.1
18EC821	2.0	2.0			1.9				2.0	2.0		2.0			2.6
18ECP83	1.9	2.1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5			2.1
18ECS84	2.0	1.8	2.5	2.5	2.7				2.6	2.6		2.6			2.1
18CIE85	2.0	1.8	2.5		3.0	3.0		2.9	2.3	2.9	3.0	2.6			2.1
Direct PO Attainment	98.26	97.9	66.43	32.02	51.5	11.18	2.5	16.23	95.63	96.48	7.71	93.32	21.84	45.91	54.1
Direct PO Attainment in Scale of 3	2.14	2.13	1.44	0.70	1.12	0.24	0.05	0.35	2.08	2.10	0.17	2.03	0.47	1.00	1.18
Direct PO Attainment in %	71.2	70.9	48.1	23.2	37.3	8.1	1.8	11.8	69.3	69.9	5.6	67.6	15.8	33.3	39.2
INDIRECT ATTAINMENT OF POS	2.2	2.2	2.1	2.1	2.4	2.4	2.2	2.2		2.3	2.2	2.4	2.6	2.4	2.4
Average PO and PSO Mapping in %	73.3	73.3	70.0	70.0	80.0	80.0	73.3	73.3	0.0	76.7	73.3	80.0	86.7	80.0	80.0
Total PO and PSO Mapping in Scale of 3	2.15	2.14	1.58	0.98	1.38	0.67	0.48	0.72	1.66	2.14	0.57	2.10	0.90	1.28	1.42
Total PO and PSO Mapping in %	71.6	71.4	52.5	32.6	45.9	22.5	16.1	24.1	55.4	71.3	19.1	70.1	30.0	42.6	47.4



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**Bengaluru – 560 107**  
**Department of Electrical and Electronics Engineering**

**Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2019**

Graduation Period: 2019-to-2023		Scheme			2018			No.of Courses : 57								
CID	Title of Course	Programme Outcome(POs)										PSOs				
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101	CALCULUS AND LINEAR	1.9	1.7													
C102	ENGINEERING CHEMISTRY			1.2	1.0				0.6	1.0						
C103	BASIC ELECTRONICS	1.7	1.8													
C104	ENGINEERING CHEMISTRY LAB	1.8	1.8				1.5	1.2					0.8			
C105	TECHNICAL ENGLISH-1						0.8				1.2	0.8	1.2			
C106	ADVANCED CALCULUS AND	1.5	1.9													
C107	Engineering Physics	1.8	2.1										1.0			
C108	BASIC ELECTRICAL	1.5	1.8	1.0	1.2					1.2		1.2	0.6			
C111	ENGINEERING GRAPHICS	2.1	1.7	1.0		0.8	1.0				0.8		1.0			
C112	Engineering Physics LAB	2.4	2.1	0.9												
C113	C Programming for Problem	2.1	1.8	1.0												
C114	BASIC ELECTRICAL	2.6	1.6	1.0	0.8		0.7		0.8	1.2	1.3		0.6			
C115	Elements of mechanical engineering	1.9		1.0												
C201	Transform Calculus, Fourier Series	1.6	2.1													
C202	Electric Circuit Analysis	1.6	1.9							1.2						
C203	Transformers and Generators	1.9	1.7				1.8									
C204	Analog Electronic Circuits	1.9	1.8							1.6				1.7		
C205	Digital System Design	2.5	2.3	2.3											2.4	
C206	Electrical and Electronic Measureme	1.7	1.7	1.1	2.2	1.7	1.8				1.1	0.9	1.1			
C207	Electrical Machines Laboratory -1	2.6	1.2	0.9	0.9					1.6						
C208	Electronics Laboratory	2.5	1.5			1.1			1.3							
C211	Complex analysis, probability and	1.9	1.6													2.0

C212	Power Generation and Economics	1.9	2.0	2.0				2.0		1.9			2.1			
C213	Transmission and Distribution	2.1	1.9	1.7				2.1					2.1	2.1	2.1	2.1
C214	Electric Motors	2.2	1.8							1.2				0.8	0.7	
C215	Electromagnetic Field Theory	2.00	2.00	1.20	2.00	1.00		0.70			0.80		1.89	1.00	1.20	0.90
C216	Operational Amplifiers and Linear	1.4	1.9	1.1										1.2		
C217	Electrical Machines Laboratory -2	2.00	1.80	1.00	1.00	1.20	0.80	0.60	1.00	2.00	0.80			1.20	1.00	1.50
C218	Op- amp and Linear ICs	2.0	2.4	1.9	1.6		1.3			2.2	2.4				2.7	2.1
C301	Management and Entrepreneurship	1.8	2.1	3.0		2.0	1.0	1.0	2.0			2.0	1.0			
C302	Microcontroller	1.3	1.9	1.5		1.0	0.8	0.8		0.7			1.2		0.9	0.8
C303	Power Electronics	1.8	1.8	1.9								1.8			1.8	1.9
C304	Signals and Systems	1.8	1.6	2.0	1.2	2.0							0.8			
C305	Electrical Machine Design	1.4	1.5	1.0										0.9		
C306	High Voltage Engineering	1.8	1.4		0.7			1.2					0.6	0.6		
C307	Microcontroller Laboratory	2.3	2.3	1.0		0.9	0.8	1.0		0.7			0.7			
C308	Power Electronics Laboratory	2.1	1.8	1.2	1.8	1.8	0.9		1.8	1.8	2.0			1.1	1.0	1.0
C309	Environmental Studies(EVS)	2.6	2.1	2.3					2.1	2.4				2.1		
C311	Control Systems	2.5	2.5			2.6				2.6					2.5	
C312	Power System Analysis – 1	2.0	1.8	0.8		0.5	1.0							1.2		
C313	Digital Signal Processing	2.1	2.2	2.0	2.6	2.6	1.7		0.8	2.6	1.5			2.3	2.2	2.2
C314	Professional Elective -1 Renewable Energy Resources	2.2	2.3		2.2	2.2	2.3							2.2		
C315	Control System Laboratory	2.6	1.9		1.3	1.0									1.0	
C316	Digital Signal Processing	2.3		2.5			2.0	2.0	2.5					2.0		
C317	Mini-project	1.9	2.1	1.9	1.1			2.0						1.0	2.0	1.2
C318	Internship	2.2	2.0	1.9	2.0	1.8	3.0	2.0		2.7	2.3	1.6	2.5	2.3		
C401	Power System Analysis – 2	2.5	1.8				1.2	1.6						2.5	1.7	
C402	Power System Protection	2.6	2.1		0.8			1.3					1.3	1.3		
C403	Professional Elective - 2	2.0	1.8				0.7	1.2								
C404	Professional Elective - 3	1.9	1.9	0.2									1.3		1.3	1.1
C405	PSS laboratory	2.0	1.8			1.0										
C406	Relay & HV lab	2.2	2.3								1.4		2.0	2.4	2.6	

C407	Project Work Phase - 1	2.2	2.2	2.2	2.2	2.2	2.2		2.2	2.2	2.2		2.2	2.2	2.2	2.2
C411	Power System Operation and	1.8	1.9	1.4	1.2	1.3	1.3	1.4					1.8		1.4	1.2
C412	Professional Elective - 4	2.6	2.6	2.6	2.6						2.6		2.6	2.6		
C412	Power System Planning	1.7	1.9			0.3	0.6	1.0	1.3			0.2	0.6	0.6		
C413	Project Work Phase - 2	2.2	2.2	2.2	2.2	2.2	2.2		2.2	2.2	2.2		2.2	2.2	2.2	2.2
C414	Technical Seminar	1.5	2.0	1.0	1.2	0.7	0.8			1.2	0.6	0.7	0.5			
Total PO Attainment		112.8	103.5	53.0	33.8	32.0	32.1	23.1	18.5	34.2	23.2	9.2	33.7	37.5	33.0	22.4
Average PO Attainment in Scale of 3		2.0	1.8	0.9	0.6	0.6	0.6	0.4	0.3	0.6	0.4	0.2	0.6	0.7	0.6	0.4
<b>DIRECT ATTAINMENTS – 80% (CIE + SEE + CES)</b>		1.6	1.5	0.8	0.5	0.5	0.5	0.3	0.3	0.5	0.3	0.1	0.5	0.5	0.5	0.3
Average Direct PO Attainment in %		53.7	49.3	25.2	16.1	15.2	15.3	11.0	8.8	16.3	11.1	4.4	16.1	17.9	15.7	10.7
Average Indirect PO Attainment in Scale of 3		2.51	2.77	2.1	2.48	2.03	2.67	2.28	2.19	2.43	2.1	2.2	2.53	2.46	2.21	2.56
<b>INDIRECT ATTAINMENTS – 20% (Activities + Exit Survey)</b>		0.50	0.55	0.42	0.50	0.41	0.53	0.46	0.44	0.49	0.42	0.44	0.51	0.49	0.44	0.51
Average Indirect PO Attainment in %		16.7	18.5	14.0	16.5	13.5	17.8	15.2	14.6	16.2	14.0	14.7	16.9	16.4	14.7	17.1
<b>TOTAL ATTAINMENT</b>		2.11	2.03	1.18	0.98	0.86	0.99	0.79	0.70	0.98	0.75	0.57	0.99	1.03	0.91	0.83
<b>TOTAL ATTAINMENT in %</b>		70.4	67.8	39.2	32.6	28.8	33.1	26.2	23.4	32.5	25.1	19.0	32.9	34.3	30.4	27.8

  
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ACHARYA INSTITUTE OF TECHNOLOGY

Bengaluru – 560 107

Department of Information Science & Engineering


Summary of Average Mapping of COs to POs, for the Batch: 2020

Graduation Period: 2019-to-2023		Scheme		2018										No.of Courses : 61	
CID	Title of Course	Programme Outcome(PO)s												PSOs	
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C101	Calculus And Linear Algebra	3.0	2.0										2.0		
C102	Engineering Chemistry	2.0	1.0				1.0	1.0					1.0		
C103	C Programming For Problem Solving	1.0	2.0			1.0						1.0	1.0		1.0
C104	Basic Electronics	3.0	2.0											3.0	
C101	Elements Of Mechanical Engineering	3.0	1.0					1.0					1.0		2.0
C106	Engineering Chemistry Lab	2.0	1.0				1.0	1.0					1.0		
C117	C Programming Laboratory	2.0	2.0			1.0						1.0	1.0	1.0	1.0
C108	Technical English-I						1.0					2.0	1.0	3.0	
C111	Advanced Calculus And Numerical Methods	3.0	2.0												
C112	Engineering Physics	2.0	1.0										1.0		
C113	Basic Electrical Engineering	2.0	2.0				1.0						1.0	3.0	
C104	Elements Of Civil Engineering & Mechanics	3.0	2.0										1.0		3.0
C115	Engineering Graphics	1.0	2.0			2.0						1.0	2.0		
C112	Engineering Physics Lab	1.0	1.0	1.0											
C117	Basic Electrical Engineering Lab	1.0	1.0				1.0					2.0	1.0	1.0	
C118	Technical English-2						1.0					2.0	1.0	3.0	
C201	18MAT31 Transform Calculus, Fourier Series And Numerical Techniques	3.0	2.0	2.0									2.0		

C202	18CS32 Data Structures and Applications	2.1	2.0	2.0									1.9	2.0	
C203	18CS33 Analog and Digital Electronics	1.3	1.3	1.3	1.3	1.4								1.2	
C204	18CS34 Computer Organization	1.3	1.0	2.0											
C205	18CS35 Software Engineering	1.1	1.0	1.0	1.1										
C206	18CS36 Discrete Mathematical Structures	3.0	3.0	2.0									2.0		
C207	18CSL37 Analog and Digital Electronics Laboratory	2.6	2.7	2.6	2.6				2.6		2.6			2.6	2.7
C208	18CSL38 Data Structures Laboratory	2.2	2.3	2.2	2.3	2.3	2.2		2.0	2.3	2.1		2.2	2.3	
C211	18MAT41 Complex Analysis, Probability And Statistical Methods	3.0	2.0	2.0									2.0		
C212	18CS42 Design and Analysis of Algorithms	3.0	2.0	2.0	1.0										
C213	18CS43 Operating Systems	3.0	2.0	2.0		1.0							2.0	1.0	1.0
C214	18SC44 Microcontroller and Embedded Systems	2.2	2.2	2.2	2.2		2.3						2.2		
C215	18CS45 Object Oriented Concepts	2.1	2.1	2.1		2.1									
C216	18CS46 Data Communication	2.0	2.0	1.0									2.1		2.1
C217	18CSL47 Design and Analysis of Algorithm Laboratory	3.0	2.0	2.0		1.0							2.0		1.0
C218	18CSL48 Microcontroller and Embedded Systems Laboratory	1.9	2.0	2.0	1.9				1.8		1.8			1.9	1.9
C301	18CS51 Management, Entrepreneurship for IT Industry	2.1	2.1		2.2	2.0					2.1		2.1	2.0	2.0
C302	18CS52 Computer Networks and Security	1.8	2.3	1.7		1.7								1.8	2.1

C303	18CS53 Database Management System	1.4	1.4	1.4	1.3	1.3							1.3	1.4	1.4
C304	18CS54 Automata theory and Computability	1.8	1.8	1.8		1.7			1.6				1.8		1.8
C305	18CS55 Application Development using Python	1.7	1.7	1.7		1.7			1.7						1.7
C306	18CS56 Unix Programming	1.8	1.9	1.9		1.9			1.8				1.8		1.8
C307	18CSL57 Computer Network Laboratory	2.5	2.0	1.5	2.0	2.0	1.0		2.0	2.0	2.5		1.3	1.5	1.7
C308	18CSL58 DBMS Laboratory with mini project	2.6	2.6	2.6	2.6	2.6	2.6		2.6	2.6	2.6	2.6	2.6	1.6	1.6
C311	18IS61 File Structures	2.0	2.0	1.0									1.0		
C312	18IS62 Software Testing	2.0	2.0			1.0							1.0		
C313	18CS63 Web Technology and its applications	1.7	1.6	1.6		1.6							1.6		1.6
C314	18CS643 Cloud Computing and its Applications(PE)	2.6	2.7	2.7		2.8		2.3					2.6		2.6
C314	18CS651 Mobile Application Development	0.3	0.2	0.2	0.0	0.0				0.0	0.0		0.2	0.0	0.0
C316	18ISL66 Software Testing Laboratory	2.0	2.0	2.0		2.0							1.0		
C317	18ISL67 File Structures Laboratory with mini project	2.0	2.0	1.0		2.0				2.0	2.0	2.0	2.0		
C318	18ISMP68 Mobile Application Development	3.0	3.0	3.0	3.0	3.0				2.0	2.0	2.0	2.0	3.0	3.0
C401	18CS71 Artificial Intelligence and Machine Learning	2.4	2.4	2.4	2.3								2.4	2.4	2.4
C402	18CS72 Big Data Analytics	2.0	2.0	1.0									2.0	1.0	
C403	18CS731 Software Architecture and Design Patterns	3.0	2.0	2.0									2.0	1.0	1.0
C403	18CS744 Cryptography	2.6	2.6										2.6	2.6	2.6
C404	18CS75X Open Elective –B	2.0	2.0	1.0									1.0		

C406	18CS75X Open Elective –B	2.0	2.0	1.0								1.0			
C407	18CSL76 Artificial Intelligence and Machine Learning Laboratory	2.4	2.4	2.5	2.4	2.4	2.4		2.5	2.4	2.4	2.4	2.4	2.4	
C408	18CSP77 Project Work Phase - 1	2.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0	2.0	
C411	18CS81 Internet of Things	1.2	1.7	1.4	2.4								2.5	2.4	
C412	18CS822 Storage Area Networks	1.9	1.8	1.8	1.8								1.9	1.8	
C413	18CSP83 Project Work Phase - 2	3.0	3.0	3.0	3.0	3.0	2.0	2.0	1.0	3.0	3.0	3.0	2.0	2.0	
C414	18CSS84 Technical Seminar	3.0	2.0	2.0	1.0				1.0	2.0	2.0	2.0	2.0	2.0	
C412	18CSI85 Internship	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
<b>Total PO-PSO Mapping</b>		<b>127.5</b>	<b>113</b>	<b>77.6</b>	<b>39.5</b>	<b>48.5</b>	<b>22.4</b>	<b>11.3</b>	<b>24.6</b>	<b>22.3</b>	<b>37.1</b>	<b>16.6</b>	<b>86.8</b>	<b>54.2</b>	<b>61.6</b>
<b>Average PO-PSO Mapping in Scale of 3</b>		<b>2.1</b>	<b>1.8</b>	<b>1.3</b>	<b>0.6</b>	<b>0.8</b>	<b>0.4</b>	<b>0.2</b>	<b>0.4</b>	<b>0.4</b>	<b>0.6</b>	<b>0.3</b>	<b>1.4</b>	<b>0.9</b>	<b>1.0</b>
<b>Direct Attainment(80%)</b>		<b>1.7</b>	<b>1.5</b>	<b>1.0</b>	<b>0.5</b>	<b>0.6</b>	<b>0.3</b>	<b>0.1</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.2</b>	<b>1.1</b>	<b>0.7</b>	<b>0.8</b>
<b>Average Direct Attainment in %</b>		<b>55.7</b>	<b>49.3</b>	<b>33.9</b>	<b>17.3</b>	<b>21.2</b>	<b>9.8</b>	<b>4.9</b>	<b>10.7</b>	<b>9.8</b>	<b>16.2</b>	<b>7.3</b>	<b>37.9</b>	<b>23.7</b>	<b>26.9</b>
<b>Average Indirect Attainment in scale of 3</b>		<b>2.6</b>	<b>2.5</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.5</b>	<b>1.8</b>	<b>2.2</b>
<b>Indirect Attainment(20%)</b>		<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>
<b>Average Indirect Attainment in %age</b>		<b>17.5</b>	<b>16.4</b>	<b>17.7</b>	<b>17.8</b>	<b>17.6</b>	<b>17.2</b>	<b>17.6</b>	<b>17.7</b>	<b>17.7</b>	<b>17.8</b>	<b>17.5</b>	<b>16.4</b>	<b>12.0</b>	<b>14.7</b>
<b>Total Attainment</b>		<b>2.2</b>	<b>2.0</b>	<b>1.5</b>	<b>1.1</b>	<b>1.2</b>	<b>0.8</b>	<b>0.7</b>	<b>0.9</b>	<b>0.8</b>	<b>1.0</b>	<b>0.7</b>	<b>1.6</b>	<b>1.1</b>	<b>1.2</b>
<b>Total Attainment in %</b>		<b>73.3</b>	<b>65.7</b>	<b>51.6</b>	<b>35.0</b>	<b>38.8</b>	<b>27.0</b>	<b>22.5</b>	<b>28.4</b>	<b>27.4</b>	<b>34.0</b>	<b>24.7</b>	<b>54.4</b>	<b>35.7</b>	<b>41.6</b>

  
**Head of the Department**  
 Department of Information Science & Engg  
 Acharya Institute of Technology  
 Soldevanahalli, Bengaluru - 560 107



**Department of Mechanical Engineering  
Acharya Institute of Technology**

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Summary of PO and PSOs Attainment for the Batch: 2019																		
Graduation Period: 2019-to-2023		Scheme			2018			No.of Courses					48		PSOs			
CID	Title of Course	Programme Outcome(PO)s												1	2	3	4	
		1	2	3	4	5	6	7	8	9	10	11	12					
C201	TRANSFORM CALCULUS ,FOURIER SERIES AND NUMERICAL METHODS	1.9	1.9														1.9	
C202	MECHANICS OF MATERIALS	1.5	1.5			1.5				1.5	1.4		1.5	1.5	1.6			
C203	BASIC THERMODYNAMICS	1.3	1.3					1.3			1.3		1.3	1.3	1.4			
C204	MATERIAL SCIENCE	2.3											2.3			2.3		
C205	METAL CUTTING AND FORMING	2.6	2.4										2.5			2.5		
C206	COMPUTER AIDED MACHINE DRAWING	1.5				1.5					1.5		1.5	1.5		1.5		
C207	MATERIAL TESTING LABORATORY	2.1	2.1	2.1	2.1		2.2		2.2	2.1	2.1		2.1	2.1	2.1		2.1	
C208	WORKSHOP AND MACHINE SHOP PRACTICE	2.3	2.3	2.3			2.3			2.3	2.2		2.3			2.3		
C211	COMPLEX ANALYSIS ,PROBABILITY & STATISTICAL METHODS	2.3	2.3														2.3	
C212	APPLIED THERMODYNAMICS	2.7	2.7					2.7			2.7		2.7	2.7	2.7			
C213	FLUID MECHANICS	2.8	2.5						2.6				2.6	2.7	2.7			
C214	KINEMATICS OF MACHINES	1.6	1.5	1.7							1.6		1.6	1.6	1.5	1.6		
C215	METAL CASTING AND WELDING	2.8											2.8	2.9		2.8		
C216	MECHANICAL MEASUREMENTS AND METROLOGY	2.3	2.3	2.3							2.3		2.3			2.5	2.3	
C217	MECHANICAL MEASUREMENTS AND METROLOGY LABORATORY	2.4	2.5	2.4	2.8	2.8	2.5		2.1	2.8	2.3		2.4			2.5	2.4	
C218	FOUNDRY, FORGING, AND WELDING LABORATORY	2.5	2.5	2.5			2.6		2.6	2.5			2.5			2.5		
C301	MANAGEMENT AND ECONOMICS	1.8	1.7										1.8				1.8	
C302	DESIGN OF MACHINE ELEMENTS- I	0.7	1.3	1.3		1.3					0.8		1.0		0.7	0.5		
C303	DYANMICS OF MACHINES	1.3	1.2	1.3									1.3		1.4			
C304	TURBOMACHINES	1.1	1.4										1.4	1.5	1.4			
C305	FLUID POWER ENGINEERING	0.7	1.1	0.5	0.6								0.7	0.5	0.7	0.6		
C306	OPERATIONS MANAGEMENT	0.9	0.9	0.7	0.7	0.5	0.8	0.8	0.9			0.8	0.6	0.6	0.9	0.7		
C307	FLUID MECHANICS/MACHINES LABORATORY	2.6	2.6	2.6			2.7		2.7	2.6			2.5			2.5		
C308	ENERGY CONVERSION LABORATORY	2.2	2.2	2.4	2.6		2.1		1.5	2.6	2.3		2.3	2.4	2.3			
C309	ENVIRONMENTAL STUDIES	2.4	2.3				2.5	2.0	2.2					2	2.3		2.4	
C311	FINITE ELEMENT METHODS	1.4											1.6		1.4			

Summary of PO and PSOs Attainment for the Batch: 2019																	
Graduation Period: 2019-to-2023		Scheme			2018			No.of Courses			48			PSOs			
CID	Title of Course	Programme Outcome(PO)s												PSOs			
		1	2	3	4	5	6	7	8	9	10	11	12				
C312	DESIGN OF MACHINE ELEMENTS-II	1.7	1.7									1.7	1.7			1.7	
C313	HEAT TRANSFER	0.6	0.6										0.6	0.6	0.6		
C314	NON-TRADITIONAL MACHINING	2.2	2.4										2.2			2.2	
C314	COMPOSITE MATERIAL TECHNOLOGY	2.0	2.0	2.1									2.0			2	
C316	COMPUTER AIDED MODELLING AND ANALYSIS	2.2	2.2	2.2	2.2	2.2	2.2		2.2	2.2	2.2		2.2	2.2			2.2
C317	HEAT TRANSFER LAB	2.5	2.4	2.5	2.4		2.4		2.4	2.4	2.4		2.5	2.5	2.4		2.4
C318	MINI PROJECT	2.8	2.8			2.8				2.8			2.8	2.8	2.8	2.8	
C401	CONTROL ENGINEERING	2.1	2.0	2.1							2.1		2.1			2.1	
C402	COMPUTER AIDED DESIGN AND MANUFACTURING	1.6		1.9									1.7	1.8			
C403	TOTAL QUALITY MANAGEMENT	2.0	2.0	2.0		2.0							2.0		2	2	
C403	OPERATIONS RESEARCH	2.1	2.2	2.2		2.2							2.1		2.1	2.2	
C404	ADDITIVE MANUFACTURING	2.3	2.4	2.4		2.4							2.3		2.3	2.4	
C404	MECHATRONICS	1.6	1.6	1.5							1.5		1.5	1.6	1.4		
C406	COMPUTER INTEGRATED MANUFACTURING LAB	2.5			2.6								2.5	2.5			2.6
C407	DESIGN LAB	2.9	2.9	2.9	2.8		2.9		2.8	2.8	2.9		2.9	2.9	2.9		2.9
C408	PROJECT WORK PHASE-1	2.8	2.8			2.8				2.8			2.8	2.8	2.8	2.8	
C411	ENERGY ENGINEERING	1.9	1.7										1.9	1.9	1.9		
C412	TRIBOLOGY	1.2	1.1	1.1	1.1	1.1	1.1	1.1			1.1		1.1		1.2	1.2	1.1
C412	AUTOMOBILE ENGINEERING	1.9	1.9	1.9		1.9					1.9		1.9	2		2	
C413	PROJECT PHASE II	2.1	2.3			2.1				2.0			2.1	2.1	2.1	1.9	
C414	TECHNICAL SEMINAR PRESENTATION	2.7	2.7	2.7		2.7	2.7		2.7	2.7	2.7	2.7	2.7	2	2		
C415	INTERNSHIP	2.9	2.8						2.8	2.8	2.8		2.8	2.7	2.7	2.7	2.7
Direct	<b>Total PO and PSO Attainment</b>	96.9	86.9	51.3	19.9	30	29	7.91	29.8	37	40.4	5.19	90.4	53.7	52.3	52.8	29.1
	<b>Average PO and PSO Attainment in Scale of 3</b>	2.02	1.81	1.07	0.41	0.63	0.60	0.16	0.62	0.77	0.84	0.11	1.88	1.12	1.09	1.10	0.61
	<b>Average PO and PSO Attainment in %</b>	67	60	36	14	21	20	5	21	26	28	4	63	37	36	37	20
Indirect	<b>Average PO and PSO Attainment in Scale of 3</b>	2.1	1.3	1.2	1.1	2	1.8	1.3	1.7	2.1	1.3	1.1	1.9	1.4	1.1	0.9	1.4
	<b>Average PO and PSO Attainment in %</b>	70	43	40	37	67	60	43	57	70	43	37	63	47	37	30	47
Overall	<b>Average PO and PSO Attainment in Scale of 3</b>	2.03	1.71	1.09	0.55	0.9	0.84	0.39	0.84	1.04	0.93	0.31	1.89	1.18	1.09	1.06	0.77
	<b>Average PO and PSO Attainment in %</b>	67.8	56.9	36.5	18.4	30	28.1	13.1	27.9	34.6	31.1	10.2	62.9	39.2	36.4	35.3	25.5

  
**HEAD OF THE DEPARTMENT**  
 Mechanical Engg.  
**ACHARYA INSTITUTE OF TECHNOLOGY**



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Mechatronics Engineering

**Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2023**

Graduation Period: 2019-to-2023		Scheme								2018				No.of Courses : 59			
CID	Title of Course	Programme Outcome(POs)										PSOs					
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	
C101	CALCULUS AND LINEAR ALGEBRA	2.00	2.00														
C102	ENGINEERING CHEMISTRY	1.80	1.70				1.60	1.50					1.90				
C103	C PROGRAMMING FOR PROBLE SOLVING	1.56	1.50	1.50											1.80		
C104	BASIC ELECTRONICS	1.63	1.50												1.60		
C105	ELEMENTS OF MECHANICAL ENGINEERING	1.40	1.20					1.40					1.27	2.30			
C106	ENGINEERING CHEMISTRY LAB	2.66	2.56				2.70	2.36					2.48				
C107	C PROGRAMMING LAB	2.40	2.68	2.52											1.20		
C108	TECHNICAL ENGLISH-1						1.07					1.07	1.07	1.07			
C111	ADVANCED CALCULUS AND NUMERICAL METHODS	2.77	2.77														
C112	ENGINEERING PHYSICS	2.30	2.30										2.30	1.40	1.40	1.10	
C113	BASIC ELECTRICAL ENGINEERING	2.01	2.00	2.06	2.06	2.11	2.10	2.09	2.10	2.08	2.08	2.11	2.09		1.20		
C114	ELEMENTS OF CIVIL ENGINEERING	1.65	1.68							1.59	1.61		1.59				
C115	ENGINEERING GRAPHICS	2.65	2.65	2.70		2.65	2.70					2.65		2.65	2.20		
C116	ENGINEERING PHYSICS LAB	2.00	2.30	2.40										1.30	1.40		
C117	BASIC ELECTRICAL ENGINEERING LABORATORY	2.74	2.85	2.80	2.80		2.30		2.30	2.85	2.56		2.66		1.10		
C118	TECHNICAL ENGLISH-2						1.78					1.78	1.78	1.78			
C201	TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUES	1.70	1.70														
C202	MATERIAL SCIENCE AND TECHNOLOGY	2.18	2.17	2.15									2.20		1.66		
C203	MECHANICS OF MATERIALS	2.17	2.14	2.13	2.17									2.04		1.99	
C204	CONTROL SYSTEMS	2.11	2.10	2.07	2.07									1.90	1.90		
C205	ANALOG AND DIGITAL ELECTRONICS	2.50	2.50	2.50								2.50			1.50	1.50	
C206	COMPUTER ORGANIZATION	2.86	2.84	2.89	2.84	2.88							2.86		2.40		
C207	MACHINE SHOP AND MATERIAL TESTING LAB	2.49	2.44	2.43	2.40									2.49	2.55	2.55	
C208	ANALOG AND DIGITAL ELECTRONICS LAB	2.62	2.62	2.62			2.62			2.62	2.62	2.62	2.62		2.62	2.62	
C211	COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS	2.70	2.70														
C212	FLUID MECHANICS AND MACHINES	2.16	2.14	2.13	2.15									2.29		2.30	
C213	MICROCONTROLLER	2.86	2.84	2.89	2.84	2.88							2.86		2.27	2.80	
C214	MANUFACTURING TECHNOLOGY	2.37	2.32	2.50	2.43	2.20	2.50	2.50					2.50	2.03	2.30	2.10	
C215	THEORY OF MACHINES	2.14	2.13	2.10	2.10									2.47		2.45	
C216	INSTRUMENTATION AND MEASUREMENTS	2.15	2.13		2.10										2.15	2.15	
C217	FM AND PNEUMATIC LABORATORY	2.03	2.07	2.05										2.68		2.68	
C218	MICROCONTROLLER LABORATORY	2.70	2.70	2.70											2.70	2.70	
C301	TECHNOLOGICAL INNOVATION MANAGEMENT AND ENTREPRENEURSHIP	2.02	2.04							2.00	2.00	2.03	2.00				
C302	DESIGN AND ANALYSIS OF MACHINE ELEMENTS	1.83	1.82	1.73	1.76								1.65	2.26		2.23	
C303	VIRTUAL INSTRUMENTATION	2.42	2.38	2.41	2.33	2.40								2.60	2.61	2.60	
C304	HYDRAULICS AND PNEUMATICS	1.89	2.00	1.98	2.00		2.00							2.40	2.40	2.40	
C305	MICRO AND SMART SYSTEMS TECHNOLOGY	1.90		1.90													
C306	WIRELESS NETWORKS & COMMUNICATIONS	2.78	2.80	2.78	2.76	2.77									2.80		
C307	VIRTUAL INSTRUMENTATION-LABORATORY	2.48	2.53	2.50	2.60	2.50								2.89	2.89	2.89	
C308	MSST-LABORATORY	2.16	2.17	2.16									2.13	2.30	2.30	2.28	
C311	PLC & SCADA	2.86	2.84	2.86	2.84	2.85									2.18	2.18	
C312	POWER ELECTRONICS	1.73	1.73	1.76	1.73	1.75									2.97	2.97	
C313	COMPUTER AIDED MACHINE DRAWING	2.30	2.28	2.28	2.30	2.29								2.49	2.50	2.53	
C314	SATELLITE COMMUNICATION	2.80	2.80	2.80	2.80		2.80						2.80	2.90	2.90	2.90	
C315	PLC AND SCADA- LABORATORY	2.81	2.75	2.80	2.79	2.78									2.30	2.30	
C316	POWER ELECTRONICS - LABORATORY	2.90			2.90										2.90		
C317	MINI-PROJECT	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.98	2.98	2.95	2.96	2.98	2.48	2.48	2.48	

C401	INDUSTRIAL ROBOTICS	2.23	2.32	2.28	2.43	2.43					2.30		2.50	2.25	2.68	2.76	2.74
C402	THERMAL ENGINEERING	2.50	2.50	2.50	2.50										2.60		2.60
C403	REAL TIME SYSTEMS	2.05	2.00	2.05	1.88											2.83	2.83
C404	ARTIFICIAL INTELLIGENCE	2.13	2.14	2.14	2.14	2.10										1.50	1.50
C405	ROBOTICS LAB	2.90		2.90	2.90								2.90	2.90	2.90	2.90	2.90
C406	THERMAL-LABORATORY	2.52	2.53	2.57	2.53										2.04	2.90	2.23
C407	PROJECT WORK PHASE - I	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.30	2.30	2.30
C411	AUTOMOTIVE ELECTRONICS & HYBRID VEHICLES	2.05	2.02	2.02												2.72	2.66
C412	COMMUNICATION SYSTEM	2.58	2.58	2.58	2.58	2.57										2.85	2.85
C413	PROJECT WORK PHASE - II	2.77	2.77	2.77	2.64	2.77	2.76	2.80	2.85	2.82	2.90	2.90	2.84	2.68	2.68	2.68	2.68
C414	TECHNICAL SEMINAR	2.70	2.70	2.70	2.70					2.70	2.70				2.30	2.30	2.30
C415	INTERNSHIP	2.75	2.75	2.75		2.75	2.80		2.90	2.60	2.90	2.80	2.80	2.75	2.75	2.75	2.75
DIRECT ATTAINMENT		1.73	1.66	2.20	2.94	2.31	2.88	2.26	2.75	2.54	2.73	2.84	2.36	2.46	2.82	2.15	
INDIRECT ATTAINMENT		2.50	2.50	2.50	2.50	2.50	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.50	2.50	2.50	
Average of Total PO Attainment scale (0-3)		1.88	1.82	2.26	2.85	2.35	2.80	2.25	2.64	2.47	2.62	2.71	2.33	2.46	2.76	2.22	
Average of Total PO Attainment %		62.80	60.80	75.32	95.07	78.31	93.47	74.93	87.89	82.40	87.43	90.40	77.60	82.14	91.86	74.06	

**HEAD OF THE DEPARTMENT**  
**MECHATRONICS ENGINEERING**  
 Acharya Institute of Technology



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Master of Business Administration

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2021**


Graduation Period: 2021-to-2023		Scheme		2020		No.of Courses		35	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C101	MANAGEMENT & ORGANIZATIONAL BEHAVIOUR (20MBA11)	2.7	2.25	2.1	2.1	2.51	1.5	2.025	2.025
C102	MANAGERIAL ECONOMICS (20MBA12)	2.52	2.52		2.1		1.8	2.16	2.52
C103	ACCOUNTING FOR MANAGERS (20MBA13)	2.7	2.1		1.8			2.25	2.25
C104	BUSINESS STATISTICS (20MBA14)	2.52	2.7		1.8		2.25	2.52	2.52
C105	MARKETING MANAGEMENT (20MBA15)	2.7	2.7	1.8	2.7	2.34	2.7	2.55	2.55
C106	MANAGERIAL COMMUNICATION (20MBA16)		2.025	1.8	2.475	2.34	1.8	1.8	1.8
C201	HUMAN RESOURCE MANAGEMENT (20MBA21)	2.475	2.025	2.1	1.8	2.6325	2.025	1.8	
C202	FINANCIAL MANAGEMENT (20MBA22)	2.7	2.16		1.8		1.8		2.7
C203	RESEARCH METHODOLOGY (20MBA23)	2.475	2.25		1.8		1.8	2.7	1.8
C204	OPERATIONS RESEARCH (20MBA24)	2.7	2.25		1.8		1.8		2.1
C205	STRATEGIC MANAGEMENT (20MBA25)	2.52	1.98	1.8	1.98		2.34		1.8
C206	ENTREPRENEURSHIP AND LEGAL ASPECTS (20MBA26)	2.4	1.8	1.8	2.25	2.34	2.4	1.8	1.8
C301	EMERGING EXPONENTIAL TECHNOLOGIES (20MBA301)		1.35		1.8	1.17	1.575	1.575	1.35
C302	Technology & Operational Strategy (20MBA302)		1.62		1.26	1.872	1.98		2.16
C303	SERVICES MARKETING (20MBAMM303)	2.4	1.5	1.35	2.1	2.34	2.4		1.35
C304	MARKETING RESEARCH & ANALYTICS (20MBAMM304)	1.8	2.475		1.575	2.0475	1.35	2.025	
C305	INVESTMENT MANAGEMENT (20MBAFM303)	1.8	2.475		1.575	2.0475	1.35	2.025	
C306	DIRECT TAXATION (20MBAFM304)	2.7	2.25		2.025		0.9	0.9	
C307	BANKING & FINANCIAL SERVICES (20MBAFM305)	2.7	2.025		1.575		1.8	0.9	2.7
C308	ADVANCED FINANCIAL MANAGEMENT (20MBAFM306)	2.7	2.7		0.9		1.8	0.9	2.7
C309	HUMAN RESOURCE ANALYTICS (20MBAHR304)	2.475	2.475		1.575	2.34	2.025	2.025	1.575
C310	ORGANISATION STUDY (20MBAOS307)	2.475	2.025	1.8	2.025	2.0475	2.25	1.125	
C401	B2B MARKETING MANAGEMENT (20MBAMM401)	2.55	2.025	1.56	1.575	1.755	1.125	1.35	
C402	LOGISTICS AND SUPPLY CHAIN MANAGEMENT (20MBAMM402)	2.55	2.025	2.76	2.025	2.6325	2.7	2.4	1.575
C403	DIGITAL MARKETING MANAGEMENT (20MBAMM403)	2.025	1.8	2.94	1.8	1.17	2.1	2.4	1.2



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru - 560 107  
Department of Master of Business Administration

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2021**

Graduation Period: 2021-to-2023		Scheme		2020		No.of Courses		35	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C404	STRATEGIC BRAND MANAGEMENT (20MBAMM404)		1.98	2.192	1.8	2.574	2.1	1.8	1.8
C405	RISK MANAGEMENT AND INSURANCE (20MBAFM401)	1.575	1.125	2.112	1.35	2.6325	2.025	2.025	
C406	FINANCIAL DERIVATIVES (20MBAFM402)	1.575	1.35		1.575	2.0475	2.25	2.7	2.025
C407	INDIRECT TAXATION (20MBAFM403)	2.475	2.25	1.596	1.8	2.0475	1.8	1.8	1.8
C408	MERGERS, ACQUISITIONS & CORPORATE RESTRUCTURING (20MBAFM404)	1.575	2.45	1.872	1.575	1.755	2.1	1.35	1.35
C409	CORPORATE VALUATION (20MBAFM405)	1.575	2.775	2.94	2.7	2.925	2.7	1.8	
C410	INTERNATIONAL FINANCIAL MANAGEMENT (20MBAFM406)	1.575	2.025	2.4	1.575	1.755	1.35	1.35	1.8
C411	ORGANISATIONAL LEADERSHIP (20MBAHR401)	1.8	1.575		1.125	2.0475	1.575	1.8	1.35
C412	PERSONAL GROWTH AND INTERPERSONAL EFFECTIVENESS (20MBAHR402)	1.575	1.125	2.072	2.25	1.755	2.7	2.25	
C413	PROJECT REPORT (20MBAPR407)	2.6	2.7	2.45	2.33	2.23	2	2.13	2.56
<b>Total PO PSO Attainment</b>		<b>70.91</b>	<b>72.86</b>	<b>39.444</b>	<b>64.295</b>	<b>53.3535</b>	<b>66.17</b>	<b>56.235</b>	<b>51.16</b>
<b>Average Total PO PSO Attainment (Scale : 0-3) and ( % )</b>		<b>2.03</b>	<b>2.08</b>	<b>1.13</b>	<b>1.84</b>	<b>1.52</b>	<b>1.89</b>	<b>1.61</b>	<b>1.46</b>
		<b>67.53</b>	<b>69.39</b>	<b>37.57</b>	<b>61.23</b>	<b>50.81</b>	<b>63.02</b>	<b>53.56</b>	<b>48.72</b>

  
 Head of the Department  
 Department of Master of Business Administration  
 Acharya Institute of Technology  
 Soldevanahilli, Bangalore



**Acharya Institute of Technology**  
**Department of MBA**  
**Attainment of PO & PSO**  
**BATCH 2021-23**

Direct attainment	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
CIE+SEE	2.03	2.08	1.13	1.84	1.52	1.89	1.61	1.46

Indirect attainment	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
Activities	2.69	2.54	2.56	2.59	2.38	2.28	2.81	2.24
Program exit survey	2.52	2.40	2.41	2.44	2.43	2.39	2.43	2.45
Activities (70 % )	1.89	1.78	1.79	1.81	1.67	1.60	1.97	1.57
Program exit survey (30 %)	0.76	0.72	0.72	0.73	0.73	0.72	0.73	0.73
Total indirect attainment	2.64	2.49	2.51	2.54	2.39	2.31	2.69	2.30

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>Direct attainment (80%)</b>	1.62	1.67	0.90	1.47	1.22	1.51	1.29	1.17
<b>Indirect attainment (20%)</b>	0.53	0.50	0.50	0.51	0.48	0.46	0.54	0.46
<b>Total attainment</b>	<b>2.15</b>	<b>2.16</b>	<b>1.40</b>	<b>1.98</b>	<b>1.70</b>	<b>1.97</b>	<b>1.82</b>	<b>1.63</b>
<b>Total attainment in %</b>	<b>71.64%</b>	<b>72.14%</b>	<b>46.81%</b>	<b>65.93%</b>	<b>56.61%</b>	<b>65.83%</b>	<b>60.80%</b>	<b>54.31%</b>

  
 Head of the Department  
 Department of MBA  
 Acharya Institute of Technology  
 Soldevanahalli, Bangalore-560 111



# ACHARYA INSTITUTE OF TECHNOLOGY

Affiliated to Visvesvaraya Technological University, Belagavi,  
Approved by AICTE, New Delhi, Recognized by Govt. of Karnataka and  
Accredited by NBA (AE, BT, CSE, ECE, ME, MT)

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## PO Attainment (Batch 2018-2022)



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru - 560 107  
Department of Aeronautical Engineering

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2018**

Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses										61				
Total Attainment of Programme Outcomes														Program Specific Outcomes				
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	
C101	Calculus and Linear Algebra	1.9	1.9										1.9					
C102	ENGINEERING CHEMISTRY	2.2	2				2	2					2.2					
C103	C programming for Problem Solving	1.2	1.3											1.6	1.2			
C104	BASIC ELECTRONICS	2.4	2.3											2.3		2.4		
C105	ELEMENTS OF MECHANICAL ENGINEERING	2	1.8					1.9					1.9		1.9			
C106	ENGINEERING CHEMISTRY	2.7	2.5				2.5	2.5					2.6					
C107	C PROGRAMMING LABORATORY	2.7	2.7			2.7					2.7		2.7	2.6	2.6			
C108	TECHNICAL ENGLISH-I						1.2				1.2		1.2					
C111	Calculus and Linear Algebra	1.5	1.5										1.5					
C112	Engineering Physics	2.1	2.1										2.1					
C101	Basic Electrical Engg	2.6	2.6				2.6						2.6	2.6				
C112	ELEMENTS OF CIVIL ENGINEERING AND MECHANICS	1.3	1.3										1.4		1.3			
C115	ENGINEERING GRAPHICS	2.2	2.2			2.2					2.2		2.2			2.2		
C116	ENGINEERING PHYSICS LAB	2.5	2.6										2.6					
C107	Basic Electrical Engineering Lab	2.8	2.8				2.9				2.9		2.9	2.9		2.9		
C118	TECHNICAL ENGLISH-2						1.3				1.3	1.3	1.3					
C201	TRANSFORM CALCULUS, FOURIER SERIES & NUMERICAL TECHNIQUES	1.8	1.8										1.8	1.8	1.8	1.8	1.8	
C202	Aero Thermodynamics	1.4	1.4										1.4	1.4		1.4		
C203	Mechanics of Materials	2	2	2									2	2		2		
C204	Elements of Aeronautics	1.7	1.7	1.7									1.7	1.7	1.7	1.5	1.8	
C205	Fluid Mechanics	2.2	2.2	2.2										2.2		2.2		
C206	Measurement and Metrology	2	2										2	2		2		
C207	Measurements and Metrology Lab	2.6	2.6	2.6									2.6	2.6	2.6			
C208	Machineshop Lab	2.5	2.5	2.5	2.5								2.5	2.5	2.5		2.5	
C211	COMPLEX ANALYSIS, PROBABILITY AND SAMPLING DISTRIBUTIONS	2.8	2.8										2.8	2.8	2.8	2.8	2.8	
C212	Aerodynamics - I	2.7	2.7	2.7											2.7	2.7		
C213	Aircraft Propulsion	2.7	2.7										2.7	2.7		2.7		
C214	MECHANISMS AND MACHINE THEORY	2.7	2.7	2.7	2.7								2.7	2.7	2.7			
C215	Aircraft Material science	2.9	2.9	2.9									2.9	2.9	2.9			
C216	TURBOMACHINES	2.6	2.6	2.6									2.6	2.6		2.6		
C217	Material Testing Lab	2.8	2.8										2.8	2.8				
C218	COMPUTER AIDED AIRCRAFT DRAWING	2.7	2.7	2.7	2.6	2.7							2.7	2.7	2.7			
C301	Management and Entrepreneurship								2.5	2.5	2.5	2.5	2.5					
C302	Aerodynamics - II	1.9	1.9	1.9	1.9								1.9	1.9		1.9		
C303	Aircraft Structures-I	2	1.8	1.8									2	2	2.1		2.3	
C304	Introduction to Composites	2.5	2.5	2.5	2.5								2.5	2.5		2.5		
C305	Aircraft System and Instrumentation	1.8	1.8	1.8	1.7									1.8				
C306	Theory of Vibrations	1.9	1.9	1.9							1.9		1.9	1.9	1.9		1.9	
C307	Aerodynamics Lab	2.8	2.8		2.8						2.8	2.8	2.8	2.8	2.8	2.8		
C308	Energy Conversion and Fluid Mechanics Lab	2.8	2.8		2.8						2.8	2.8	2.8	2.8	2.8	2.8		
C311	Aircraft Performance	2.7	2.7										2.7	2.7		2.7		

C312	Aircraft Structures-II	2.5	2.5	2.4									2.5	2.5		2.5	
C313	Finite Element Methods	2.9	2.9	2.9									2.9	2.9	2.9		
C314	Gas Turbine Technology	2.8	2.8		2.8								2.8	2.8	2.9	2.8	
C316	Aircraft Propulsion Lab	2.8	2.8		2.8				2.8				2.8	2.8		2.8	
C317	Machine Shop Lab	2.9	2.9	2.9	2.9								2.9	2.9			
C318	Mini Project	2.9	2.9	2.9	2.9	2.9							2.9	2.9			
C401	Aircraft Stability and Control	1.4	1.4	1.3	1.4									1.4	1.5	1.4	1.4
C402	COMPUTATIONAL FLUID DYNAMICS	1.5	1.5	1.5	1.5								1.4	1.5		1.5	
C406	Modelling and Analysis lab	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5		
C407	Flight Simulation Laboratory	2.6	2.6	2.6		2.6							2.6				2.6
C408	Project Work Phase - 1	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3
C411	Flight Vehicle Design	1.9	1.9	1.9		1.9	1.9			1.9				1.9	1.9	1.9	1.9
C412	Avionics	2.3											2.3				2.3
C413	Project Work Phase - 2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.9	2.1	1.4	1.4	2.1	2.2	2.2	2.2	2.2
C414	Technical seminar	2.5	2.6	2.5	2.6	2.6			2.6		2.6		2.6	2.5	2.5	2.5	2.5
C415	Internship	2.8	2.8	2.8		2.9	2.8		2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8
C403	Control Engineering	2.1	2	2									2.1		2.1		2.1
C403	Heat and Mass Transfer	2.4	2.3		2.4								2.3	2.4		2.4	
C404	Wind Tunnel Techniques	2.6	2.6		2.6								2.6	2.6	2.6		
C404	Guidance Navigation & Control	2.1	2.1	2.2	2.2								2.1				2.1
<b>Average Total PO PSO Attainment</b>		<b>2.33</b>	<b>2.32</b>	<b>2.33</b>	<b>2.44</b>	<b>2.55</b>	<b>2.23</b>	<b>2.30</b>	<b>2.38</b>	<b>2.53</b>	<b>2.30</b>	<b>2.36</b>	<b>2.33</b>	<b>2.38</b>	<b>2.33</b>	<b>2.31</b>	<b>2.21</b>
<b>(Scale : 0-3) and ( % )</b>		<b>78</b>	<b>77</b>	<b>78</b>	<b>81</b>	<b>85</b>	<b>74</b>	<b>77</b>	<b>79</b>	<b>84</b>	<b>77</b>	<b>79</b>	<b>78</b>	<b>79</b>	<b>78</b>	<b>77</b>	<b>74</b>

Head of the Department  
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Bangalore - 560 107



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF AERONAUTICAL ENGINEERING**  
**BENGALURU - 560107**

Batch 2018 - 2022

Academic Year	Sl No.	Event	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
2019-20	1	Invited talk - The revolutionary concept of boundary layer theory and its prevalence in Aeronautics	2.51	2.53	2.64	2.53	2.51			2.56	2.53	2.58	2.56		2.51		2.58	
	2	Educational visit to Air India Engineering Services Ltd, AIESL, Mumbai	2.57	2.57			2.52	2.50	2.61	2.59	2.57	2.52		2.61	2.59	2.59	2.61	2.59
	3	Short term training program - Computer Aided Design and Drawing	2.60	2.64	2.53	2.58	2.51		2.58	2.53	2.58	2.60			2.56	2.51		
	4	Symposium on 3 Day National Symposium on Impact of IoT on future Aerospace and Defense system	2.58	2.52	2.54	2.52	2.50		2.56	2.67	2.54	2.69			2.56	2.65		
	5	Invited talk on Glitz and Glam of Aerospace Engineering	2.50	2.65		2.53	2.50	2.55	2.45	2.55	2.58	2.63	2.55	2.60	3.00	2.65	2.55	2.65
2020-21	1	Seminar - Trends of millennials contribution and challenge in Aerospace Engineering				2.67	2.80		2.80	2.80	2.77	2.80			2.90	2.70	2.73	2.83
	2	Workshop - Foundation on practical aspects of jet engine design	2.55	2.55	0.00	2.55	2.55	0.00	2.50	2.50	2.50	2.50	2.55	2.55	2.55	0.00	2.50	0.00
	3	Webinar – Aero Engine Performance and Manufacturing Aspects	2.60	2.50	0.00	2.50	2.55	0.00	2.50	2.55	2.60	2.55	2.40	2.55	2.50	0.00	2.45	0.00
2021-22	1	Workshop on 3 day skill development workshop on deonstration of IoT fo	2.05	0.00	1.90	1.95	2.10	2.25	2.05	2.40	2.00	2.05	2.25	2.45	2.50	0.00	0.00	2.25
	2	Technical Activity -Make and Fly - Paper plane	2.11	2.61	2.11	2.50	2.11	2.50	2.11	2.39	2.11	2.44	2.50	2.50	2.33	2.56	0.00	0.00
	3	Workshop on Advanced Ansys - Workbench Training		2.72	2.86	1.92	2.61		2.56	2.31	2.28	2.19	2.22	2.22	2.64	2.72	2.72	
Total attainment			22.08	23.30	14.59	24.24	27.26	9.80	24.71	27.84	27.05	27.55	17.03	17.48	28.64	18.37	18.14	10.32
Average attainment			2.01	2.12	1.33	2.20	2.48	0.89	2.25	2.53	2.46	2.50	1.55	1.59	2.60	1.67	1.65	0.94

*Head of the Department*  
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Acharya Institute of Technology  
Bangalore - 560 107



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF AERONAUTICAL ENGINEERING**  
**BENGALURU - 560107**

**Batch 2018 - 2022**

Name	USN	AUID	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
BHUSHAN P KAPADIA	1AY18AE019	AIT18BEAE020	3	3	2	3	2	3	2	3	3	3	3	3	3	3	2	3
RAKSHITH G R	1AY17AE041	AIT17BEAE062	3	3	3	3	2	3	3	2	3	3	3	3	3	3	3	3
NIKHIL .A	1AY18AE034	AIT18BEAE042	3	3	3	3	3	3	3	3	3	3	3	2	3	2	3	3
AARON ANTHONY	1AY18AE001	AIT18BEAE058	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	3
DHANUSH C	1AY18AE016	AIT18BEAE075	3	3	2	2	3	3	3	3	2	2	2	3	3	3	3	2
AMEYA AMIT KASAR	1AY18AE004	AIT18BEAE069	3	3	3	2	3	3	3	2	3	3	3	3	3	2	3	3
NOOR MALIK	1AY18AE036	AIT18BEAE077	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
KARIMULLAH KALIMUL	1AY18AE006	AIT18BEAE033	3	2	3	3	3	2	3	3	3	3	3	3	3	3	3	3
CHAITRA SHASHIKANT	1AY18AE011	AIT18BEAE047	2	3	3	3	2	2	2	3	2	3	2	3	2	2	3	3
RAHUL HANUMANTA K	1AY18AE023	AIT18BEAE011	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3
BHARATH KUMAR.T.M	1AY18AE008	AIT18BEAE078	3	3	3	3	3	3	2	2	3	3	3	2	3	3	3	3
NAVEEN KUMAWAT M	1AY18AE033	AIT18BEAE029	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3
MAHAK KHANDELWAL	1AY18AE024	AIT18BEAE050	2	3	3	3	3	3	3	2	3	3	3	3	3	3	2	3
BRINDA N	1AY18AE009	AIT18BEAE061	3	3	3	3	3	2	3	3	2	3	3	3	3	3	3	2
CHINNATHIMMANNA G	1AY18AE014	AIT18BEAE055	2	3	3	3	2	2	2	3	2	2	2	3	3	2	3	2
POSHITH S	1AY18AE038	AIT18BEAE062	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
MAHESH BABU.G	1AY18AE025	AIT18BEAE074	2	2	3	2	3	3	3	3	3	3	3	3	2	3	2	3
CASSANDRA BAPTISTA	1AY18AE010	AIT18BEAE010	3	3	3	2	3	3	3	3	3	3	3	3	3	2	3	3
DAKKIPURAM PURUSHO	1AY18AE015	AIT18BEAE057	2	2	2	1	2	2	3	3	3	3	3	3	3	2	2	2
PRASAD CHAVAN	1AY18AE040	AIT18BEAE043	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

RAJAT SINGH TOMAR	1AY19AE406	AIT19BEAE071	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2
MANAS NAROTRA	1AY18AE026	AIT18BEAE004	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2	2
FLEMIN CJ	1AY18AE017	AIT18BEAE012	3	3	3	2	2	3	2	3	2	2	3	3	3	3	2	3
PREM RAJ	1AY18AE042	AIT18BEAE006	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3
LOKESH S	1AY19AE403	AIT19BEAE065	2	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3
MEGHA SURESH	1AY18AE027	AIT18BEAE063	2	2	3	3	2	3	3	3	3	3	3	3	2	3	2	3
HEMANTH M	1AY19AE402	AIT19BEAE069	3	3	3	3	2	3	3	3	3	3	3	2	2	3	3	3
RAKESH R P	1AY18AE044	AIT18BEAE039	3	3	3	3	3	3	3	3	2	3	3	3	3	2	3	3
MADHYAM B MESTA	1AY18AE028	AIT18BEAE014	2	2	3	3	3	3	3	2	2	2	2	2	2	2	3	3
KARTIKAY DAGER	1AY18AE020	AIT18BEAE021	2	2	3	2	2	3	3	3	3	3	3	3	3	3	3	3
ASHWIN CHANDRA M	1AY19AE400	AIT19BEAE062	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	2
RIKTA GHOSH	1AY18AE046	AIT18BEAE036	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3
MOHAMMED AFNAN	1AY18AE029	AIT18BEAE081	3	2	3	2	2	2	3	3	3	3	3	3	3	2	3	3
KARTIKEY KUMAWAT	1AY18AE021	AIT18BEAE027	3	3	2	2	3	2	2	3	3	3	3	3	3	3	3	3
CHITHRA R	1AY18AE072	AIT18BEAE092	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
SACHIN RAJ R	1AY18AE048	AIT18BEAE008	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
MOHAMMED IMRAN HU	1AY18AE030	AIT18BEAE041	3	3	2	2	2	3	2	2	3	3	3	3	3	2	2	3
CHELUVA V	1AY18AE012	AIT18BEAE064	3	3	3	2	3	3	3	3	3	3	3	3	2	2	2	2
SARVESH J YERAWAR	1AY18AE069	AIT18BEAE024	3	3	3	3	3	2	3	3	3	3	3	3	3	2	3	3
SANDHYA RANI S	1AY18AE050	AIT18BEAE082	3	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3
MONIKA H P	1AY18AE031	AIT18BEAE052	2	3	3	3	2	2	3	2	3	3	3	3	3	3	3	3
DAKKIPURAM PURUSHO	1AY18AE015	AIT18BEAE057	3	3	3	2	3	3	3	3	3	3	3	3	2	2	2	2
SARVOTTAM SINGH	1AY18AE054	AIT18BEAE059	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
MUHAMMED RAHMAN	1AY18AE032	AIT18BEAE015	2	3	2	2	2	2	3	3	3	3	3	3	3	3	2	2
KARTIKAY DAGER	1AY18AE020	AIT18BEAE021	3	3	3	2	3	3	3	3	3	2	3	2	2	2	2	2
Total			123	126	127	117	122	125	126	127	128	130	131	129	126	121	122	124
Total attainment			2.73	2.80	2.82	2.60	2.71	2.78	2.80	2.82	2.84	2.89	2.91	2.87	2.80	2.69	2.71	2.76

Head of the Department  
Aeronautical Engineering  
Acharya Institute of Technology  
Bangalore - 560 107

**Acharya Institute of Technology**  
**Department of Aeronautical Engineering**  
**Attainment of PO & PSO**  
**2018 Batch**

Direct attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CIE+SEE+CES	2.33	2.32	2.33	2.44	2.55	2.23	2.3	2.38	2.53	2.3	2.36	2.33	2.38	2.33	2.31	2.21

Indirect attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Activities	2.01	2.12	1.33	2.20	2.48	0.89	2.25	2.53	2.46	2.50	1.55	1.59	2.60	1.67	1.65	0.94
Program exit survey	2.73	2.80	2.82	2.60	2.71	2.78	2.80	2.82	2.84	2.89	2.91	2.87	2.80	2.69	2.71	2.76
Activities (70 %)	1.40	1.48	0.93	1.54	1.73	0.62	1.57	1.77	1.72	1.75	1.08	1.11	1.82	1.17	1.15	0.66
Program exit survey (30 %)	0.82	0.84	0.85	0.78	0.81	0.83	0.84	0.85	0.85	0.87	0.87	0.86	0.84	0.81	0.81	0.83
Total indirect attainment	2.22	2.32	1.78	2.32	2.55	1.46	2.41	2.62	2.58	2.62	1.96	1.97	2.66	1.98	1.97	1.48

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Direct attainment (80%)	1.86	1.85	1.86	1.95	2.04	1.78	1.84	1.90	2.03	1.84	1.89	1.86	1.90	1.86	1.85	1.77
Indirect attainment (20%)	0.44	0.46	0.36	0.46	0.51	0.29	0.48	0.52	0.52	0.52	0.39	0.39	0.53	0.40	0.39	0.30
Total attainment	2.31	2.32	2.22	2.42	2.55	2.08	2.33	2.43	2.54	2.37	2.28	2.26	2.44	2.26	2.24	2.06

  
**Head of the Department**  
**Aeronautical Engineering**  
**Acharya Institute of Technology**  
**Bangalore - 560 107**



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Biotechnology

**Summary of Direct Attainment(CIE and SEE) of Programme Outcomes for the Batch : 2018-to-2022**

Graduation Period: 2018-to-2022	Scheme	2018	No.of Courses	59
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**Direct Attainment of Programme Outcomes**

CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C101	CALCULUS AND LINEAR ALGEBRA	2.22	2.22										
C102	Engineering Physics	2.07	1.87										2.22
C103	BASIC ELECTRICAL ENGINEERING	1.63	1.51				1.33						2.27
C104	ELEMENTS OF CIVIL ENGG & MECHANICS	1.64	1.66										1.47
C105	ENGINEERING GRAPHICS	2.38	2.38			2.38							1.87
C106	ENGINEERING PHYSICS LAB	2.69	2.69								2.38		2.38
C107	BASIC ELECTRICAL ENGINEERING LABORATORY	2.93	2.93										2.69
C108	TECHNICAL ENGLISH-2						2.9				2.89		2.9
C111	ADVANCED CALCULUS AND NUMERICAL METHODS	2.06	2.06				1.93				1.93		1.93
C112	Engineering chemistry	2	1.67				1.67	1.67					2.06
C113	C PROGRAMMING FOR PROBLEM SOLVING	1.61	1.61			1.61							2
C114	Basic Electronics	1.58	1.77								1.56		1.56
C115	ELEMENTS OF MECHANICAL ENGINEERING	2.22	2.3						2.1				2.23
C116	Engineering chemistry lab	2.94	2.97				2.97	2.97					2.9
C117	C PROGRAMMING LABORATORY	2.95	2.95			2.95							2.9
C118	TECHNICAL ENGLISH-I										3		3
C201	Biostatistics	1.71	1.71				2.17				2.17		2.17
C202	MICROBIOLOGY	1.7	1.7		1.7	1.7	1.7	1.7	1.7	1.7			1.7
C203	Unit Operations	0.67	0.73		0.5								0.47
C204	INTRODUCTION TO BIOMOLECULES	0.56	0.63		0.78		0.78			0.67	0.72		0.62
C205	Cell Biology and Genetics	2.03	1.97	2.37	2.17		1.97						
C206	PYTHON PROGRAMMING	1.15	1.15	1.15	1.15	1.15							1.15
C207	MICROBIOLOGY LAB	2	1.9		1.7					1.7	2.3		
C208	Unit Operations Laboratory	1.92	2.37		2.47	2.57					1.83	1.83	1.7
C211	STOICHIOMETRY	2.8	2.8										
C212	MOLECULAR BIOLOGY	2.45	2.57		2.3		2.3						2.63
C213	IMMUNOTECHNOLOGY	2.45	2.45	2.45			2.45	2.45					2.45
C214	CELL CULTURE TECHNIQUES	2.22	2.13	1.9	2.3		2.5	2.37	1.9				2.6
C215	Biochemical Thermodynamics	2.93	2.97		2.9		3						3
C216	CLINICAL BIOCHEMISTRY	0.92	1.22		1.39					1.45			1.4
C217	CLINICAL BIOCHEMISTRY LABORATORY	2.22	2.19		2.1		2.3	2.3		2.1	2.3		2.3
C218	IMMUNOTECHNOLOGY LABORATORY	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97	0.97
C301	BIOBUSINESS AND ENTREPRENEURSHIP		2.63		2.6		2.66	2.7	2.68			2.65	2.7
C302	CHEMICAL REACTION ENGINEERING	2.19	2.19	2.23	2.03		2.3			2.33	2.33		2.28
C303	ENZYME TECHNOLOGY & BIOTRANSFORMATION	2.08	2.3		2.2		2.32	2.1			1.8		2.33
C304	GENOMICS AND PROTEOMICS	2.73	2.66		2.53		2.47		2.6		2.4	2.8	2.8
C305	Bioanalytical Techniques	2.2	2.23	2.23	2.23					2.23			2.17
C306	GENETIC ENGINEERING & APPLICATIONS	2.22					2.17						2.2
C307	Biokinetics and Enzyme Technology Lab	2.31	2.31			2.31			2.17				
C308	Genetic Engineering and Cell Culture Lab	1.03	0.63	1.07	0.4	1.1	0.7		1	1.07	1		1

Summary of Direct Attainment(CIE and SEE) of Programme Outcomes for the Batch : 2018-to-2022													
Graduation Period: 2018-to-2022				Scheme	2018	No.of Courses						59	
Direct Attainment of Programme Outcomes													
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C309	ENVIRONMENTAL STUDIES						2.81	2.81					
C311	PROCESS CONTROL AND AUTOMATION	0.92	1	1.13									
C312	Bioprocess Equipment Design and CAED	2.51	2.56	2.73	3	3							
C313	Bioinformatics	2.57	2.55		2.47	2.58	2.53						2.9
C314	Food Process Engg	2.23		1.8			2.13				2.57		2.58
C316	Process Control & Automation Lab	1.68	1.66	3		3			3				
C317	Bioinformatics Laboratory	2	1.8	1.29	1.9	1.91			0.67		1		2
C318	Mini Project		1.44	1.44	1.46	1.45	1.5	1.5	1.48	1.44	1.44	1.47	1.5
C401	BIOPROCESS ENGINEERING	1.85	1.84	1.85	1.83	1.88	1.87	1.87		1.88	1.83		1.81
C402	Clinical and Pharmaceutical Biotechnology	1.78	1.37	1.57			1.77		2.03				
C403	Process Equipment & Plant Design	1.43	1.81	1.8		1.43			1.9		1.9	1.7	1.43
C404	TISSUE ENGINEERING	2.42	2.43	2.43	2.37		2.43	2.3	2.5	2.43	2.3	2.43	2.46
C406	BIOROCCESS ENGINEERING LAB	2.02	1.94	1.63	1.3				2.1	1.97	2.1		2.23
C407	Project Phase 1		2.64	2.56	2.6	2.55	1.63	2.63	1.96	2.05	2.05	2.3	1.53
C411	REGULATORY AFFAIRS IN BT INDUSTRY		2.43		1.97		2.07	2.1	2.2			2.03	2.43
C412	ENVIRONMENTAL BIOTECHNOLOGY	2.37	1.96	1.6	1.87		1.98	2.05	2.53	1.87			2
C413	Major Project Phase II	2.01	2.13	2.22	2.23	2.26	2.29	2.48	2.36	2.44	2.54	2.25	2.37
C414	Technical seminar	2.05	2.08		2.07		2.06	1.8	2.3	2.3	2.3		2.17
C415	Internship/ Professional Practice	1.84	2.52		2.52	2.64	2.52			2.59	1.98	2.52	2.13
Sum of PO Attainment		104	109	41	62	39	70	41	37	35	52	21	100
Number of subjects mapped		52	54	22	32	19	33	19	18	19	26	10	48
Average direct PO Attainment (Scale of 1-3)		2.00	2.02	1.88	1.94	2.08	2.13	2.18	2.06	1.84	1.98	2.11	2.08



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Biotechnology

**Summary of Direct Attainment(CIE and SEE) of PSOs for the Batch :2018-to-2022**

Graduation Period: 2018-to-2022	Scheme	2018	No.of Courses	59
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**Direct Attainment of Programme Specific Outcomes**

CID	Title of Course	1	2	3
C101	CALCULUS AND LINEAR ALGEBRA			
C102	Engineering Physics			
C103	BASIC ELECTRICAL ENGINEERING			
C104	ELEMENTS OF CIVIL ENGG & MECHANICS			
C105	ENGINEERING GRAPHICS			
C106	ENGINEERING PHYSICS LAB			
C107	BASIC ELECTRICAL ENGINEERING LABORATORY			
C108	TECHNICAL ENGLISH-2			
C111	ADVANCED CALCULUS AND NUMERICAL METHODS			
C112	Engineering chemistry			
C113	C PROGRAMMING FOR PROBLEM SOLVING			
C114	Basic Electronics			
C115	ELEMENTS OF MECHANICAL ENGINEERING			
C116	Engineering chemistry lab			
C117	C PROGRAMMING LABORATORY			
C118	TECHNICAL ENGLISH-I			
C201	Biostatistics			
C202	MICROBIOLOGY			
C203	Unit Operations	1.7		
C204	INTRODUCTION TO BIOMOLECULES	0.47		0.73
C205	Cell Biology and Genetics	0.63		
C205	PYTHON PROGRAMMING	2.03		
C207	MICROBIOLOGY LAB		1.15	1.15
C208	Unit Operations Laboratory	2		1.7
C211	STOICHIOMETRY	1.95		2.47
C212	MOLECULAR BIOLOGY	2.8	2.8	2.8
C213	IMMUNOTECHNOLOGY	2.45	2.57	
C214	CELL CULTURE TECHNIQUES	2.45		
C215	Biochemical Thermodynamics	2.31		
C216	CLINICAL BIOCHEMISTRY	2.9		2.96
C217	CLINICAL BIOCHEMISTRY LABORATORY	1.23		
C218	IMMUNOTECHNOLOGY LABORATORY	2.17		
C301	BIOBUSINESS AND ENTREPRENEURSHIP	0.97		
C302	CHEMICAL REACTION ENGINEERING	2.7	2.63	2.7
C303	ENZYME TECHNOLOGY & BIOTRANSFORMATION	2.2	2.19	2.21
C304	GENOMICS AND PROTEOMICS	2.1		1.83
C305	Bioanalytical Techniques	2.72	2.83	
C306	GENETIC ENGINEERING & APPLICATIONS	2.2		2.2
C307	Biokinetics and Enzyme Technology Lab	2.3		3
C308	Genetic Engineering and Cell Culture Lab	2.31		2.37
C309	ENVIRONMENTAL STUDIES	0.95		
C311	PROCESS CONTROL AND AUTOMATION	1.2	1	0.86
C312	Bioprocess Equipment Design and CAED	2.9		2.6

Summary of Direct Attainment(CIE and SEE) of PSOs for the Batch :2018-to-2022					
Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses	59
Direct Attainment of Programme Specific Outcomes					
CID	Title of Course	1	2	3	
C313	Bioinformatics	2.5	2.56	2.57	
C314	Food Process Engg	2.23		1.93	
C316	Process Control & Automation Lab	1.68		2.93	
C317	Bioinformatics Laboratory	2	1.91	1.91	
C318	Mini Project	1.48	1.5	1.45	
C401	BIOPROCESS ENGINEERING	1.84	1.83	1.85	
C402	Clinical and Pharmaceutical Biotechnology	1.72		1.99	
C403	Process Equipment & Plant Design	1.69		1.68	
C404	TISSUE ENGINEERING	2.47	2.3	2.43	
C406	BIOROCCESS ENGINEERING LAB	2.02	2.1	1.88	
C407	Project Phase 1	2.16	2.13	2.55	
C411	REGULATORY AFFAIRS IN BT INDUSTRY	2.03	2.43	2.07	
C412	ENVIRONMENTAL BIOTECHNOLOGY	1.97		2.2	
C413	Major Project Phase II	2.26	2.22	2.28	
C414	Technical seminar	1.9	2.1	1.9	
C415	Internship/ Professional Practice	2.15	2.52	2.46	
<b>Sum of PSO Attainment</b>		79.7	38.8	63.7	
<b>No of Subjects mapped</b>		40.0	18.0	30.0	
<b>Average Direct PSO Attainment</b>		1.99	2.15	2.12	





**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Biotechnology

**Summary of In-Direct Attainment(CES) of Programme Outcomes for the Batch : 2018-to-2022**

Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses									59
In-Direct Attainment of Programme Outcomes													
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C101	CALCULUS AND LINEAR ALGEBRA	1.43	1.43										
C102	Engineering Physics	2.25	2										1.43
C103	BASIC ELECTRICAL ENGINEERING	2.22	2.32				2.2						1.8
C104	ELEMENTS OF CIVIL ENGG & MECHANICS	2.32	2.38										2.33
C105	ENGINEERING GRAPHICS	1.6	1.6			1.6							1.5
C106	ENGINEERING PHYSICS LAB	1.1	1.5								1.6		1.6
C107	BASIC ELECTRICAL ENGINEERING LABORATORY	2.6	2.6										1.5
C108	TECHNICAL ENGLISH-2						2.5				2.49		2.5
C111	ADVANCED CALCULUS AND NUMERICAL METHODS	1.27	1.27										
C112	Engineering chemistry	0.8	0.8				0.8	0.8					1.27
C113	C PROGRAMMING FOR PROBLEM SOLVING	1.55	1.55			1.55							0.8
C114	Basic Electronics	1.33	1.45								1.9		1.9
C115	ELEMENTS OF MECHANICAL ENGINEERING	1.72	1.5					2.1					1.67
C116	Engineering chemistry lab	0.64	0.6				0.6	0.6					0.5
C117	C PROGRAMMING LABORATORY	1.55	1.55			1.55						1.3	1.3
C118	TECHNICAL ENGLISH-I												
C201	Biostatistics	2.6	2.6										
C202	MICROBIOLOGY	1.87	1.5		1.2	1.8	1.2	1.8	3	1.8			2.6
C203	Unit Operations	1.47	1.38		1.03								1.7
C204	INTRODUCTION TO BIOMOLECULES	0.89	0.86		0.9		0.9			1.18	1.05		1.3
C205	Cell Biology and Genetics	1.43	1.1	1.1	1.1		1.1						
C206	PYTHON PROGRAMMING												
C207	MICROBIOLOGY LAB	1.9	1.6		1					1	2.8		
C208	Unit Operations Laboratory	1.4	0.5		1.05	1.6							
C211	STOICHIOMETRY									1	1		1.85
C212	MOLECULAR BIOLOGY	2.35	2.5		2.5		2.2						
C213	IMMUNOTECHNOLOGY												2.2
C214	CELL CULTURE TECHNIQUES	0.8	0.77	0.4	0.67		0.6	1.27	0.8				1.5
C215	Biochemical Thermodynamics	1.47	1.8		1.25		1.9						1.5
C216	CLINICAL BIOCHEMISTRY	0.83	1.16		1.28					1.45			1.3
C217	CLINICAL BIOCHEMISTRY LABORATORY	2.44	2.5		2.65		2.3	2.3		2.65	2.3		2.3
C218	IMMUNOTECHNOLOGY LABORATORY	2.5	2.2	2.2	2.2	2.5				2.2	2.2	2.2	2.5
C301	BIOBUSINESS AND ENTREPRENEURSHIP		2.4		2.4		2.4	2.4	2.4			2.4	2.4
C302	CHEMICAL REACTION ENGINEERING	1.01	1.01	0.95	1.25		0.85			0.6	0.6		0.98
C303	ENZYME TECHNOLOGY & BIOTRANSFORMATION	2.5	2.67		3		2.58	2.5			2.5		2.5
C304	GENOMICS AND PROTEOMICS	1.91	2		2.33		2.47		2.2				
C305	Bioanalytical Techniques	1.02	1.2	1.4	1.15					1.6			1.3
C306	GENETIC ENGINEERING & APPLICATIONS	2.22					2.33						1
C307	Biokinetics and Enzyme Technology Lab	0.83	0.83			0.83							2.5
C308	Genetic Engineering and Cell Culture Lab	2.01	1.5	1.77	1.6	1.3	2.15		1.8	1.77	1.8		1.8
C309	ENVIRONMENTAL STUDIES						2.5	2.5					

Summary of In-Direct Attainment(CES) of Programme Outcomes for the Batch : 2018-to-2022													
Graduation Period: 2018-to-2022				Scheme		2018		No.of Courses				59	
In-Direct Attainment of Programme Outcomes													
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12
C311	PROCESS CONTROL AND AUTOMATION	0.28	0.3	0.33									
C312	Bioprocess Equipment Design and CAED	2.03	2.06	2.1	2.3	2.3		0.4					
C313	Bioinformatics	2.43	2.3		2	2.5	2.5						2.1
C314	Food Process Engg	1.36		1.8			1.53				2.5		2.5
C316	Process Control & Automation Lab	1.4	1.79	2		2			2	2.7	2.7		2.7
C317	Bioinformatics Laboratory	2.6	2.3	1.67	2.45	2.47			0.87		1.3		2.6
C318	Mini Project												
C401	BIOPROCESS ENGINEERING	1.58	1.59	1.62	1.7	1.6	1.7	1.45		1.47	1.7		1.6
C402	Clinical and Pharmaceutical Biotechnology	1.12	1	1.1			1.2		0.8				
C403	Process Equipment & Plant Design	1	1.5	1.9		1			1.9		1.9	1.9	1
C404	TISSUE ENGINEERING	1.79	1.95	1.7	1.85		2.2	2	1.4	1.7	2	2.2	1.6
C406	BIOROCCESS ENGINEERING LAB	2.2	2.1	2.25	2.5				2.5	2	2.5		2
C407	Project Phase 1												
C411	REGULATORY AFFAIRS IN BT INDUSTRY		2		2.5		2.5	2.5	2.25				
C412	ENVIRONMENTAL BIOTECHNOLOGY	1.95	1.8	1.5	2.1		1.93	1.88	2.3	2.1		2.5	2
C413	Major Project Phase II												1.57
C414	Technical seminar												
C415	Internship/ Professional Practice.												
<b>Sum of Indirect PO Attainment</b>		76	75	26	46	25	45	25	25	25	39	13	71
<b>Number of subjects mapped</b>		46	46	17	26	14	25	14	14	15	20	6	40
<b>Average indirect PO Attainment (Scale of 1-3)</b>		1.64	1.64	1.52	1.77	1.76	1.81	1.75	1.79	1.68	1.94	2.08	1.78





**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Biotechnology

**Summary of In-Direct Attainment(CES) of PSOs for the Batch : 2018-to-2022**

Graduation Period: 2018-to-2022	Scheme	2018	No.of Courses	59
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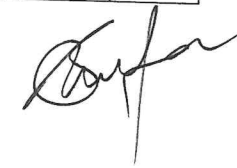
**In Direct Attainment of Programme Specific Outcomes**

CID	Title of Course	In Direct Attainment of Programme Specific Outcomes			
		1	2	3	
C101	CALCULUS AND LINEAR ALGEBRA				
C102	Engineering Physics				
C103	BASIC ELECTRICAL ENGINEERING				
C104	ELEMENTS OF CIVIL ENGG & MECHANICS				
C105	ENGINEERING GRAPHICS				
C106	ENGINEERING PHYSICS LAB				
C107	BASIC ELECTRICAL ENGINEERING LABORATORY				
C108	TECHNICAL ENGLISH-2				
C111	ADVANCED CALCULUS AND NUMERICAL METHODS				
C112	Engineering chemistry				
C113	C PROGRAMMING FOR PROBLEM SOLVING				
C114	Basic Electronics				
C115	ELEMENTS OF MECHANICAL ENGINEERING				
C116	Engineering chemistry lab				
C117	C PROGRAMMING LABORATORY				
C118	TECHNICAL ENGLISH-I				
C201	Biostatistics				
C202	MICROBIOLOGY				
C203	Unit Operations	1.96			
C204	INTRODUCTION TO BIOMOLECULES	1.05		1.7	
C205	Cell Biology and Genetics	0.96			
C206	PYTHON PROGRAMMING	1.43			
C207	MICROBIOLOGY LAB				
C208	Unit Operations Laboratory	1.9		1	
C211	STOICHIOMETRY	1.58		1.05	
C212	MOLECULAR BIOLOGY				
C213	IMMUNOTECHNOLOGY	2.35	2.5		
C214	CELL CULTURE TECHNIQUES				
C215	Biochemical Thermodynamics	0.96			
C216	CLINICAL BIOCHEMISTRY	1.05		1.64	
C217	CLINICAL BIOCHEMISTRY LABORATORY	1.13			
C218	IMMUNOTECHNOLOGY LABORATORY	2.53			
C301	BIOBUSINESS AND ENTREPRENEURSHIP	2.28			
C302	CHEMICAL REACTION ENGINEERING	2.4	2.4	2.4	
C303	ENZYME TECHNOLOGY & BIOTRANSFORMATION	1.02	1.06	1.07	
C304	GENOMICS AND PROTEOMICS	2.6		2.5	
C305	Bioanalytical Techniques	2	1.6		
C306	GENETIC ENGINEERING & APPLICATIONS	1.08		0.85	
C307	Biokinetics and Enzyme Technology Lab	2.17		1.5	
C308	Genetic Engineering and Cell Culture Lab	0.83		0.85	
C309	ENVIRONMENTAL STUDIES	1.88			
C311	PROCESS CONTROL AND AUTOMATION				
C312	Bioprocess Equipment Design and CAED	0.38	0.3	0.27	
		2.3		2.02	

Summary of In-Direct Attainment(CES) of PSOs for the Batch : 2018-to-2022					
Graduation Period: 2018-to-2022		Scheme	2018	No.of Courses	59
In Direct Attainment of Programme Specific Outcomes					
CID	Title of Course	1	2	3	
C313	Bioinformatics	2.25	2.41	2.5	
C314	Food Process Engg	1.36		1.5	
C316	Process Control & Automation Lab	1.4		1.4	
C317	Bioinformatics Laboratory	2.6	2.47	2.47	
C318	Mini Project				
C401	BIOPROCESS ENGINEERING	1.56	1.4	1.58	
C402	Clinical and Pharmaceutical Biotechnology	1.12		1.13	
C403	Process Equipment & Plant Design	1.06		1.6	
C404	TISSUE ENGINEERING	1.55	2	2.2	
C406	BIOROCCESS ENGINEERING LAB	2.2	2	2.17	
C407	Project Phase 1				
C411	REGULATORY AFFAIRS IN BT INDUSTRY	2.5	2	2.5	
C412	ENVIRONMENTAL BIOTECHNOLOGY	2		1.6	
C413	Major Project Phase II				
C414	Technical seminar				
C415	internship/ Professional Practice				
Sum of PSO attainment		55.4	20.1	37.5	
No of subjects mapped		33	11	23	
Average Indirect PSO Attainment		1.68	1.83	1.63	



ACHARYA		DEPARTMENT OF BIOTECHNOLOGY														
2018-22		ACHARYA INSTITUTE OF TECHNOLOGY														
Sl No.	Activity	INDIRECT ATTAINMENT - through Activity Survey														
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	EV1	0.0	0.0	0.0	0.0	0.0	0.8	0.6	0.0	0.0	0.0	0.0	0.8	0.4		
2	EV2	0.0	0.0	1.4	1.1	0.0	0.0	0.6	0.0	0.0	1.4	1.1	0.8	0.4		
3	EV3	0.0	0.0	1.3	0.0	0.9	0.0	0.6	0.0	0.0	1.3	1.1	0.4	0.4		0.9
4	EV4	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.0	0.0	0.0	0.0	0.0	0.3		0.9
5	EV5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.8	0.0	0.0	0.0	0.0	0.2		0.0
6	EV6	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.4	0.0	0.0	0.0	0.8	0.0		0.0
7	EV7	0.0	0.0	0.0	1.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4		0.0
8	EV8	2.5	2.5	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4		0.0
	SUM	2.5	2.5	2.7	2.7	2.7	2.4	2.5	2.6	2.7	2.7	2.7	2.8	2.5	0.0	2.7
	ATNM %	84.72	84.72	90.66	90.35	88.54	81.05	82.32	86.53	89.35	90.66	90.39	91.82	84.67	0.00	90.20









2018-22


DEPARTMENT OF BIOTECHNOLOGY  
ACHARYA INSTITUTE OF TECHNOLOGY

Sl. No.	USN number	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	IAY18BT014	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
2	IAY18BT021	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	IAY18BT033	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	IAY18BT002	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
5	IAY18BT029	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	IAY18BT003	2	2	2	1	1	1	3	3	3	3	3	3	3	3	3
7	IAY18BT004	2	2	2	2	2	2	2	2	2	2	1	3	3	3	3
8	IAY18BT015	2	2	2	2	2	3	3	2	2	2	2	2	1	1	1
9	IAY18BT017	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2
10	IAY18BT012	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1
11	IAY18BT024	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2
12	IAY18BT022	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2
13	IAY18BT009	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3
14	IAY18BT001	3	3	3	2	3	2	3	3	3	3	3	3	3	3	3
15	IAY18BT026	2	2	3	3	3	3	3	3	3	2	3	3	3	3	3
16	IAY18BT017	2	2	2	3	3	2	3	3	3	3	3	3	3	3	3
17	IAY18BT032	2	3	2	2	2	2	3	3	3	3	3	3	3	3	3
18	IAY18BT013	2	2	2	3	2	3	2	3	3	2	2	3	2	2	2
19	IAY18BT020	2	2	2	2	2	3	2	2	3	2	3	3	2	2	2
20	IAY18BT023	2	3	2	2	2	2	2	3	3	2	3	3	2	3	2
21	IAY18BT010	2	2	3	3	2	3	3	2	3	3	3	3	3	3	3
22	IAY18BT018	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2
23	IAY18BT031	3	3	2	2	2	2	2	2	2	2	3	2	2	2	3
24	IAY18BT034	3	3	3	2	3	3	3	2	3	2	2	2	2	2	2
25	IAY18BT024	2	3	3	3	3	3	3	3	3	3	3	2	2	2	2
26	IAY18BT030	2	2	3	3	3	2	3	3	3	3	3	2	3	3	2
27	IAY18BT011	3	3	2	2	2	3	2	3	3	3	2	3	3	3	3
28	IAY18BT007	2	2	3	3	3	3	3	3	2	2	2	3	3	3	3
29	IAY18BT007	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2
30	IAY18BT035	2	1	1	1	2	2	2	2	2	2	2	2	3	3	3
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	SUM	67	70	70	69	70	73	75	75	77	74	75	75	69	70	68
	No of participants	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	ATNM of POs	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.6	2.5	2.5	2.5	2.3	2.3	2.3
	ATNM %	74.44	77.78	77.78	76.67	77.78	81.11	83.33	83.33	85.56	82.22	83.33	83.33	76.67	77.78	75.56

 2018-22		DEPARTMENT OF BIOTECHNOLOGY ACHARYA INSTITUTE OF TECHNOLOGY TOTAL INDIRECT ATTAINMENT														
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	ACTIVITY END SURVEY	2.5	2.5	2.7	2.7	2.7	2.4	2.5	2.6	2.7	2.7	2.7	2.8	2.5	0.0	2.7
2	EXIT SURVEY	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.6	2.5	2.5	2.5	2.3	2.3	2.3
3	ALUMNI SURVEY	3.0	2.6	2.3	2.3	2.2	2.5	2.7	2.1	2.4	2.7	2.4	2.5	2.8	2.0	2.3
4	COURSE END SURVEY	1.6	1.6	1.5	1.8	1.8	1.8	1.8	1.8	1.7	1.9	2.1	1.8	1.7	1.8	1.6
5	SUM	9.4	9.1	8.8	9.1	9.0	9.1	9.4	9.0	9.4	9.8	9.7	9.6	9.2	6.2	8.9
6	AVG	2.3	2.3	2.2	2.3	2.2	2.3	2.4	2.2	2.3	2.4	2.4	2.4	2.3	1.5	2.2



 ACHARYA		DEPARTMENT OF BIOTECHNOLOGY														
		ACHARYA INSTITUTE OF TECHNOLOGY														
2018-22		TOTAL ATTAINMENT														
Sl No.	ASSESSMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	DIRECT ATNM (A)	2.00	2.02	1.88	1.94	2.08	2.13	2.18	2.06	1.84	1.98	2.11	2.08	1.9935	2.153889	2.122
2	INDIRECT ATNM (B)	2.3	2.3	2.2	2.3	2.2	2.3	2.4	2.2	2.3	2.4	2.4	2.4	2.3	1.5	2.2
3	Final ATNM (80% A +20% B)	2.07	2.07	1.95	2.01	2.11	2.16	2.21	2.10	1.94	2.08	2.17	2.14	2.06	2.03	2.14
4	Percentage final ATN	69.0	69.0	64.9	66.8	70.3	71.9	73.8	69.9	64.8	69.2	72.5	71.3	68.5	67.7	71.5

  
 Head of The Department  
 Department of Biotechnology  
 Acharya Institute Of Technology  
 Soladevanahalli, Bangalore-560107



**Department of Computer Science and Engineering**  
**Acharya Institute of Technology**

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**PO Attainment for 2021 - 22 Passed Out Batch**

Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
18MAT11	Calculus and Linear Algebra	1.8	1.8										
18PHY12	Engineering Physics	2.2	1.99										2.3
18ELE13	Basic Electrical Engineering	2.19	2.2	2.11	2.4		2.1		2.2	2.23	2.26		2.08
18CIV14	Elements of Civil Engineering	2.18	2.06							2.39	2.37		2.28
18EDGL15	Engineering Graphics	2.21	2.01	2.27	2.01		2.3				2.41		2
18PHYL16	Engineering Physics Lab	2.6	2.8	2.9									
18ELE17	Basic Electrical Engineering Lab	2.87	2.8	2.61	2.93		2.6		2.26	2.25	2.59		2.94
18EGH18	Technical English-I						2.67				2.74	2.54	2.7
18MAT21	Advanced Calculus and Numerical Methods	2.16	2.31										
18CHE22	Engineering Chemistry	2.15	2.14	2.3			2.3	2.5					2.35
18CPS23	Computer Concepts and Programming	2.15	2.1	2									
18ELN24	Basic Electronics	1.93	1.8	1.79									
18ME25	Elements of Mechanical Engineering	2.39	2.77					2.9					2.4
18CHEL26	Engineering Chemistry Lab	2.44	1.9				2	1.77	1.9		2.2		2.1
18CPL27	Computer Programming Lab	2.2	2	2.4									
18EGH18	Technical English - II						2.9				2.9	2.3	2.9
18MAT31	Transform Calculus, Fourier Series	1.2	1.45										
18CS32	Data Structures and Applications	2.04	1.59	1.64									
18CS33	Analog and Digital Electronics	1.44	1.59	1.45	1.8								
18CS34	Computer Organization	1.41	1.22	1.34		1.55	1.53		1.23				
18CS35	Software Engineering	1.91	1.91	1.44		1.8				1.55			
18CS36	Discrete Mathematical Structures	1.54	2.1										
18CSL37	Analog and Digital Electronics Laboratory	2.03	2.43	2.27	1.38				2.7		2.3		
18CSL38	Data Structures Laboratory	2.66	2.86	2.75									



## Department of Computer Science and Engineering Acharya Institute of Technology

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18MAT41	Complex Analysis, Probability and Statistical Methods	1.96	1.79										
18CS42	Design and Analysis of Algorithms	2	2.01	1.79									1.7
18CS43	Operating Systems	2	1.7	1.9		1.7							
18CS44	Microcontroller and Embedded Systems	2.53	2.83	2.37	1.55				2.3		2.7		
18CS45	Object Oriented Concepts	1.02	1.93	1.9		1.95							1.95
18CS46	Data Communication	1.54	1.06	1.4	1.7	1.58							
18CSL47	Design and Analysis of Algorithm Laboratory	2.63	2.49	2.78									
18CSL48	Microcontroller and Embedded Systems Laboratory	2.15	2.4	1.78									
18CS51	Management, Entrepreneurship for IT industry	1.86	2	2.33	2.35	2.35	2.4			2.25	2.3	2.5	2.75
18CS52	Computer Networks and security	2.04	1.84	1.86	1.91	1.37	2.05	1.85					
18CS53	Database Management System	1.49	1.02	1.3	1.14	1.2	1.55			1.5	1.45	1.81	1.98
18CS54	Automata theory and Computability	1.28	1.79	1.5									
18CS55	Application Development using Python	1.15	1.36			1.78		1.5		1.3			
18CS56	Unix Programming	2.38	2.03	2.33	2.34	2.5							2.2
18CSL57	Computer Network Laboratory	2.38	2.86	2.38	2.47								
18CSL58	DBMS Laboratory with mini project	1.9	1.4	1.9	1.3	1.7				1.5	1.8	1.46	1.58
18CS61	System Software and Compilers	1.9	1.55	1.58									
18CS62	Computer Graphics and Visualization	1.76	1.95	1.98		1.67							
18CS63	Web Technology and its applications	2.2	2.1	2.4	2.3	2.5	2.2						2.3
18CS643	Cloud Computing and its Applications	1.5	1.3	1.9	1.4	1.9						1.9	1.8
18CS645	System Modelling and Simulation	2.1	2.9			2.3							2.9
18CSL66	System Software Laboratory	2.9	3	2.97	3	3					2.6		
18CSL67	Computer Graphics Laboratory with mini project	2.75	2.55	2.98	2.56	2.99				2.74	2.8	2.6	2.49
18CSMP68	Mobile Application Development	2.84		2.62		2.6					2.99	2.92	2.9



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18CS71	Artificial Intelligence and Machine Learning	1.27	1.65	1.47	1.29	1.2					1.5		1.4
18CS72	Big Data Analytics	1.6	1.3	1.5	1.6	1.66	1.3			1.6	1.6		0.23
18CS734	User Interface Design	1.6	2.3	2.22									
18CS741	Digital Image Processing	2.4	2.5	2.4		2.5							
18CS742	Network management	2	2.6			2.1		1.9		2.7	2.2		
18CS744	Cryptography	2.4	2.5						2.5				2.4
18CSL76	Artificial Intelligence and Machine Learning Laboratory	2.65	2.75		2.65	2.5					2.2		2.25
18CSP77	Project Work Phase – 1	2.9	2.8	2.7	2.7	2.85	3		2.6	2.5	2.8	2.8	2.95
18CS81	Internet of Things	2.05	2	2.2	1.5	1.5			1.8	2	2		
18CS823	NoSQL Database	2.1	2.26	2.33	2.5	2.4	2.4			2	2.3	2.3	2.2
18CSP83	Project Work Phase –2	2.86	2.9	2.83	2.3	2.65	2.5		2.9	2.53	1.1	2.6	2.7
18CSS84	Technical Seminar					2.8	2.9		2.24	2.6	1.3	2.9	2.3
18CSI85	Internship					2.2	2.3		2.7	2.8	1.7	2.7	2.7
<b>Total PO Attainment</b>		<b>117.8</b>	<b>117.3</b>	<b>90.87</b>	<b>49.08</b>	<b>60.8</b>	<b>41</b>	<b>12.42</b>	<b>27.33</b>	<b>36.44</b>	<b>55.11</b>	<b>31.33</b>	<b>67.73</b>
<b>Average PO Attainment in Scale of 3</b>		<b>1.94</b>	<b>1.93</b>	<b>1.49</b>	<b>0.81</b>	<b>1</b>	<b>0.68</b>	<b>0.21</b>	<b>0.45</b>	<b>0.6</b>	<b>0.91</b>	<b>0.52</b>	<b>1.12</b>
<b>Direct Attainment - 80%</b>		<b>1.56</b>	<b>1.55</b>	<b>1.2</b>	<b>0.65</b>	<b>0.8</b>	<b>0.55</b>	<b>0.17</b>	<b>0.36</b>	<b>0.48</b>	<b>0.73</b>	<b>0.42</b>	<b>0.9</b>
<b>Average Direct PO Attainment in %</b>		<b>52</b>	<b>51.67</b>	<b>40</b>	<b>21.67</b>	<b>26.67</b>	<b>18.34</b>	<b>5.67</b>	<b>12</b>	<b>16</b>	<b>24.34</b>	<b>14</b>	<b>30</b>
<b>Indirect Attainment in Scale of 3</b>		<b>2.3</b>	<b>2.54</b>	<b>2.1</b>	<b>1.98</b>	<b>2.11</b>	<b>2.4</b>	<b>2.32</b>	<b>2.12</b>	<b>2.4</b>	<b>2.5</b>	<b>2.13</b>	<b>2.5</b>
<b>Indirect Attainment - 20 %</b>		<b>0.46</b>	<b>0.51</b>	<b>0.42</b>	<b>0.4</b>	<b>0.43</b>	<b>0.48</b>	<b>0.47</b>	<b>0.43</b>	<b>0.48</b>	<b>0.5</b>	<b>0.43</b>	<b>0.5</b>
<b>Average Indirect PO Attainment in %</b>		<b>15.34</b>	<b>17</b>	<b>14</b>	<b>13.34</b>	<b>14.34</b>	<b>16</b>	<b>15.67</b>	<b>14.34</b>	<b>16</b>	<b>16.67</b>	<b>14.34</b>	<b>16.67</b>
<b>Total Attainment</b>		<b>2.02</b>	<b>2.06</b>	<b>1.62</b>	<b>1.05</b>	<b>1.23</b>	<b>1.03</b>	<b>0.64</b>	<b>0.79</b>	<b>0.96</b>	<b>1.23</b>	<b>0.85</b>	<b>1.4</b>
<b>Total Attainment in %</b>		<b>67.34</b>	<b>68.67</b>	<b>54</b>	<b>35</b>	<b>41</b>	<b>34.34</b>	<b>21.34</b>	<b>26.34</b>	<b>32</b>	<b>41</b>	<b>28.34</b>	<b>46.67</b>



**Department of Computer Science and Engineering**  
**Acharya Institute of Technology**

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**PSO Attainment for 2021 - 22 Passed Out Batch**

Course Code	Course Title	PSO 1	PSO 2	PSO 3
18MAT11	Calculus and Linear Algebra			
18PHY12	Engineering Physics			
18ELE13	Basic Electrical Engineering			2.59
18CIV14	Elements of Civil Engineering			
18EDGL15	Engineering Graphics			
18PHYL16	Engineering Physics Lab			
18ELE17	Basic Electrical Engineering Lab			2.74
18EGH18	Technical English-I			
18MAT21	Advanced Calculus and Numerical Methods			
18CHE22	Engineering Chemistry			
18CPS23	Computer Concepts and Programming	2.11	2.3	
18ELN24	Basic Electronics	2		
18ME25	Elements of Mechanical Engineering		2.6	
18CHEL26	Engineering Chemistry Lab			
18CPL27	Computer Programming Lab	1.9	1.89	
18EGH18	Technical English - II			
18MAT31	Transform Calculus, Fourier Series			
18CS32	Data Structures and Applications	1.89	1.5	1.29
18CS33	Analog and Digital Electronics	1.69	1.5	
18CS34	Computer Organization	0.89	0.9	1.19
18CS35	Software Engineering	1.57	1.54	1.69
18CS36	Discrete Mathematical Structures			
18CSL37	Analog and Digital Electronics Laboratory	2.6	2.6	
18CSL38	Data Structures Laboratory	2.55	2.57	2.6
18MAT41	Complex Analysis, Probability and Statistical Methods			
18CS42	Design and Analysis of Algorithms	2.2	2.2	



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18CS43	Operating Systems	1.79	1.91	1.9
18CS44	Microcontroller and Embedded Systems	2.6	2.6	
18CS45	Object Oriented Concepts	1.47	1.73	1.9
18CS46	Data Communication	1.43		
18CSL47	Design and Analysis of Algorithm Laboratory	2.48	2.68	2.68
18CSL48	Microcontroller and Embedded Systems Laboratory	2.1		
18CS51	Management, Entrepreneurship for IT industry	2.3	2.14	2.1
18CS52	Computer Networks and security	1.7	1.85	
18CS53	Database Management System	1.29	1.55	1.2
18CS54	Automata theory and Computability	1.29	1.3	1.5
18CS55	Application Development using Python	1.3	1.4	
18CS56	Unix Programming	2.25		2.2
18CSL57	Computer Network Laboratory	2.48	2.48	
18CSL58	DBMS Laboratory with mini project	1.8	1.7	2.1
18CS61	System Software and Compilers	1.9	1.68	
18CS62	Computer Graphics and Visualization	1.92	1.69	1.4
18CS63	Web Technology and its applications	2.3		1.9
18CS643	Cloud Computing and its Applications	1.8	1.8	
18CS645	System Modelling and Simulation	2.6	2.42	2
18CSL66	System Software Laboratory	3	2.9	3
18CSL67	Computer Graphics Laboratory with mini project	2.5	2.99	2.86
18CSMP68	Mobile Application Development	2.66	2.8	2.9
18CS71	Artificial Intelligence and Machine Learning	1.25	1.2	1.45
18CS72	Big Data Analytics	1.5	1.6	
18CS734	User Interface Design	2	2.4	2
18CS741	Digital Image Processing	2.4	2.1	
18CS742	Network management	2.1		
18CS744	Cryptography	2	2.3	



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18CSL76	Artificial Intelligence and Machine Learning Laboratory	2.55	2.85	
18CSP77	Project Work Phase – 1	2.95	2.5	2.5
18CS81	Internet of Things	1.85		1.8
18CS823	NoSQL Database	2.5	2.34	2.5
18CSP83	Project Work Phase –2	2.4	2.6	2.9
18CSS84	Technical Seminar	2.9	2.9	2.9
18CSI85	Internship	2.6	2.7	2.7
<b>Total PSO Attainment</b>		<b>93.36</b>	<b>82.71</b>	<b>60.49</b>
<b>Average PSO Attainment in Scale of 3</b>		<b>1.54</b>	<b>1.36</b>	<b>1</b>
<b>Direct Attainment - 80 %</b>		<b>1.24</b>	<b>1.09</b>	<b>0.8</b>
<b>Average Direct PSO Attainment in %</b>		<b>41.34</b>	<b>36.34</b>	<b>26.67</b>
<b>Indirect Attainment in Scale of 3</b>		<b>2.3</b>	<b>2.31</b>	<b>1.98</b>
<b>Indirect Attainment - 20 %</b>		<b>0.46</b>	<b>0.47</b>	<b>0.4</b>
<b>Average Indirect PSO Attainment in %</b>		<b>15.34</b>	<b>15.67</b>	<b>13.34</b>
<b>Total Attainment</b>		<b>1.7</b>	<b>1.56</b>	<b>1.2</b>
<b>Total PSO Attainment in %</b>		<b>56.67</b>	<b>52</b>	<b>40</b>

*B. Sri Lakshmi*

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Summary of PO and PSOs Attainment for the Batch: 2018																	
Graduation Period: 2018-to-2022		Scheme		2018		No.of Courses		50		PSOs							
CID	Title of Course	Programme Outcome(PO)s												1	2	3	4
		1	2	3	4	5	6	7	8	9	10	11	12				
C201	Transform Calculus, Fourier Series and Numerical Techniques	1.2	1.44														
C202	Strength of Materials	1.2	1.65		1.44									1.21	1.07	1.15	0.95
C203	Fluid Mechanics	1.3	2.21	1.45		0.96		1.06		1.25				1.44	1	1.21	1.55
C204	Building Materials and Construction	2.3						1.78					1.86	1.56	1.32		
C205	Basic Surveying	2.1	2.11	1.34		1.06		1.05					0.96	1.68	1.44		
C206	Engineering Geology	2.1	1.95	0.6	0.6	1.05	0.87	0.56					0.8	1.06	1.25		
C207	Computer Aided Building Planning & Drawing	2.3	2			2.34				2.15			2.1	2.51	2.22		
C208	Building Materials Testing Laboratory	2.5	2.34	2.54	2.15	1.76	1.69	2.04	1.54	1.45	1.45	1.03	1.75	2.07	2.1		
C211	Complex Analysis, Probability And Statistical Method	1.5	2.05														
C212	Analysis of Determinate Structures	1.5	1.85											1.9	1.99	1.24	1.94
C213	Applied Hydraulics	1.9	1.7	1.44		0.78		1.06		0.8				1.56	1.45	1.15	1.05
C214	Concrete Technology	2.1	2.11	1.55	1.9	1.89	1.45	2.13					1.45	1.75	1.23		
C215	Advanced Surveying	1.8	2.31	2.05	0.85				1.24				1.25	1.26	1.5		
C216	Water Supply & Treatment Engineering	1.9	1.95	2.14	1.3			2.15					1.01	1.25	1.5		
C217	Engineering Geology Laboratory	2.2					2.15	2.34			2.07		1.35		2.1		
C218	Fluid Mechanics and Hydraulic Machines Laboratory	2.3	2.04					1.9					1.35	1.63	2.1		
C301	Construction Management & Entrepreneurship	1.8	1.95	1.1										1.41	1.56		
C302	Analysis of Indeterminate Structures	1.7	1.95												0.9	0.95	1.13
C303	Design of RC Structural Elements	1.6	1.44	1.23	0.64	0.47							1.45	1.55	1	1.04	1.32
C304	Basic Geotechnical Engineering	1.6	1.57	1.6									1.34	0.85	1.1	1.54	
C305	Municipal Wastewater Engineering	1.5	1.75	1.81	1.11			1.8					1.33		1.15		
C306	Highway Engineering	1.3	1.44	1.03	1.21	0.89	1.05			1.09	1.32	0.95	1.55	0.94	1.15	0.9	1.01
C307	Surveying Practice	1.5	1.33	0.93				1.96	1.75	2.35					1.85		
C308	Concrete and Highway Materials Laboratory	1.5		1.99				1.3	1.77	1.35					1.34		
C309	Environmental Studies	2.4	2.11					1.4	2.12	1.35				1.21	1.52		

Summary of PO and PSOs Attainment for the Batch: 2018																	
Graduation Period: 2018-to-2022		Scheme			2018		No.of Courses					50		PSOs			
CID	Title of Course	Programme Outcome(PO)s												1	2	3	4
		1	2	3	4	5	6	7	8	9	10	11	12				
C311	Design of Steel Structural Elements	1.5	1.95	2.03										1.33		1.45	1.51
C312	Applied Geotechnical Engineering	1.5	1.7	1.55	1.45	0.89								1.05		0.85	0.94
C313	Hydrology and Irrigation Engineering	1.8	2.01	1.65				0.86						2.16	1.46	1	1.05
C314	Solid Waste Management	2.3						2.01					1.54		1.67		
C316	Railway, Harbours, Tunnelling & Airports	1.9	1.85	0.9			1.04	1.28	1.06				1.75	1.45			
C317	Occupational Health & Safety	2.3	2.32	1.4	1.06		2.06	0.86	1	1.05	0.6		1.85	1.64	1.86		
C318	Software Application Laboratory	2.3	1.91	2.11		2.24	1.98		2.45	1.7		2.45	1.65	1.85			
C319	Environmental Engineering Laboratory	1.8	2.32	2.15	2.25	2.01	1.95	2.01	1.85	2.24	2.01		1.75	0.86	1.03		
C320	Extensive Survey project	2.2	1.99			1.95	2.16	1.85	1.99		2.06	2	1.65	1.94	2.22	1.45	2.01
C401	Quality Surveying and Contract Management	1.5	1.85	0.85	1.34		0.93					0.96	1.56	1.76	1.45		
C402	Design of RCC and Steel Structures	2.1	1.67	1.35					2.1				1.96	1		1.67	1.75
C403	Air Pollution and Control	2.2	1.75				1.76	1.87					1.67	2.07			
C404	Ground Water Hydraulics	2.1	2	1.76	1.84			1.65	2				1.5	1.5		1.65	1.02
C406	Design of Hydraulic Structures	2.0	1.78	1.21	1.65			1.35						1	1.81	1.8	1.95
C407	Urban Transport Planning	2	1.85				0.98					0.85			1.4		
C408	Environmental Protection and Management	1.9	1.78			1.64	1.8	0.9	0.85	0.7	1.78		1.9		1.95		
C409	Computer Aided Detailing of Structures	2.4	2.11	2.45			1.67	2	2				1.7	2.65	1.05		
C410	Geotechnical Engineering Laboratory	2.2	2.16	1.56	2.1	2.01	2.06	1.75	1.8	1.9	1.95		1.85		2.34		
C411	Project Work Phase - 1	2.5	2.84	1	0.8	1.3	0.85	0.76	1.8	2.35	1.21	2.45	1.96	2.67	1.07	1.45	2.24
C412	Design of Pre-stressed Concrete	1.95	1.67	2.15									0.97	1.87	0.94	1.5	2
C413	Rehabilitation & Retrofitting	1.75	1.56	1.45			1.26		1.21			0.8		0.85			
C414	Pavement Design	1.67	1.56	1.55	1.76				1.06					2.16	1.65	1.56	1.76
C415	Project Work Phase - 2	2.55	2.56	1	1.32	0.96	0.85	1.25	2.32	2.01	1.34	2.26	2.05	2.34	1.65	1.65	1.96
C416	Technical Seminar	2.35					1.92	2.06	2				1.05	1.35	1.34		
C417	Internship	2.33	2.34			1.91	2.06	2	1.95	1.45	2.33		2.01	1.44			
Total PO Attainment		96.4	86.8	50.9	26.8	26.1	35.2	48.2	34.7	22.5	18.1	13.7	48.6	62.3	58.5	24.8	28.7
Average PO Attainment in Scale of 3		1.93	1.74	1.02	0.54	0.52	0.70	0.96	0.69	0.45	0.36	0.27	0.97	1.25	1.17	0.50	0.57
DIRECT ATTAINMENTS - 80 % (CIE+SEE+CES)		1.54	1.39	0.81	0.43	0.42	0.56	0.77	0.55	0.36	0.29	0.22	0.78	1.00	0.94	0.40	0.46
Average PO Attainment in %		51	46	27	14	14	19	26	18	12	10	7	26	33	31	13	15
Average Indirect PO Attainment in Scale of 3		2.45	2.36	2.75	2.48	2.74	2.69	2.58	2.77	2.39	2.71	2.29	2.76	2.46	2.77	2.49	2.39
INDIRECT ATTAINMENTS - 20% (Activities + Exit Survey)		0.49	0.47	0.55	0.5	0.55	0.54	0.52	0.55	0.48	0.54	0.46	0.55	0.49	0.55	0.5	0.48
Average Indirect PO Attainment in %		16	16	18	17	18	18	17	18	16	18	15	18	16	18	17	16
TOTAL ATTAINMENT		2.03	1.86	1.36	0.92	0.97	1.10	1.29	1.11	0.84	0.83	0.68	1.33	1.49	1.49	0.89	0.94
TOTAL ATTAINMENT %		68	62	45	31	32	37	43	37	28	28	23	44	50	50	30	31

  
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**Department of Electronics and Communication Engineering**  
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SUBJECTS	CO-PO ATTAINMENT 2018-2022 BATCH												No. of Courses=46		
	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PS01	PS02	PS03
18MAT31	2.3	2.3													
18EC32	1.9	1.9											2.0		
18EC33	2.4	2.4				2.4				2.4		2.4			1.5
18EC34	1.9	1.9	1.9										2.0		
18EC35	1.9	1.6	1.6											2.3	
18EC36	1.4	1.2				1.2				1.3		1.4	1.4		
18ECL37	2.5	2.5	2.5	2.5	2.5	2.4		2.4	2.5	2.4		2.5			
18ECL38	2.2	2.2	2.6	2.6	2.6	2.5		2.5	2.6	2.5		2.6	2.6		
18MAT41	2.4	2.4													
18EC42	2.4	2.4				2.4				2.4		2.4			2.6
18EC43	2.2	2.2													
18EC44	2.2	2.2	2.8									2.8		2.8	2.8
18EC45	2.2	2.2							3.0			3.0		3.0	
18EC46	2.5	2.5										2.5		2.5	
18ECL47	1.8	1.8	2.8	2.7	2.7	2.7		2.8	2.7	2.7		2.8		2.8	
18ECL48	1.8	1.8	2.9	2.9	3.0	2.9		2.8	3.0	2.8		2.9	2.9		
18ES51	2.2	2.2	2.2									2.2			
18EC52	2.2	2.2	2.2									2.2			
18EC53	2.2	2.2	2.2									2.2	2.2		2.2
18EC54	2.2	2.2	2.1										2.2		
18EC55	2.2	2.2	2.2									2.2			
18EC56	1.8	1.8	2.5	2.5	2.5								2.5	2.5	
18ECL57	2.2	2.2	2.2	2.1	2.1			2.1	2.2	2.2				2.2	
18ECL58	2.2	2.3	2.3	2.1	2.1								2.2	2.3	
18EC61	2.2	2.2	3.0	3.0	3.0							3.0			
18EC62	2.2	2.3	2.3	2.1	2.1									3.0	
18EC63	2.2	2.2	2.2									2.2	3.0		3.0
18EC643	2.2	2.2													

18EC646	2.2	2.2	2.2									2.2		2.2	
18ECL66	1.8	1.8	2.9	2.9	2.9	2.9		2.8	2.9	2.8		2.9		2.9	
18ECL67	2.2	2.2	2.2									2.2	2.3	2.3	2.3
18ECMP68	2.2	2.2	2.6	2.5	2.5	2.5		2.6	2.6	2.5	2.2	2.6			
18EC71	2.2	2.2	2.2									2.2			2.2
18EC72	1.8	1.8												1.8	
18EC732	2.0	2.0	2.1	2.0							2.0		2.0		2.0
18EC733	1.8	1.8			2.5			2.5						2.5	
18EC741	1.5	1.5				1.5				1.7		1.5		1.5	
18EC745	2.0	2.0	2.1		2.1				2.0			2.0			
18ECL76	2.2	2.2	2.6	2.5	2.5	2.5		2.6	2.6	2.5		2.6			2.6
18ECL77	2.0	2.0	2.1		2.1				2.0			2.0			
18ECMP78	2.2	2.2	2.6	2.5	2.5	2.5		2.6	2.6	2.5	2.2	2.6			
18EC81	1.8	1.8					2.3	2.3				2.3			2.3
18EC821	1.9							1.9	1.9			1.9			1.9
18ECP83	2.0	2.0	2.1	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0
18ECS84	2.2	2.2	3.0	3.0		2.7			2.9	2.7	2.9	2.8	3.0	2.9	2.9
18CIE85	2.0	2.0	2.1		3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0
Direct PO Attainment	96	94	73	41	46	37	2	36	41	40	12	75	33	45	34
Direct PO Attainment in Scale of 3	2.1	2.0	1.6	0.9	1.0	0.8	0.0	0.8	0.9	0.9	0.3	1.6	0.7	1.0	0.7
Direct PO Attainment in %	69.7	67.8	52.8	29.8	33.2	26.9	1.6	26.0	29.9	28.7	8.9	54.3	24.1	32.9	24.9
INDIRECT ATTAINMENT OF POS	2.1	1.8	1.6	1.7	1.8	1.6	1.7	2.1	2.2	2.1	2.1	1.8	1.2	1.1	1
Average PO and PSO Mapping in %	70	60	53.3	56.67	60	53.3	56.7	70	73.3	70	70	60	40.0	36.7	33.3
Total PO and PSO Mapping in Scale of 3	2.10	1.92	1.59	1.30	1.40	1.20	0.87	1.44	1.55	1.48	1.18	1.71	0.96	1.04	0.87
Total PO and PSO Mapping in %	69.83	63.90	53.09	43.22	46.59	40.11	29.16	47.99	51.63	49.34	39.44	57.14	32.05	34.77	29.11

HEAD OF THE DEPARTMENT  
DEPARTMENT OF ELECTRONICS AND  
COMMUNICATION ENGINEERING  
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**ACHARYA INSTITUTE OF TECHNOLOGY**  
**Bengaluru – 560 107**  
**Department of Electrical and Electronics Engineering**

**Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2018**

Graduation Period: 2018-to-2022		Scheme			2018								No.of Courses : 57			
CID	Title of Course	Programme Outcome(PO)s												PSOs		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101	CALCULUS AND LINEAR	1.7	1.2													
C102	ENGINEERING CHEMISTRY			1.2	1.0				0.6	1.0						
C103	BASIC ELECTRONICS	1.5	1.2													
C104	ENGINEERING CHEMISTRY LAB	1.8	1.8				1.5	1.2				0.8				
C105	TECHNICAL ENGLISH-1						0.8				1.2	0.8	1.2			
C106	ADVANCED CALCULUS AND	1.5	1.0													
C107	Engineering Physics	1.8	1.0									1.0				
C108	BASIC ELECTRICAL	1.5	1.0	1.0	1.2					1.2		1.2	0.6			
C111	ENGINEERING GRAPHICS	1.6	0.8	1.0		0.8	1.0				0.8		1.0			
C112	Engineering Physics LAB	1.5	1.2	0.9												
C113	C Programming for Problem	1.8	0.6	1.0												
C114	BASIC ELECTRICAL	1.7	1.6	1.0	0.8		0.7		0.8	1.2	1.3		0.6			
C115	Elements of mechanical engineerin	1.6		1.0												
C201	Transform Calculus, Fourier	1.6	1.0													
C202	Electric Circuit Analysis	1.6	1.0							1.2						
C203	Transformers and Generators	1.8	1.7				1.8									
C204	Analog Electronic Circuits	1.8	1.2							1.8				1.6		
C205	Digital System Design	2.6	2.5	2.8											3.2	
C206	Electrical and Electronic Measure	1.8	1.7	1.2	2.0	1.7	1.7				1.0	0.8	1.0			
C207	Electrical Machines Laboratory	2.3	1.0	0.9	0.8					1.5						
C208	Electronics Laboratory	2.2	1.5			1.2			1.4							2.0
C211	Complex analysis, probability	1.9	1.6													

C212	Power Generation and	2.0	2.0	2.0				1.9		1.9			2.2			
C213	Transmission and Distribution	2.0	2.0	1.7				1.8					2.0	2.0	2.0	1.0
C214	Electric Motors	1.7	1.2		1.0										1.0	
C215	Electromagnetic Field Theory	2.0	2.0	1.2	2.0	1.0		0.7			0.8		0.9	1.0	1.2	0.9
C216	Operational Amplifiers and	2.0	1.5	1.7										1.3		
C217	Electrical Machines Laboratory	2.0	1.8	1.0	1.0	1.2	0.8	0.6	1.0	2.0	0.8			1.2	1.0	1.5
C218	Op- amp and Linear ICs	2.6	2.6	2.6	2.5		2.4			2.6	2.4				2.6	2.6
C301	Management and	2.4	1.0	3.0		2.0	1.0	1.0	2.0			2.0	1.0			
C302	Microcontroller	1.9	0.9	0.9	0.9	0.7	0.7	0.7		0.7	0.7				0.9	0.9
C303	Power Electronics	1.8	1.6	1.8								1.6			1.8	1.3
C304	Signals and Systems	1.8	1.6	2.0	1.2	2.0							0.8			
C305	Electrical Machine Design	1.8	2.0	1.4										0.8		
C306	High Voltage Engineering	1.6	0.6		0.7			0.7					0.6			
C307	Microcontroller Laboratory	2.3	0.5	1.0		0.9	0.8	1.0		0.7			0.7			
C308	Power Electronics Laboratory	2.1	1.8	1.2	1.8	1.8	0.9		1.8	1.8	2.0			1.1	1.0	1.0
C309	Environmental Studies(EVS)	2.6	2.1	2.3					2.1	2.4				2.1		
C311	Control Systems	2.5	2.5			2.6				2.6					2.5	
C312	Power System Analysis – 1	2.0	1.8	0.8		0.5	1.0							1.2		
C313	Digital Signal Processing	2.0		2.5			2.0	2.0	2.5					2.0		
C314	Professional Elective -1 Renewable Energy Resources	2.2	2.3		2.2	2.2	2.3							2.2		
C315	Control System Laboratory	2.2	1.2		1.3	1.0									1.0	
C316	Digital Signal Processing	2.0		2.5			2.0	2.0	2.5					2.0		
C317	Mini-project	1.7	2.0	1.9	2.0			2.4						1.2	1.5	1.0
C318	Internship	3.0	3.0	2.8	2.7	3.0	2.8	2.6		2.7	2.3	2.2	2.5	2.3		
C401	Power System Analysis – 2	2.5	1.8				1.2	1.6						2.5	1.7	
C402	Power System Protection	1.5	1.7													
C403	Professional Elective - 2	2.0	1.8				0.7	1.2								
C404	Professional Elective - 3	1.3	1.3	0.2									1.3		1.3	1.1
C405	PSS laboratory	2.0	1.8			1.0										
C406	Relay & HV lab	2.2	2.3								1.4		2.0			

C407	Project Work Phase - 1	2.2	2.2	2.2	2.2	2.2	2.2		2.2	2.2	2.2		2.2	2.2	2.2	2.2	
C411	Power System Operation and	2.0	2.0	2.0									2.0	1.9		1.4	1.2
C412	Professional Elective - 4	2.3	2.3			2.3	2.4	2.4	2.3				2.4	2.4			
C413	Project Work Phase - 2	2.2	2.2	2.2	2.2	2.2	2.2		2.2	2.2	2.2		2.2	2.2	2.2	2.2	
C414	Technical Seminar	2.1	2.0	1.0	1.2	0.7	0.8			1.2	0.6	0.7	0.5				
Total PO Attainment		108.0	83.8	53.9	30.8	31.0	33.7	23.8	21.4	30.9	19.7	13.7	29.4	28.9	28.5	18.9	
Average PO Attainment in Scale of 3		1.9	1.5	1.0	0.5	0.6	0.6	0.4	0.4	0.6	0.4	0.2	0.5	0.5	0.5	0.3	
DIRECT ATTAINMENTS – 80% (CIE + SEE + CES)		1.5	1.2	0.8	0.4	0.4	0.5	0.3	0.3	0.4	0.3	0.2	0.4	0.4	0.4	0.3	
Average Direct PO Attainment in %		51.4	39.9	25.7	14.6	14.8	16.0	11.3	10.2	14.7	9.4	6.5	14.0	13.8	13.6	9.0	
Average Indirect PO Attainment in Scale of 3		1.9	2.6	2.1	2.3	2.6	2.2	2.5	2.1	2.6	1.8	1.9	2.4	2.3	2.5	2.2	
INDIRECT ATTAINMENTS – 20% (Activities + Exit Survey)		0.4	0.5	0.4	0.5	0.5	0.4	0.5	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.4	
Average Indirect PO Attainment in %		12.9	17.5	13.7	15.5	17.4	14.9	16.4	14.1	17.2	11.9	12.7	15.9	15.5	16.3	14.7	
TOTAL ATTAINMENT		1.9	1.7	1.2	0.9	1.0	0.9	0.8	0.7	1.0	0.6	0.6	0.9	0.9	0.9	0.7	
TOTAL ATTAINMENT in %		64.4	57.5	39.3	30.2	32.2	30.9	27.7	24.3	31.9	21.3	19.3	29.9	29.3	29.9	23.7	

  
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**ACHARYA INSTITUTE OF TECHNOLOGY**

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**Department of Information Science & Engineering**

**Summary of Average Mapping of COs to POs, for the Batch: 2020**

Graduation Period: 2018-to-2022		Scheme		2018										No.of Courses : 61	
CID	Title of Course	Programme Outcome(PO)s												PSOs	
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C101	Calculus And Linear Algebra	3	2				1	1					2		
C102	Engineering Chemistry	2	1								1		1		1
C103	C Programming For Problem Solving	1	2			1								3	
C104	Basic Electronics	3	2										1		2
C101	Elements Of Mechanical Engineering	3	1					1					1		
C106	Engineering Chemistry Lab	2	1				1	1					1	1	1
C117	C Programming Laboratory	2	2			1					1		1	3	
C108	Technical English-I														
C111	Advanced Calculus And Numerical Methods	3	2												
C112	Engineering Physics	2	1					1					1	3	
C113	Basic Electrical Engineering	2	2										1		3
C104	Elements Of Civil Engineering & Mechanics	3	2										1	2	
C115	Engineering Graphics	1	2			2					1		2		
C112	Engineering Physics Lab	1	1	1				1			2		1	1	
C117	Basic Electrical Engineering Lab	1	1					1			2	1	3		
C118	Technical English-2														
C201	18MAT31 Transform Calculus, Fourier Series And Numerical Techniques	3	2	2									2		
C202	18CS32 Data Structures and Applications	2.1	2.0	2.0									1.9	2.0	

<b>C412   18CSI85 Internship</b>	3	3	3	2	2	2	2	1	3	3	2	2	2	1
<b>Total PO-PSO Mapping</b>	<b>130</b>	<b>114</b>	<b>75.1</b>	<b>31.7</b>	<b>54</b>	<b>19.3</b>	<b>14</b>	<b>14</b>	<b>20</b>	<b>35.5</b>	<b>22.5</b>	<b>87.5</b>	<b>52.8</b>	<b>54.0</b>
<b>Average PO-PSO Mapping in Scale of 3</b>	<b>2.1</b>	<b>1.9</b>	<b>1.2</b>	<b>0.5</b>	<b>0.9</b>	<b>0.3</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.6</b>	<b>0.4</b>	<b>1.4</b>	<b>0.9</b>	<b>0.9</b>
<b>Direct Attainment(80%)</b>	1.71	1.5	0.98	0.42	0.7	0.3	0.19	0.19	0.3	0.5	0.295	1.1	0.7	0.71
<b>Average PO-PSO Mapping in %</b>	<b>71.1</b>	<b>62.4</b>	<b>41</b>	<b>17.3</b>	<b>30</b>	<b>10.5</b>	<b>7.76</b>	<b>7.74</b>	<b>11</b>	<b>19.4</b>	<b>12.3</b>	<b>47.8</b>	<b>28.84</b>	<b>29.5</b>
<b>Average Indirect Attainment in scale of 3</b>	<b>2.5</b>	<b>2.3</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.5</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.5</b>	<b>2.5</b>	<b>2.1</b>	<b>2.2</b>
<b>Indirect Attainment(20%)</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>
<b>Average Indirect Attainment in %age</b>	<b>17</b>	<b>15</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>14</b>	<b>15</b>
<b>Total Attainment</b>	<b>2.2</b>	<b>1.9</b>	<b>1.5</b>	<b>0.9</b>	<b>1.2</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>1.0</b>	<b>0.8</b>	<b>1.6</b>	<b>1.1</b>	<b>1.1</b>
<b>Total Attainment in %</b>	<b>74</b>	<b>65</b>	<b>48.8</b>	<b>29.7</b>	<b>40</b>	<b>25.2</b>	<b>23</b>	<b>23</b>	<b>26</b>	<b>32.8</b>	<b>26.79</b>	<b>54.69</b>	<b>37.1</b>	<b>38.3</b>



**Head of the Department**  
Department of Information Science & Engg  
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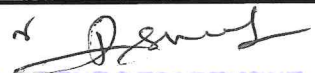


## Department of Mechanical Engineering Acharya Institute of Technology

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Summary of PO and PSOs Attainment for the Batch: 2018																		
Graduation Period: 2018-to-2022		Scheme			2018			No.of Courses					45		PSOs			
CID	Title of Course	Programme Outcome(PO)s																
		1	2	3	4	5	6	7	8	9	10	11	12					1
C201	TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL METHODS	1.7	1.7														1.7	
C202	MECHANICS OF MATERIALS	1.4	1.5			0.6				0.6	0.6		1.4	1.4	1.4			
C203	BASIC THERMODYNAMICS	1.7	1.7					1.6			1.6		1.7	1.6	1.6			
C204	MATERIAL SCIENCE	2.2											2.1			2.2		
C205	METAL CUTTING AND FORMING	2.1	2.0										2.0			2		
C206	COMPUTER AIDED MACHINE DRAWING	2.2				2.2					2.2		2.2	2.2		2.2		
C207	MATERIAL TESTING LABORATORY	2.5	2.5	2.5	2.6		2.5		2.5	2.6	2.5		2.5	2.5	2.5		2.5	
C208	WORKSHOP AND MACHINE SHOP PRACTICE	2.4	2.4	2.4			2.3			2.5	2.2		2.4			2.4		
C211	COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS	2.9	2.9														2.9	
C212	APPLIED THERMODYNAMICS	2.0	1.7					1.4			2.1		2.2	2.1	1.4			
C213	FLUID MECHANICS	2.6	2.6						2.6				2.6	2.6	2.6			
C214	KINEMATICS OF MACHINE	0.8	0.6								0.8		0.8	0.8	0.6	0.4		
C215	METAL CATING & WELDING	2.7											2.7	2.7		2.6		
C216	MECHANICAL MEASUREMENTS AND METROLOGY	1.7	1.7	1.7							1.7		1.7			1.9	1.7	
C217	MECHANICAL MEASUREMENTS AND METROLOGY LAB	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0			2	2	
C218	FOUNDRY, FORGING AND WELDING LAB.	2.6	2.6	2.6			2.6		2.6	2.6			2.6			2.6		
C301	MANAGEMENT AND ECONOMICS	2.1	1.9										2.0				2	
C302	DESIGN OF MACHINE ELEMENTS- I	0.7	1.3	1.3		1.3					0.8		1.0		0.7	0.5		
C303	DYANMICS OF MACHINES	2.2	2.3	2.2									2.2		2.2			
C304	TURBOMACHINES	2.1	2.0										1.8	2.1	2			
C305	FLUID POWER ENGINEERING	1.1	1.0	1.1	1.2								1.1	1.2	1.1	1.1		
C306	OPERATIONS MANAGEMENT	1.9	1.9	2.0	2.1	2.3	2.0	2.0	1.8			2.0	2.1	2.1	1.9	2.1		
C307	FLUID MECHANICS/MACHINES LABORATORY	2.3	2.4	2.3			2.2		2.3	2.3			2.2			2.3		
C308	ENERGY CONVERSION LABORATORY	2.7	2.7	2.7	2.7		2.7		2.5	2.7	2.7		2.7	2.7	2.6			
C309	ENVIRONMENTAL STUDIES	2.4					2.7	2.1	2.7					2.1	2.6		2.1	

Summary of PO and PSOs Attainment for the Batch: 2018																		
Graduation Period: 2018-to-2022		Scheme			2018			No.of Courses					45		PSOs			
CID	Title of Course	Programme Outcome(PO)s																
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	
C311	FINITE ELEMENT METHODS	2.4	2.4	2.5								2.5		2.4				
C312	DESIGN OF MACHINE ELEMENTS - II	1.5	1.3	1.5							1.4	1.4	1.5	1.4	1.3	1.3		
C313	HEAT TRANSFER	2.0	1.8						1.9			1.9	1.9	1.9				
C314	NON-TRADITIONAL MACHINING	2.5	2.5									2.5			2.5			
C314	COMPOSITE MATERIAL TECHNOLOGY	2.4	2.5	2.4								2.4			2.4			
C316	COMPUTER AIDED MODELING& ANALYSIS LAB	2.7	2.7	2.7	2.9	2.9	2.7		2.4	2.9	2.6	2.7	2.7			2.7		
C317	HEAT TRANSFER LABORATORY	1.9	2.0	1.9	1.9		2.0		2.0	1.9	2.0	1.9	1.9	2		2		
C318	MINI PROJECT	2.7	2.7			2.7				2.7		2.7	2.7	2.7	2.7			
C401	CONTROL ENGINEERING	2.0	1.9		1.9						2.0	2.0	2	1.9				
C402	COMPUTER AIDED DESIGN AND MANUFACTURING	2.1		2.1								2.1	2.1					
C403	AUTOMATION AND ROBOTICS	2.1		2.1	1.9							2.0		2.1	2	2		
C404	MECHATRONICS	2.2	2.2	2.2							2.2	2.2	2.2	2.2				
C406	CIM LAB	2.6			2.6							2.6	2.6			2.6		
C407	DESIGN LABORATORY	2.4	2.5	2.5	2.6		2.5		2.6	2.6	2.4	2.4	2.5	2.5		2.5		
C408	PROJECT PHASE-I	2.9	2.9			2.9				2.9		2.9	2.9	2.9	2.9			
C411	ENERGY ENGINEERING	2.5	2.5									2.5	2.5	2.5				
C412	NON- DESTRUCTIVE TESTING AND EVALUATION	2.0	2.0								2.0	2.0			2	2		
C413	PROJECT PHASE II	2.3	2.5			2.3				2.3		2.3	2.3	2.3	2.1			
C414	TECHNICAL SEMINAR PRESENTATION	1.9	2.0						2.0	2.0	2.0	2.0	3	2.6	3			
C415	INTERNSHIP	2.6	2.6	2.6		2.6	2.6		2.6	2.7	2.6	2.6	2.7	2.7	2.6	2.6		
Direct	Total PO and PSO Attainment	96.3	82.3	45.5	24.4	21.8	28.7	7.07	32.6	35.2	38.5	4.59	89.7	61.6	55.3	47.8	32.6	
	Average PO and PSO Attainment in Scale of 3	2.14	1.83	1.01	0.54	0.48	0.64	0.16	0.73	0.78	0.85	0.10	1.99	1.37	1.23	1.06	0.72	
	Average PO and PSO Attainment in %	71	61	34	18	16	21	5	24	26	28	3	66	46	41	35	24	
Indirect	Average PO and PSO Attainment in Scale of 3	2.2	1.2	1.1	1	2.1	1.9	1.1	1.3	1.8	1.1	0.8	1.7	1.2	1	1.1	1.2	
	Average PO and PSO Attainment in %	73	40	37	33	70	63	37	43	60	37	27	57	40	33	37	40	
Overall	Average PO and PSO Attainment in Scale of 3	2.15	1.7	1.03	0.63	0.81	0.89	0.35	0.84	0.99	0.9	0.24	1.94	1.34	1.18	1.07	0.82	
	Average PO and PSO Attainment in %	71.7	56.7	34.3	21.1	26.9	29.7	11.5	28	32.9	30.1	8.05	64.5	44.5	39.4	35.7	27.3	

  
**HEAD OF THE DEPARTMENT**  
 Mechanical Engg.  
**ACHARYA INSTITUTE OF TECHNOLOGY**



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Mechatronics Engineering

Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2022

Graduation Period: 2018-to-2022		Scheme		2018										No.of Courses : 59		
CID	Title of Course	Programme Outcome(POs)										PSOs				
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101	CALCULUS AND LINEAR ALGEBRA	1.80	1.80													
C102	ENGINEERING CHEMISTRY	1.90	1.70				1.70	1.70					1.90			
C103	C PROGRAMMING FOR PROBLEM SOLVING	1.56	1.50	1.50											1.80	
C104	BASIC ELECTRONICS	1.63	1.50												1.60	
C105	ELEMENTS OF MECHANICAL ENGINEERING	1.29	1.20					1.30					1.27	2.30		
C106	ENGINEERING CHEMISTRY LAB	2.66	2.70				2.70	2.70					2.60			
C107	C PROGRAMMING LAB	2.67	2.68	2.70											1.20	
C108	TECHNICAL ENGLISH-I						1.06				1.06	1.06	1.06			
C111	ADVANCED CALCULUS AND NUMERICAL METHODS	1.70	1.70													
C112	ENGINEERING PHYSICS	2.40	2.40										2.40	1.40	1.40	1.10
C113	BASIC ELECTRICAL ENGINEERING	2.04	1.99	2.06	2.07	2.10	2.10	2.10	2.10	2.11	2.08	2.10	2.09		1.20	
C114	ELEMENTS OF CIVIL ENGINEERING	1.69	1.67							1.60	1.60		1.60			
C115	ENGINEERING GRAPHICS	2.67	2.67	2.70		2.67	2.70				2.67		2.67	2.20		
C116	ENGINEERING PHYSICS LAB	2.00	2.20	2.50										1.30	1.40	
C117	BASIC ELECTRICAL ENGINEERING LABORATORY	2.75	2.86	2.80	2.80		2.40		2.40	2.86	2.56		2.68		1.10	
C118	TECHNICAL ENGLISH-2						1.78					1.78	1.78	1.78		
C201	TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUES	1.80	1.80													
C202	MATERIAL SCIENCE AND	1.64											1.57		1.66	
C203	MECHANICS OF MATERIALS	2.04	1.96	1.93	1.70									2.04		1.99
C204	CONTROL SYSTEMS	1.90	1.88	1.88	1.88	1.86								1.90	1.90	
C205	ANALOG AND DIGITAL ELECTRONICS	1.43	1.52	1.50											1.50	1.50
C206	COMPUTER ORGANIZATION	2.36	2.36												2.40	
C207	MACHINE SHOP AND MATERIAL TESTING LAB	2.58	2.48	2.43	2.40									2.49	2.55	2.55
C208	ANALOG AND DIGITAL ELECTRONICS LAB	2.63	2.63	2.63			2.63			2.63	2.63	2.63	2.63		2.62	2.62
C211	COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS	2.70	2.70													
C212	FLUID MECHANICS AND MACHINES	2.37	2.33	2.24	2.25									2.29		2.30
C213	MICROCONTROLLER	2.20	2.02	1.60	2.42	2.83							2.42		2.27	2.80
C214	MANUFACTURING TECHNOLOGY	2.14	2.12	2.10	2.30	2.00	2.03	2.10					2.10	2.03	2.30	2.10
C215	THEORY OF MACHINES	2.48	2.46	2.48	2.45										2.47	2.45
C216	INSTRUMENTATION AND MEASUREMENTS	2.15	2.13		2.10										2.15	2.15
C217	FM AND PNEUMATIC LABORATORY	2.65	2.67	2.72										2.68		2.68
C218	MICROCONTROLLER LABORATORY	2.60	2.70	2.70											2.70	2.70
C301	TECHNOLOGICAL INNOVATION MANAGEMENT AND ENTREPRENEURSHIP	2.28	2.26						2.30	2.30	2.27	2.30				
C302	DESIGN AND ANALYSIS OF MACHINE ELEMENTS	2.26	2.24	2.24	2.24									2.26		2.23
C303	VIRTUAL INSTRUMENTATION	2.58	2.62	2.59	2.64	2.60								2.60	2.61	2.60
C304	HYDRAULICS AND PNEUMATICS	2.23	2.20	2.20	2.28		2.20							2.40	2.40	2.40
C305	MICRO AND SMART SYSTEMS TECHNOLOGY	2.70		2.70		2.70	2.70						2.70			
C306	WIRELESS NETWORKS & COMMUNICATIONS	2.80	2.80	2.78	2.80	2.77									2.80	
C307	VIRTUAL INSTRUMENTATION- LABORATORY	2.86	2.87	2.87	2.90	2.87								2.89	2.89	2.89
C308	MSST -LABORATORY	2.31	2.27	2.24	2.23	2.20							2.30	2.30	2.30	2.28
C311	PLC & SCADA	2.19	2.19	2.19	2.18	2.18									2.18	2.18
C312	POWER ELECTRONICS	3.97	2.97	2.94	2.97	2.95									2.97	2.97
C313	COMPUTER AIDED MACHINE DRAWING	2.47	2.53	2.60	2.60								2.40	2.49	2.50	2.53
C314	SATELLITE COMMUNICATION	2.90	2.90	2.90	2.90		2.90						2.90	2.90	2.90	2.90
C315	PLC AND SCADA- LABORATORY	2.30	2.30	2.30	2.30	2.30									2.30	2.30
C316	POWER ELECTRONICS - LABORATORY	2.90			2.90										2.90	
C317	MINI-PROJECT	2.37	2.37	2.37	2.37	2.37	2.20	2.20	2.50	2.48	2.65	2.65	2.48	2.48	2.48	2.48
C401	INDUSTRIAL ROBOTICS	2.71	2.76	2.63	2.78	2.73				2.60		2.80	2.70	2.68	2.76	2.74
C402	THERMAL ENGINEERING	2.60	2.60	2.60	2.60									2.60		2.60
C403	REAL TIME SYSTEMS	2.82	2.83	2.84	2.85	2.85									2.83	2.83
C404	DIGITAL IMAGE PROCESSING	1.69	1.12												1.50	1.50
C405	ROBOTICS LAB			2.90	2.90								2.90	2.90	2.90	2.90

C406	THERMAL -LABORATORY	2.33	2.23	2.04	2.23									2.04	2.90	2.23
C407	PROJECT WORK PHASE - I	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.30	2.30	2.30
C411	AUTOMOTIVE ELECTRONICS & HYBRID VEHICLES	2.70	2.67	2.69											2.72	2.66
C412	COMMUNICATION SYSTEM	2.85	2.85												2.85	2.85
C413	PROJECT WORK PHASE - II	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.68	2.68	2.65	2.65	2.68	2.68	2.68	2.68
C414	TECHNICAL SEMINAR	2.70	2.70	2.70	2.70					2.70	2.70			2.30	2.30	2.30
C415	INTERNSHIP	2.75	2.75	2.75		2.75	2.80		2.90	2.60	2.90	2.80	2.80	2.75	2.75	2.75
	DIRECT ATTAINMENT	1.72	1.62	1.99	3.00	2.28	3.00	1.94	2.62	3.00	2.64	3.00	2.94	2.46	2.82	2.15
	INDIRECT ATTAINMENT	2.50	2.50	2.50	2.50	2.50	2.50	2.20	2.20	2.20	2.20	2.20	2.20	2.50	2.50	2.50
	Average of Total PO Attainment scale (0-3)	1.88	1.80	2.09	2.90	2.33	2.90	1.99	2.53	2.84	2.55	2.84	2.79	2.46	2.76	2.22
	Average of Total PO Attainment %	62.60	59.97	69.80	96.67	77.52	96.67	66.40	84.43	94.67	85.14	94.67	93.07	82.14	91.86	74.06

**HEAD OF THE DEPARTMENT**  
**MECHATRONICS ENGINEERING**  
 Acharya Institute of Technology  
 Prof. Jayant Singh Bhowmik, 850107



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Master of Business Administration

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2020-22**

Graduation Period: 2020-to-2022		Scheme		2020		No.of Courses		35	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C101	MANAGEMENT & ORGANIZATIONAL BEHAVIOUR (20MBA11)	2.7	2.25	2.1	2.1	2.51	1.5	2.025	2.025
C102	MANAGERIAL ECONOMICS (20MBA12)	2.52	2.52		2.1		1.8	2.16	2.52
C103	ACCOUNTING FOR MANAGERS (20MBA13)	2.7	2.1		1.8			2.25	2.25
C104	BUSINESS STATISTICS (20MBA14)	2.52	2.7		1.8		2.25	2.52	2.52
C105	MARKETING MANAGEMENT (20MBA15)	2.7	2.7	1.8	2.7	2.34	2.7	2.55	2.55
C106	MANAGERIAL COMMUNICATION (20MBA16)		2.025	1.8	2.475	2.34	1.8	1.8	1.8
C201	HUMAN RESOURCE MANAGEMENT (20MBA21)	2.475	2.025	2.1	1.8	2.6325	2.025	1.8	
C202	FINANCIAL MANAGEMENT (20MBA22)	2.7	2.16		1.8		1.8		2.7
C203	RESEARCH METHODOLOGY (20MBA23)	2.475	2.25		1.8		1.8	2.7	1.8
C204	OPERATIONS RESEARCH (20MBA24)	2.7	2.25		1.8		1.8		2.1
C205	STRATEGIC MANAGEMENT (20MBA25)	2.52	1.98	1.8	1.98		2.34		1.8
C206	ENTREPRENEURSHIP AND LEGAL ASPECTS (20MBA26)	2.4	1.8	1.8	2.25	2.34	2.4	1.8	1.8
C301	EMERGING EXPONENTIAL TECHNOLOGIES (20MBA301)		1.35		1.8	1.17	1.575	1.575	1.35
C302	Technology & Operational Strategy (20MBA302)		1.62		1.26	1.872	1.98		2.16
C303	SERVICES MARKETING (20MBAMM303)	2.4	1.5	1.35	2.1	2.34	2.4		1.35
C304	MARKETING RESEARCH & ANALYTICS (20MBAMM304)	1.8	2.475		1.575	2.0475	1.35	2.025	
C305	INVESTMENT MANAGEMENT (20MBAFM303)	1.8	2.475		1.575	2.0475	1.35	2.025	
C306	DIRECT TAXATION (20MBAFM304)	2.7	2.25		2.025		0.9	0.9	
C307	BANKING & FINANCIAL SERVICES (20MBAFM305)	2.7	2.025		1.575		1.8	0.9	2.7
C308	ADVANCED FINANCIAL MANAGEMENT (20MBAFM306)	2.7	2.7		0.9		1.8	0.9	2.7
C309	HUMAN RESOURCE ANALYTICS (20MBAHR304)	2.475	2.475		1.575	2.34	2.025	2.025	1.575



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Master of Business Administration

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2020-22**

Graduation Period: 2020-to-2022		Scheme		2020		No.of Courses		35	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C310	ORGANISATION STUDY (20MBAOS307)	2.475	2.025	1.8	2.025	2.0475	2.25	1.125	
C401	B2B MARKETING MANAGEMENT (20MBAMM401)	2.55	2.025	1.56	1.575	1.755	1.125	1.35	
C402	LOGISTICS AND SUPPLY CHAIN MANAGEMENT (20MBAMM402)	2.55	2.025	2.76	2.025	2.6325	2.7	2.4	1.575
C403	DIGITAL MARKETING MANAGEMENT (20MBAMM403)	2.025	1.8	2.94	1.8	1.17	2.1	2.4	1.2
C404	STRATEGIC BRAND MANAGEMENT (20MBAMM404)		1.98	2.192	1.8	2.574	2.1	1.8	1.8
C405	RISK MANAGEMENT AND INSURANCE (20MBAFM401)	1.575	1.125	2.112	1.35	2.6325	2.025	2.025	
C406	FINANCIAL DERIVATIVES (20MBAFM402)	1.575	1.35		1.575	2.0475	2.25	2.7	2.025
C407	INDIRECT TAXATION (20MBAFM403)	2.475	2.25	1.596	1.8	2.0475	1.8	1.8	1.8
C408	MERGERS, ACQUISITIONS & CORPORATE RESTRUCTURING (20MBAFM404)	1.575	2.45	1.872	1.575	1.755	2.1	1.35	1.35
C409	CORPORATE VALUATION (20MBAFM405)	1.575	2.775	2.94	2.7	2.925	2.7	1.8	
C410	INTERNATIONAL FINANCIAL MANAGEMENT (20MBAFM406)	1.575	2.025	2.4	1.575	1.755	1.35	1.35	1.8
C411	ORGANISATIONAL LEADERSHIP (20MBAHR401)	1.8	1.575		1.125	2.0475	1.575	1.8	1.35
C412	PERSONAL GROWTH AND INTERPERSONAL EFFECTIVENESS (20MBAHR402)	1.575	1.125	2.072	2.25	1.755	2.7	2.25	
C413	PROJECT REPORT (20MBAPR407)	2.5	2.8	2.9	2.6	2.77	2.567	2.89	2.88
<b>Total PO PSO Attainment</b>		70.81	72.96	39.894	64.565	53.8935	66.737	56.995	51.48
<b>Average Total PO PSO Attainment (Scale : 0-3) and (%)</b>		2.02	2.08	1.14	1.84	1.54	1.91	1.63	1.47
		67.44	69.49	37.99	61.49	51.33	63.56	54.28	49.03

Head of the Department  
Department of MBA  
Acharya Institute of Technology  
Snldevanahlli, Bangalore-560 107



**Acharya Institute of Technology**  
**Department of Master of Business Administration**  
**Attainment of PO & PSO**

**2020-22 Batch**

Direct attainment	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
CIE+SEE+CES	2.02	2.08	1.14	1.84	1.54	1.91	1.63	1.47

Indirect attainment	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
Activities	2.55	2.33	2.51	2.40	2.24	2.04	2.78	1.60
Program exit survey	1.92	2.04	1.99	2.03	2.02	1.94	2.00	2.07
Activities (70 % )	1.79	1.63	1.76	1.68	1.57	1.43	1.94	1.12
Program exit survey (30 %)	0.58	0.61	0.60	0.61	0.61	0.58	0.60	0.62
Total indirect attainment	2.36	2.24	2.36	2.29	2.17	2.01	2.54	1.74

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>Direct attainment (80%)</b>	1.62	1.67	0.91	1.48	1.23	1.53	1.30	1.18
<b>Indirect attainment (20%)</b>	0.47	0.45	0.47	0.46	0.43	0.40	0.51	0.35
<b>Total attainment</b>	<b>2.09</b>	<b>2.12</b>	<b>1.38</b>	<b>1.93</b>	<b>1.67</b>	<b>1.93</b>	<b>1.81</b>	<b>1.52</b>
<b>Total attainment in %</b>	<b>69.70%</b>	<b>70.52%</b>	<b>46.11%</b>	<b>64.45%</b>	<b>55.54%</b>	<b>64.24%</b>	<b>60.37%</b>	<b>50.82%</b>

Head of the Department  
 Department of MBA  
 Acharya Institute of Technology  
 Soldevanahalli, Bangalore-560 1



# ACHARYA INSTITUTE OF TECHNOLOGY

Affiliated to Visvesvaraya Technological University, Belagavi,  
Approved by AICTE, New Delhi, Recognized by Govt. of Karnataka and  
Accredited by NBA (AE, BT, CSE, ECE, ME, MT)

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## PO Attainment (Batch 2017-2021)



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Aeronautical Engineering

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2017**

Graduation Period: 2017-to-2021		Scheme		2017		No.of Courses						62					
Total Attainment of Programme Outcomes														Programme Specific Outcomes			
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
C101	Engineering Mathematics	1.6	1.6														
C102	Engineering Chemistry	1.3	1.5	1.5			1.5	1.5									
C103	Programming in C and Data Structures	0.8	0.8										0.8				
C104	Computer Aided Engineering Drawing	1.8	1.8	1.8		1.8				1.8	1.8		1.8				
C105	Basic Electronics	1.2	1.6														
C106	Computer Programming laboratory	2.2	2.2	2.2	2.2												
C107	Engineering Chemistry laboratory	2.1	2.1				2.1	2.1	2.1		2.1		2.1				
C111	Engineering Mathematics II	1.1	1.1														
C112	Engineering Physics	1.5	1.5										1.5				
C113	Elements of Civil Engineering and Mechanics	1.2	1.2			1	1		1		1.2	1					
C114	Elements of Mechanical Engineering	1.4	1.5						1.2				1.4				
C115	Basic Electrical Engineering	1	0.9										1				
C116	Workshop Practice	2.2	2.2	2.2		2.2	2.2			2.2			2.2				
C117	Engineering Physics Laboratory	2.3	2.3	2.2													
C201	Engineering Mathematics III	2.1	2.1														
C202	ELEMENTS OF AERONAUTICS	2.3	2.3	2.3	2.3								2.3	2.3	2.3		2.3
C203	Aero-Thermodynamics	2	1.9	1.8									1.9	1.9		2	
C204	Mechanics of Materials	1.8	1.8	1.8									1.8	1.8		1.8	
C205	Aerodynamics-I	1.9	1.9	1.9									1.9	1.9		1.9	
C206	MEASUREMENT & METROLOGY	1.3	1.3	1.3									1.3	1.3	1.3		
C207	Mechanical Measurements and Metrology Lab	2.8	2.8		2.8						2.8			2.8	2.8	2.7	
C208	Machine Shop Lab				2.9	2.9								2.9			
C209	Constitution of India						0.7		0.8				0.8				
C211	Engineering Mathematics III	2.1	2.1														
C212	Aerodynamics-I	2.1	2.1	2.1									2.1	2.1	2.1	2.1	
C213	Aircraft Propulsion	2.1	2.1	2.1							2.1		2.1	2.1		2	
C214	MECHANISMS AND MACHINE THEORY	0.9	0.9	0.9									0.9	0.9			0.9
C215	Aircraft Material Science	1.3	1.3										1.3	1.3	1.3		
C216	Turbomachines	1.3	1.4										1.4	1.3		1.4	
C217	Material Testing Lab			2.7	2.7									2.7			
C218	Computer Aided Aircraft Drawing	2.2	2.1	2.1	2.2	2.2	2.1					2.1	2.1	2.2	2.2		
C301	Management and Entrepreneurship	2							2	2	2	2	2		2		
C302	Introduction to Composite Materials	2.5	2.5	2.5									2.5	2.5	2.5		
C303	Heat and Mass Transfer	1.9	1.8		2								1.9			1.9	
C304	Aircraft Structures-I	1.9	1.9	1.9									1.9	2	1.9		
C305	Gas Dynamics	2.1	2.1										2.1	2.1			
C306	Basics of Rockets & Missiles	1	1.5	1.5	1.6	1.6								1	1.5	1.6	1.6
C307	Aerodynamics laboratory				2.6	2.6								2.6	2.6	2.6	2.6
C308	Energy Conversion and Fluid Mechanics Lab	2.5	2.8		2.8					2.8	1.7		2.8			2.3	
C311	Aerodynamics-II	2.9	2.9	2.9										2.9	2.9	2.9	




ACHARYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF AERONAUTICAL ENGINEERING  
BENGALURU - 560107

Batch 2017 - 2021

Academic Year	Sl No.	Event	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
2018-19	1	All India seminar on 'Engineering Insight into design and testing of Aircraft				2.71	2.75		2.60	2.56	2.47	2.84			2.64			
	2	Invited talk on Internet of Aircraft Things				2.70	2.07		2.82	2.73	2.64	2.93			2.35			
	3	Knowledge sharing session by AE's Alumni				2.50	2.49			2.61	2.73	2.80			2.74			
	4	Invited talk - Innovations & PRISM Funding schemes				2.68	2.58		2.61	2.68	3.00	2.52			2.55			
	5	Educational visit -Goa Shipyard Limited and Indian Naval Aviation Museum, Goa	2.50					2.66	2.70	2.78		2.62	2.64		2.36	2.34	2.62	2.60
2019-20	1	Invited talk - The revolutionary concept of boundary layer theory and its prevalence in Aeronautics	2.00				2.57	2.71	2.71					2.48	2.71	2.60	2.60	1.00
	2	Educational visit to Pratt & Whitney training centre, Hyderabad	2.66	2.71			2.48	2.30	2.45	2.68	2.41	2.61		2.50	1.00	1.58	1.80	1.00
	3	Short term training program - Internet of Things	2.75				2.35	2.55	2.63	2.68		2.75		2.63	2.55	2.68	2.43	2.00
	4	Invited talk on Glitz and Glam of Aerospace Engineering	2.58				2.50	2.55		2.20	2.55			2.35	2.45	2.53	2.63	1.00
2020-21	1	Seminar - Trends of millennials contribution and challenge in Aerospace Engineering	2.05		1.90	1.95	2.10	2.25	2.05	2.40	2.00	2.05	2.25	2.45	2.50			2.25
	2	Workshop - Foundation on practical aspects of jet engine design	1.72	2.11	2.06	1.83	1.78	2.17	2.06	1.94	1.67	2.17	2.50	2.72	2.22	2.56		
	3	Webinar – Aero Engine Performance and Manufacturing Aspects		2.72	2.86	1.92	2.61		2.56	2.31	2.28	2.19	2.22	2.22	2.64	2.72	2.72	
Total attainment			16.26	7.55	6.82	16.29	26.27	17.19	25.18	27.56	21.74	25.48	9.61	17.35	28.72	16.99	14.79	9.85
Average attainment			1.35	0.63	0.57	1.36	2.19	1.43	2.10	2.30	1.81	2.12	0.80	1.45	2.39	1.42	1.23	0.82

LIKHITH RAJ R	1AY17AE028	AIT17BEAE078	3	2	3	3	3	3	3	3	3	3	3	3	3	3	2	1
DE RICO SOUSA NELITO	1AY17AE015	AIT17BEAE061	3	3	3	2	3	3	3	2	3	3	2	3	3	3	3	1
Total			93	95	92	96	94	92	95	96	97	101	94	102	105	95	95	37
Total attainment			2.657	2.714	2.629	2.743	2.686	2.629	2.714	2.743	2.771	2.886	2.686	2.914	3.000	2.714	2.714	1.057

  
**Head of the Department**  
 Aeronautical Engineering  
 Acharya Institute of Technology  
 Bangalore - 560 107

*Department of Biotechnology*

2017-21	Direct Attainment															
Subject code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
17MAT11	Engineering mathematics-I	1.3	1.3											1.3		1.3
17PHY12	Engineering Physics	1.7	1.7										1.7	1.7		
17CIV13	Elements of civil engineering and mechanics	1.35	1.35			1.35	1.35		1.35		1.35	1.35				
17EME14	Elements of mechanical engineering	1.6	1.6					1.6					1.6			
17ELE15	Basics electrical engineering	1.15	1.15										1.15			
17WSL16	Workshop practice	2.35	2.35	2.35		2.35	2.35			2.35			2.35			
17PHYL17	Engineering Physics Lab	2.75	2.75	2.75												
17MAT21	Engineering mathematics-I	0.9	0.9											0.9		0.9
17CHE22	Engineering Chemistry	1.75	1.75	1.75			1.75	1.75						1.75		1.75
17PCD23	Programming in C and Data structure	1.35	1.35	1.35									1.35		1.35	
17CED24	Computer aided engineering drawing	1.9	1.9	1.9		1.9				1.9	1.9		1.9		1.9	
17ELN25	Basic electronics	1.34	1.4	1.47									1.11	1.27	3	
17CPL26	Computer programming laboratory	3	3	3	3										3	
17CHEL27	Engineering chemistry laboratory	2.95	2.95				2.95	2.95	2.95		2.95		2.95	2.95		
17MAT31	Mathematics-III	1.92	1.83	0	1.85	0	0	0	0	0	0	0	2.17	1.83	1.97	1.81
17BT32	Unit Operations	1.49	1.54	0	1.42	0	0	0	0	0	0	0	1.53	1.27	0	1.43
17BT33	Biochemistry	1.99	1.83	0	1.83	0	0	0	0	0	0	0	1.83	1.86	0	0
17BT34	Microbiology	1.73	0	0	0	0	1.73	0	2.03	0	0	0	1.43	1.73	0	0
17BT35	Cell Biology and Genetics	0.95	1	0	1.05	0	0	0	0	0	0	0	0	0.85	0	0
17BT36	Basics of Computer Applications	2.14	2.17	2.15	2.17	2.15	0	0	0	0	0	0	0	0	2.15	0
17BTL37	Unit Operations Lab	1.57	1.47	0.67	0	0	0	2	0	0	0	0	0	1.27	0	1.13
17BTL38	Microbiology Lab	2	1.9	0	1.7	0	0	0	0	1.7	2.3	0	0	2	0	1.7
17CPH39	Constitution of India						0.5		0.5				0.5			

17BT41	Biostatistics and Biomodeling	1.75	1.75	1.5	1.9	1.75	0	0	0	0	0	0	1.83	1.63	1.71	1.87
17BT42	Biochemical Thermodynamics	1.71	1.89	0	1.87	0	1.73	0	0	0	0	0	1.47	1.53	0	1.73
17BT43	Molecular Biology	1.77	1.5	0	0	0	1.77	0	0	0	0	0	1.83	1.8	0	0
17BT44	Bioprocess Principles and Calculations	1.82	1.77	0	2.13	0	1.82	1.27	0	0	0	0	2.07	0	0	1.82
17BT45	Structural Biology	0.67	0	0.6	0.78	0.78	0.78	0	0	0	0	0	0	0.67	0	0.72
17BT46	Clinical Biochemistry	1.95	1.82	0	1.8	0	0	0	0	0	0	0	2.03	1.93	0	1.9
17BTL47	Cell and Molecular Biology Lab	1.2	0	1.35	1.35	1.16	1.35	0	0	0	0	0	0	1.11	0	1.23
17BTL48	Clinical Biochemistry Lab	3	3	0	3	3	0	3	3	3	3	0	3	3	0	3
17BT51	Bio-Kinetics and Bio-reaction Engineering	1.86	1.78	1.67	1.67	0	0	0	0	0	0	0	1.97	1.93	0	1.83
17BT52	Genetic Engineering and Applications	1.93	0	0	0	0	1.77	0	0	0	0	0	1.4	1.91	0	2.27
17BT53	Immunotechnology	1.5	2	1.2	0	0	2	1.2	0	0	0	0	2	1.73	0	2
17BT54	Bioinformatics	1.51	1.47	1.7	0	1.65	0	0	0	0	0.83	0	0.83	1.43	1.48	0
17BT553	Animal BT	1.67	2.07	0	2.13	1.13	2	0	1.13	2.13	2.13	0	2.13	1.57	0	2.13
17BT563	BT for Sustainable Environment	2.2	1.98	0	0	2.33	2.15	2.12	0	1.93	2.33	0	1.93	2.09	0	2.33
17BTL57	Genetic Engg. And Immunotechnology Lab	2.9	3	0	3	3	2.87	0	2.8	2.8	3	0	3	2.92	0	0
17BTL58	Bioinformatics Lab	3	2.98	2.95	3	2.98	0	0	3	0	3	0	3	2.98	2.98	0
17BT61	Bio-business and Entrepreneurship	0	3	0	3	0	3	3	3	0	0	3	3	3	0	3
17BT62	Bioprocess Control and Automation	0.74	0.74	0.75	0.73	0.75	0.75	0	0	0	0	0	0	0.75	0.75	0.74
17BT63	Enzyme Technology and Biotransformation	3	3	0	3	0	3	0	0	0	3	0	3	3	0	3
17BT64	Bioprocess Equipment Design & CAED	1.34	1.45	1.58	0.7	1.62	0	0	0	0	0	0	1.6	1.58	0	0.7
17BT653	Cell Culture Techniques	2.5	2.82	2.93	2.3	0	3	2.9	2.3	0	2.5	0	0	2.67	0	0
17BT663	Nano BT	2.3	0	3	2.33	3	2.2	2.7	0	0	0	0	3	2.14	0	3
17BTL67	Bioprocess Control and Automation Lab	1.83	1.69	2.75	2.5	0	0	2.5	0	0	0	0	0	1.64	0	1.38

17BTL68	Biokinetics and Enzyme Technology Lab	1.2	1.5	0	1.5	0	1.5	0	0	0	0	0	0	1.2	0	1.5
17BT71	Fermentation Technology	2.31	2.31	2.2	2.2	0	2.36	2.27	0	0	0	0	2.33	2.33	0	2.31
17BT72	Genomics and Proteomics	1.95	1.72	0	2.17	0	2.17	0	1.5	0	2.17	2.17	1.5	1.95	2.17	1.5
17BT73	Plant BT	2.21	0	0	2.2	0	2.2	2.2	2.2	0	2.2	0	0	2.48	0	2.23
17BT744	Food BT	2.67	0	2.5	0	0	2.65	0	0	0	0	0	0	2.67	0	2.5
17BT752	Forensic Sciences	1.78	1.27	0	0	1.87	1.87	0	2.73	0	0	0	1.27	2	0	1.57
17BTL76	Fermentation Technology Lab	2.36	2.96	2.93	0	0	0	0	3	3	0	0	3	1.78	0	2.43
17BTL77	Plant BT lab	2.28	2.42	0	2.23	2.26	0	2.7	2.3	2.39	2.7	0	2.3	2.42	0	2.37
17BTP78	Project Phase -1	0	2.94	2.78	2.96	2.95	2.13	3	2.4	2.55	2.45	2.68	2.18	2.58	2.5	2.95
17BT81	Clinical and Pharmaceutical Biotechnology	1.04	1.25	1.23	0	0	1.22	0	1.2	0	0	0	0	1.11	0	1.2
17BT82	Regulatory affairs in BT industry	0	2.57	0	2.43	0	2.3	2.3	2.5	0	0	2.3	2.57	2.42	0	2.43
17BT833	Environmental BT	2.71	2.33	0	2.33	0	2.65	2.72	2.49	0	2.93	0	2.33	2.84	0	2.8
17BT84	Internship/Professional Practice	2.63	2.7	0	2.7	3	2.7	0	0	2.88	2.75	2.7	2.58	2.65	2.7	2.83
17BTP85	Project Work Phase 2	1.39	1.34	1.41	1.4	1.44	1.42	1.49	1.44	1.44	1.47	1.41	1.49	1.42	1.4	1.43
17BTS86	Seminar	2.15	2.18		2.2		2.18	2	2.3	2.3	2.3		2.26	2.1	2.2	2.1
<b>Total sum of POs</b>		<b>108.01</b>	<b>104.39</b>	<b>52.42</b>	<b>74.5</b>	<b>42.42</b>	<b>68.17</b>	<b>45.67</b>	<b>46.1</b>	<b>30.37</b>	<b>47.26</b>	<b>15.61</b>	<b>84.47</b>	<b>95.64</b>	<b>31.3</b>	<b>76.82</b>
<b>No of subjects mapped</b>		<b>57</b>	<b>53</b>	<b>27</b>	<b>36</b>	<b>21</b>	<b>34</b>	<b>20</b>	<b>21</b>	<b>13</b>	<b>20</b>	<b>7</b>	<b>42</b>	<b>50</b>	<b>15</b>	<b>40</b>
<b>Attainment of POs</b>		<b>1.89</b>	<b>1.97</b>	<b>1.94</b>	<b>2.07</b>	<b>2.02</b>	<b>2.01</b>	<b>2.28</b>	<b>2.2</b>	<b>2.34</b>	<b>2.36</b>	<b>2.23</b>	<b>2.01</b>	<b>1.91</b>	<b>2.08</b>	<b>1.92</b>
<b>% ATNM</b>		<b>63.2</b>	<b>65.7</b>	<b>64.7</b>	<b>69</b>	<b>67.3</b>	<b>66.8</b>	<b>76.1</b>	<b>73.2</b>	<b>77.9</b>	<b>78.8</b>	<b>74.3</b>	<b>67</b>	<b>63.8</b>	<b>69.5</b>	<b>64</b>

*Signature*

2017-21		INDIRECT ATTAINMENT THROUGH COURSE END SURVEY														
Subject code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
17MAT31	Mathematics-III	2.18	2.28	0	2.1	0	0	0	0	0	0	0	2.1	2.2	2.4	2.1
17BT32	Unit Operations	1.49	1.59	0	1.16	0	0	0	0	0	0	0	2.1	2.2	2.4	2.1
17BT33	Biochemistry	2.14	2.5	0	2.5	0	0	0	0	0	0	0	2.1	1.1	0	1.42
17BT34	Microbiology	1.95	0	0	0	0	1.95	0	1.8	0	0	0	2.5	2.27	0	0
17BT35	Cell Biology and Genetics	0.67	0.7	0	0.73	0	0	0	0	0	0	0	2.1	1.95	0	0
17BT36	Basics of Computer Applications	2.52	2.5	2.53	2.5	2.52	0	0	0	0	0	0	0	0.6	0	0
17BTL37	Unit Operations Lab	1	0.82	1.9	0	0	0	0.1	0	0	0	0	0	1.3	0	1.9
17BTL38	Microbiology Lab	1.9	1.6	0	1	0	0	0	0	1	2.8	0	0	1.9	0	1
17CPH39	Constitution of India						2.87		2.85				2.87			
17BT41	Biostatistics and Biomodeling	1.87	1.87	1.3	2.2	1.87	0	0	0	0	0	0	2.1	1.6	1.8	2.15
17BT42	Biochemical Thermodynamics	0.4	0.43	0	0.35	0	0.3	0	0	0	0	0	1.1	0.55	0	0.48
17BT43	Molecular Biology	1.2	0.3	0	0	0	1.8	0	0	0	0	0	1.5	1.2	0	0
17BT44	Bioprocess Principles and Calculations	2.03	1.98	0	2	0	2.03	1.8	0	0	0	0	2.3	0	0	2.03
17BT45	Structural Biology	0.69	0	0.95	0.8	0.8	0.8	0	0	0	0	0	0	0.69	0	0.85
17BT46	Clinical Biochemistry	1.75	1.82	0	1.8	0	0	0	0	0	0	0	1.9	1.68	0	1.9
17BTL47	Cell and Molecular Biology Lab	0.56	0	0.63	0.63	0.54	0.63	0	0	0	0	0	0	0.5	0	0.5
17BTL48	Clinical Biochemistry Lab	1.72	1.8	0	1.75	1.8	0	1.8	1.8	1.6	1.6	0	1.8	1.7	0	1.7
17BT51	Bio-Kinetics and Bio-reaction Engineering	1.93	1.84	1.7	1.7	0	0	0	0	0	0	0	2.4	1.7	0	1.9
17BT52	Genetic Engineering and Applications	1.19	0	0	0	0	1.32	0	0	0	0	0	1.8	1.33	0	1.9
17BT53	Immunotechnology	1.8	1.85	1.5	0	0	1.85	2.3	0	0	0	0	1.5	1.82	0	2.2
17BT54	Bioinformatics	2.3	2.3	2.3	0	2.3	0	0	0	0	2.3	0	2.3	2.3	2.3	0
17BT553	Animal BT	2.29	2.08	0	2	2.7	1.98	0	2.7	2	2	0	2	2.33	0	2

2017-21

## TOTAL ATTAINMENT

Attainment through		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
		(KB) Engineer knowle dge	(PA) Probl em analy sis:	(Des.) Desig n	(Inv.) Invest igatio n	(Tool s) Use of engin eerin g tools:	(Imp acts) Impa ct of engin eerin g on socie ty	(Enir onme nt) Envir onme nt and sustai nabili ty	(Ethi cs) Ethic s and equit y:	(Team ) Indivi dual and team work	(Com m.) Comm unicati on skills	(Econ .) Econo mics and proje ct mana geme nt	(LL) Life- long learni ng:	Life Scienc e	<i>In silico</i>	Biopro cess
Direct attainment (A)	Course (100 %)	1.89	1.97	1.94	2.07	2.02	2.01	2.28	2.20	2.34	2.36	2.23	2.01	1.91	2.08	1.92
Indirect attainment (B)	Exit Survey (25 %)	2.41	2.50	2.55	2.45	2.50	2.59	2.68	2.64	2.77	2.64	2.50	2.68	2.50	2.55	2.68
	CES (25%)	1.68	1.72	1.58	1.67	1.94	1.67	1.84	2.07	1.80	2.07	2.00	2.05	1.68	1.90	1.68
	Employer survey (25%)	2.67	2.44	2.44	2.44	2.78	2.67	2.44	2.78	2.44	2.89	2.56	2.56			
	Alumni survey (25%)	2.93	2.53	2.33	2.33	2.27	2.47	2.67	2.13	2.47	2.73	2.47	2.60	2.73	1.93	2.33
	Total Indirect ATNM (100 %)	2.42	2.30	2.23	2.23	2.37	2.35	2.41	2.40	2.37	2.58	2.38	2.47	1.73	1.59	1.67
Final ATNM (80% A +20% B)		2.00	2.04	2.00	2.10	2.09	2.08	2.31	2.24	2.35	2.40	2.26	2.10	1.87	1.98	1.87
Percentage final ATN		66.5	67.9	66.6	70.0	69.7	69.3	76.9	74.7	78.2	80.1	75.3	70.1	62.5	66.1	62.4



Head of The Department  
Department of Biotechnology  
Acharya Institute Of Technology  
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**Department of Computer Science and Engineering**  
**Acharya Institute of Technology**

Affiliated to VTU, Recognized by GOK and Approved by AICTE, New Delhi (Accredited by NAAC and NBA)  
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**PO Attainment for 2020 - 21 Passed Out Batch**

Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
17MAT11	Calculus and Linear Algebra	1.76	1.76										
17PHY12	Engineering Physics	2.13	1.78										2.2
17ELE13	Basic Electrical Engineering	2.3	2.3	2.11	2.3		2.1		2.2	2.23	2.26		2.07
17CIV14	Elements of Civil Engineering	2.2	2							2.39	2.37		2.5
17EDGL15	Engineering Graphics	2.12	2.12	2.27	2.2		2.3				2.41		2
17PHYL16	Engineering Physics Lab	2.7	2.62	2.9									
17ELE17	Basic Electrical Engineering Lab	2.67	2.75	2.61	2.8		2.6		2.26	2.25	2.59		2.8
17MAT21	Advanced Calculus and Numerical Methods	2.16	2.4										
17CHE22	Engineering Chemistry	2.34	2.3	2.3			2.3	2.5					2.5
17CPS23	Computer Concepts and Programming	2.05	2.12	1.74									
17ELN24	Basic Electronics	2	1.9	2.3									
17ME25	Elements of Mechanical Engineering	2.4	2.78					2.9					2.6
17CHEL26	Engineering Chemistry Lab	2.41	2				2	1.77	1.9		2.2		2.2
17CPL27	Computer Programming Lab	2.12	2.2	1.34									
17MAT31	Engineering Mathematics - III	1.5	1.78										
17CS32	Analog and Digital Electronics	1.6	1.8	2.4	2.03								
17CS33	Data Structures and Applications	2	1.3	1.64									
17CS34	Computer Organization	1.61	1.22	1.34		1.55	1.53		1.23				
17CS35	Unix and Shell Programming	2.3	2.5	2.1									
17CS36	Discrete Mathematical Structures	1.7	2.1										



## Department of Computer Science and Engineering Acharya Institute of Technology

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	Operating System Laboratory												
17CSL68	Computer Graphics Laboratory with mini project	2.7	2.55	2.4	2.56	2.8				2.74	2.8	2.6	2.7
17CS71	Web Technology and its applications	2.21	2.3	2.98	2.3	2.7	2.2						2.2
17CS72	Advanced Computer Architectures	2.1	2.2	2.1									
17CS73	Machine Learning	1.4	1.65	1	1.29	1.3					1.5		1.4
17CSL76	Machine Learning Laboratory	2.34	2.75		2.65	2.7					2.2		2.25
17CSL77	Web Technology Laboratory with mini project	2.21	2.22	2.4	2.3	2.8	2.2						2.3
17CSP78	Project Work Phase-I + Project work Seminar	2.92	2.8	2.5	2.7	2.7	3		2.6	2.5	2.8	2.8	2.95
17CS81	Internet of Things and Applications	2	2.1	2.7	1.5	1.6			1.8	2	2		
17CS82	Big Data Analytics	2.12	2.26	2.52	2.5	2.2	2.4			2	2.3	2.3	2.8
17CS84	Internship/ Professional Practice					2.4	2.3		2.7	2.8	1.7	2.7	2.3
17CSP85	Project Work-II	2.6	2.7	2.6	2.3	2.56	2.5		2.9	2.53	1.1	2.6	2.8
17CSS86	Seminar					2.7	2.9		2.24	2.6	1.3	2.9	2.5
<b>Total PO Attainment</b>		<b>107</b>	<b>109</b>	<b>86.8</b>	<b>46.3</b>	<b>46.6</b>	<b>36.3</b>	<b>9.02</b>	<b>24.8</b>	<b>30.8</b>	<b>42.68</b>	<b>21.67</b>	<b>53.27</b>
<b>Average PO Attainment in Scale of 3</b>		<b>2.02</b>	<b>2.06</b>	<b>1.64</b>	<b>0.88</b>	<b>0.88</b>	<b>0.69</b>	<b>0.18</b>	<b>0.47</b>	<b>0.59</b>	<b>0.81</b>	<b>0.41</b>	<b>1.01</b>
<b>Direct Attainment - 80 %</b>		<b>1.62</b>	<b>1.65</b>	<b>1.32</b>	<b>0.71</b>	<b>0.71</b>	<b>0.56</b>	<b>0.15</b>	<b>0.38</b>	<b>0.48</b>	<b>0.65</b>	<b>0.33</b>	<b>0.81</b>
<b>Average Direct PO Attainment in %</b>		<b>54</b>	<b>55</b>	<b>44</b>	<b>23.7</b>	<b>23.7</b>	<b>18.7</b>	<b>5</b>	<b>12.7</b>	<b>16</b>	<b>21.67</b>	<b>11</b>	<b>27</b>
<b>Indirect Attainment in Scale of 3</b>		<b>2.12</b>	<b>2.23</b>	<b>2.11</b>	<b>2.06</b>	<b>2.09</b>	<b>2.13</b>	<b>2.36</b>	<b>2.14</b>	<b>2.27</b>	<b>2.23</b>	<b>2.21</b>	<b>2.175</b>
<b>Indirect Attainment - 20 %</b>		<b>0.43</b>	<b>0.45</b>	<b>0.43</b>	<b>0.42</b>	<b>0.42</b>	<b>0.43</b>	<b>0.48</b>	<b>0.43</b>	<b>0.46</b>	<b>0.45</b>	<b>0.45</b>	<b>0.44</b>
<b>Average Indirect PO Attainment in %</b>		<b>14.3</b>	<b>15</b>	<b>14.3</b>	<b>14</b>	<b>14</b>	<b>14.3</b>	<b>16</b>	<b>14.3</b>	<b>15.3</b>	<b>15</b>	<b>15</b>	<b>14.67</b>
<b>Total Attainment</b>		<b>2.05</b>	<b>2.1</b>	<b>1.75</b>	<b>1.13</b>	<b>1.13</b>	<b>0.99</b>	<b>0.63</b>	<b>0.81</b>	<b>0.94</b>	<b>1.1</b>	<b>0.78</b>	<b>1.25</b>
<b>Total Attainment in %</b>		<b>68.3</b>	<b>70</b>	<b>58.3</b>	<b>37.7</b>	<b>37.7</b>	<b>33</b>	<b>21</b>	<b>27</b>	<b>31.3</b>	<b>36.67</b>	<b>26</b>	<b>41.67</b>



## Department of Computer Science and Engineering Acharya Institute of Technology

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[www.acharya.ac.in](http://www.acharya.ac.in), Email: [hod-cse@acharya.ac.in](mailto:hod-cse@acharya.ac.in)

17MAT41	Engineering Mathematics - IV			
17CS42	Object Oriented Concepts	1.47	2.6	1.9
17CS43	Design and Analysis of Algorithms	2.2	1.54	
17CS44	Microprocessors and Microcontrollers	1.29	1.73	
17CS45	Software Engineering	2.48	2.2	1.69
17CS46	Data Communication	1.8		
17CSL47	Design and Analysis of Algorithm Laboratory	2.6	2.68	2.68
17CSL48	Microprocessors Laboratory	1.57		
17CS51	Management and Entrepreneurship for IT Industry	1.43	1.3	2.1
17CS52	Computer Networks	2.48	2.48	
17CS53	Database Management System	2.1	1.7	1.2
17CS54	Automata theory and Computability	2.3	2.14	1.5
17CSL57	Computer Network Laboratory	1.7	1.85	
17CSL58	DBMS Laboratory with mini project	1.29	1.55	2.1
17CS61	Cryptography, Network Security and Cyber Law	2.1	1.98	
17CS62	Computer Graphics and Visualization	3	1.69	1.4
17CS63	System Software and Compiler Design	2.5	1.68	
17CS64	Operating Systems	2.3	1.91	1.9
17CSL67	System Software and Operating System Laboratory	1.92	2.9	3
17CSL68	Computer Graphics Laboratory with mini project	1.9	2.99	2.86
17CS71	Web Technology and its applications	1.79		1.9
17CS72	Advanced Computer Architectures	2.1	2.05	



**Department of Civil Engineering  
Acharya Institute of Technology**

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www.acharya.ac.in, Email: hod-civil@acharya.ac.in

Summary of PO and PSOs Attainment for the Batch: 2017																	
Graduation Period: 2017-to-2021		Scheme			2017		No.of Courses				47		PSOs				
CID	Title of Course	Programme Outcome(PO)s												1	2	3	4
		1	2	3	4	5	6	7	8	9	10	11	12				
C201	Engineering Mathematics –III	1.9	1.6														
C202	Strength of Materials	1.5	1.7		1									2	1.5	1	1
C203	Fluid Mechanics	2	1.8	1.3		1		1.4		1				1.8	1	2	1.8
C204	Basic Surveying	2	1.9	1.2		0.4		1.3					1.3	2.1	2		
C205	Engineering Geology	2.3	1.5	1.2	1.3	2	1.9	1					1	1.4	1.1		
C206	Building Materials and Construction	2						1.5					1	1.3	1		
C207	Building Materials Testing Laboratory	2.5	2	1.8	1.5	2.1	2.15	2.05	2	1.9	2.1	2	1.8	2.2	2.1		
C208	Basic Surveying Practice	2.8	2.5	2.24	2.23	2	2.15	2.1	2	2	1.9	1.9	2	1.9	2.1		
C209	Additional Mathematics –I	2	1.5														
C211	Engineering Mathematics –IV	2.5	1.8											1.7	1.5	1.3	1.8
C212	Analysis of Determinate Structures	2	1.8											1.5	2	2.15	1.9
C213	Applied Hydraulics	2.2	1.3	1.1		1		1		2				1.9	0.8	1.4	1.5
C214	Concrete Technology	2.1	2.3	1.5	1.7	2.25	1.1	2.1					2.2	2.3	2.8		
C215	Basic Geotechnical Engineering	2.15	2.02	1.9										1.77	0.74	0.95	1.85
C216	Advanced Surveying	1.7	1.9	2.22	1.95				2				1.9	1.75	1		
C217	Fluid Mechanics and Hydraulic Machines Laboratory	2.77	2.1					1.5					1	1.67	2		
C218	Engineering Geology Laboratory	2.56					2.6	2.1			1.9		1		2		
C219	Additional Mathematics –II	2.0	1.89														
C301	Design of RC Structural Elements	1.6	2	1.65	1.25	0.9							1	1.1	0.89	1.76	1.9
C302	Analysis of Indeterminate Structures	1.95	1.7												1.7	1.45	1.95
C303	Applied Geotechnical Engineering	2	2.1	1.95	2	1.75								1.95		1.35	1.33
C304	Computer Aided Building Planning and Drawing	2.32	2.54			2.33				2			2.65	2.11	2.34		
C305	Air pollution and Control	2.1	2.6				2	1.7					2.1	2.6			
C306	Geotechnical Engineering Laboratory	2.54	2.2	1.9	2.4	2.14	2.33	2.35	2.23	1.85	1.95		2.33		2.35		
C307	Concrete and Highway Materials Laboratory	2.75		2.8			2.3	2.45	2.36						2.1		
C311	Construction Management and Entrepreneurship	2	1.8	1.9										2.1	2		
C312	Design of Steel Structural Elements	1.5	1.7	1.56										2		1.76	1.4



Department of Electronics and Communication Engineering  
 Acharya Institute of Technology  
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SUBJECTS	CO-PO ATTAINMENT 2017-2021 BATCH												No. of Courses=51		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
17ELN15	2.4	2.5													
17MAT31	1.9	1.9													
17EC32	2.7														1.8
17EC33	2.2	2.1	2.2	2.2						2.7					2.4
17EC34	2.5	2.5			2.5				2.5		2.2	2.2			2.4
17EC35	2.5	2.5							2.5	2.5			1.1		
17EC36	2.2	2.2	2.1	2.1								2.2	2.7	2.7	2.7
17ECL37	2.6	2.7	2.6	2.7	2.7	2.7		2.7	2.6	2.7		2.6	2.5		
17ECL38	2.5	2.5	2.5	2.5	2.5	2.6		2.6	2.5	2.6		2.6		2.1	2.2
17MAT41	2	2												2.1	2.2
17EC42	2.2	2.2				2.2								2.7	
17EC43	1.9	1.9	1.9		1.8					2.3		2.2	2.5		
17EC44	2.4	2.4				2.4				2.4		2.4		2.2	
17EC45	2.4	2.5				2.5				2.4		2.4			1.8
17EC46	1.5	1.4			1.2										2.4
17ECL47	2.1	2.1													2.4
17ECL48	2.3	2.3	2.2										1.1		
17ES51	2.6	2.6	2.6		2.6								2.6		
17EC52	2.3	2.3										3.3	2.7	2.7	2.7
17EC53	2.7	*													
17EC54	2	2											1.8	2	
17EC553	2.8	2.8	2.7										2.1	2.4	
17EC562	2.8	2.8	2.8										2.6		
17ECL57	2.1	2.1												1.7	1.8
17ECL58	2.6	2.7										2.6			1.4
17EC61	2		2											2.8	
17EC62	1.6	2.1										1.8	2.8	2.8	
17EC63	2.4	2.3												2.1	2.1
17EC64	2.3	2.3	2.3											2.5	
17EC651	2.6		2.5	2.5				2.5						2.5	
17EC663	2.7	2.7	2.6												2.8
17CS664							2.4	2.4	2.3	2.3	2.4	2.4	2.7		



**ACHARYA INSTITUTE OF TECHNOLOGY**

Bengaluru – 560 107

**Department of Electrical and Electronics Engineering**

**Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2017**

Graduation Period: 2017-to-2021		Scheme		2017										No.of Courses : 61		
CID	Title of Course	Programme Outcome(PO)s												PSOs		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101	Engineering Mathematics - I	2.6	2.0													
C102	Engineering Chemistry	2.7	1.9				2.8	0.8					0.3			
C103	Basic Electronics	1.9	0.6													
C104	Programming in C and Data Structures	1.6	2.9	2.2												
C105	Computer Aided Engineering Drawing	2.5	2.4	1.2		0.8	2.2	1.4	0.8		0.4	1.7	1.4			
C106	Workshop Practice	2.1	0.8				1.7	0.2					2.4			
C107	Engineering Chemistry Laboratory	1.9	2.1				0.1	1.9					2.1			
C108	Computer Programming Laboratory	2.4	0.3	1.2												
C111	Engineering Mathematics - II	2.4	2.2													
C112	Engineering Physics		2.6		0.6	1.7		2.8	1.2		2.5	2.5	0.2			
C113	Elements of Mechanical Engineering	1.6		1.6												
C114	Elements of Civil Engineering and Mechanics	1.6	2.4	1.6			2.9		2.1			1.1	0.6			
C115	Basic Electrical Engineering	2.2	0.3	2.5	2.6		1.6		0.3	2.4	1.7		0.8			
C116	Engineering Physics Laboratory	2.1	0.5	0.3												
C117	Environmental Studies	2.3	2.4	1.8	2.5	0.1	2.2				3.0	0.4	0.6			
C201	Engineering Mathematics-III (Core)	1.8	1.2													
C202	Electric Circuit Analysis (Core)	1.7		0.1	1.9	2.7			0.2		0.3		1.8			

C312	Power System Analysis – 1(Core)		0.6	0.3	1.5		0.5		2.0		1.4		1.9	1.1	1.0	1.0
C313	Digital Signal Processing(Core)	2.1	2.1	2.8		1.5	2.5				1.7	2.6			2.5	
C314	Electrical Machine Design(Core)	1.7	0.2		2.5			2.1	2.1		1.2	1.1	2.8	1.2		
C315	Professional Elective – II	2.4	2.4	2.9		2.6					2.6	2.2	1.1	2.3	2.2	2.2
C316	Open Elective - II	2.8	2.5	2.4			2.9	2.5			1.9	2.7	1.3	2.2		
C317	Control System Laboratory	1.2	1.6	2.6	0.0				0.1	1.5	1.0	1.0	2.8		1.0	
C318	Digital Signal Processing Laboratory	2.1	0.5		1.3	2.1	2.2	2.8	0.4	3.0	2.2		1.3	2.0		
C401	Power System Analysis – 2(Core)	3.0	1.0	2.0	0.7	2.8					0.6	0.9	0.7	1.0	2.0	1.2
C402	Power System Protection(Core)	2.5	2.6	3.0				1.3	0.9		2.6	2.0	0.8	2.3		
C403	High Voltage Engineering(Core)	1.8	1.7	0.3		2.4			1.4	1.8		3.0	3.0	2.5	1.7	
C404	Professional Elective – III	1.7	0.0	1.7		2.3	1.5		2.0	0.9			2.1	1.3		
C405	Professional Elective – IV	1.5	1.3		1.4	1.8	2.7		1.7	1.1	0.1	2.8	0.2			
C406	Power system Simulation Laboratory	2.5	2.8	1.8		1.4				1.9	1.2	0.7	1.8		1.3	1.1
C407	Rely and High Voltage Laboratory	1.8	1.9			2.2		2.7	0.9		2.0	2.1	3.0			
C408	Project Work Phase-I + Project work Seminar	2.9	0.6	2.3	2.3	0.9	1.6	0.2	0.3	0.4		2.1	0.1	2.4	2.6	
C411	Power System Operation and Control (Core)	3.0	0.9	1.5	2.9	2.8	2.4		2.6	0.9	2.4	2.0	1.9	2.2	2.2	2.2
C412	Industrial Drives and Applications(Core)	2.0	1.6	0.3	1.3	2.6		2.8	0.4	0.4		1.8	1.7		1.4	1.2
C413	Professional Elective-5	1.8		2.2	0.8		2.8	2.2	0.9	2.4	1.5	1.2	0.6	2.6		
C414	Internship/ Professional Practice (Core)	2.8	1.6	0.7	2.3	0.2	1.8	1.1		0.4	0.2	0.5	1.1	0.6		
C415	Project Work-II( Core)	3.0	0.9	1.5	2.9	2.8	2.4		2.6	0.9	2.4	2.0	1.9	2.2	2.2	2.2
C416	Seminar (Core)	2.9	1.3	0.2	1.4	1.8		1.2	1.7	1.1	0.1	2.8	0.2			
Total PO Attainment		114.89	88.92	61.02	45.50	56.91	66.98	38.17	54.05	33.76	58.41	50.47	73.55	33.20	30.77	20.04
Average PO Attainment in Scale of 3		1.88	1.46	1.00	0.75	0.93	1.10	0.63	0.89	0.55	0.96	0.83	1.21	0.54	0.50	0.33



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**Bengaluru – 560 107**  
**Department of Information Science & Engineering**

**Summary of Average Mapping of COs to POs, for the Batch: 2017**

Graduation Period: 2017-to-2021		Scheme		2017										No.of Courses : 65	
CID	Title of Course	Programme Outcome(PO)s												PSOs	
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C101	Calculus And Linear Algebra	3	2										2		
C102	Engineering Chemistry	2	1				1	1					1		
C103	C Programming For Problem Solving	1	2			1						1	1		1
C104	Basic Electronics	3	2											3	
C101	Elements Of Mechanical Engineering	3	1					1					1		2
C106	Engineering Chemistry Lab	2	1				1	1					1		
C117	C Programming Laboratory	2	2			1						1	1	1	1
C108	Technical English-I						1					2	1	3	
C111	Advanced Calculus And Numerical Methods	3	2												
C112	Engineering Physics	2	1										1		
C113	Basic Electrical Engineering	2	2				1						1	3	
C104	Elements Of Civil Engineering & Mechanics	3	2										1		3
C115	Engineering Graphics	1	2			2						1	2		
C112	Engineering Physics Lab	1	1	1											
C117	Basic Electrical Engineering Lab	1	1				1					2	1	1	
C118	Technical English-2						1					2	1	3	
C201	17MAT31 Engineering Mathematics - III	3	2	2									2		
C202	17CS32 Analog and Digital Electronics	1.3	1.3	1.3	1.3	1.4								1.23	

C302	17CS52 Computer Networks	3	2	2		2							2	1	
C303	17CS53 Database Management System	1.4	1.4	1.4	1.3	1.3							1.3	1.4	1.4
C304	17CS54 Automata theory and Computability	2	2											1	2
C305	Professional Elective-1 Advanced JAVA and J2EE (17CS553)	1	1	1									1		
C306	17CS56x Open Elective-1 17CS564 Dot Net framework for application development;	2	2	1		2							1	1	1
C307	17CSL57 Computer Network Laboratory CS/IS 01-Hour Instruction	2	2	1		2							2		1
C308	17CSL58 DBMS Laboratory with mini project	2.6	2.6	2.6	2.6	2.6	2.6		2.6	2.6	2.6	2.6	2.6	1.6	1.6
C309	17CS61 Cryptography, Network Security and Cyber Law	3.0	2.0	1.0									2.0		2.0
C310	17IS62 File Structures	2	2	1									1		
C311	17IS63 Software Testing	2	2			1							1		
C312	17CS64 Operating Systems	3	2	2		1							2	1	1
C313	17CS/IS65x Professional Elective-2 17CS653 Operations research	3	3	2									1		1
C314	Open Elective-2 17CS664 Python Application Programming	1.7	1.7	1.7		1.7			1.7						1.7
C315	17ISL67 Software Testing Laboratory	2	2	2		2							1		
C316	17ISL68 File Structures Laboratory with mini project	2	2	1		2				2	2	2	2		
C401	17CS71 Web Technology and its applications	1	1	0.9		0.9							1		0.65
C402	17IS72 Software Architecture and Design Patterns	3	2	2									2	1	1
C403	17CS73 Machine Learning	2.3	2.3	2.3	2.3								2.3	2.3	2.3



## Department of Mechanical Engineering Acharya Institute of Technology

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Summary of PO and PSOs Attainment for the Batch: 2017																		
Graduation Period: 2017-2021		Scheme			2017			No.of Courses					46		PSOs			
CID	Title of Course	Programme Outcome(POs)																
		1	2	3	4	5	6	7	8	9	10	11	12					1
C201	ENGINEERING MATHEMATICS-III	2.0	2.0														2	
C202	MATERIAL SCIENCE	2.1											2.1			2.1		
C203	BASIC THERMODYNAMICS	1.0	1.0					0.8				0.9	1.0	0.9	1			
C204	MECHANICS OF MATERIALS	1.1	1.0										1.1	1.1	1			
C205	METAL CASTING AND WELDING	1.9	1.9	1.9								1.9	1.9			1.9		
C206	COMPUTER AIDED MACHINE DRAWING	2.0				2.0						2.0	1.9	2		1.8		
C207	MATERIAL TESTING LABORATORY	2.5	2.5	2.5	2.5		2.5		2.4	2.5	2.5	2.5	2.5	2.5	2.5		2.5	
C208	FOUNDRY AND FORGING LABORATORY	2.5			2.5							2.6		2.5	2.5		2.6	
C211	ENGINEERING MATHEMATICS IV	2.2	2.2															
C212	KINEMATICS OF MACHINES	1.8	1.8	1.8								1.8	1.8	1.8	1.8	1.7		
C213	APPLIED THERMODYNAMICS	1.5	1.5					1.9				1.6	1.6	1.6	1.4			
C214	FLUID MECHANICS	1.4	1.8										1.3		1.5			
C215	MACHINE TOOL AND OPERATION	1.6	1.6	1.5	1.8	1.5					1.6	1.6	1.7	1.6	1.6	1.3	1.6	
C216	MECHANICAL MEASUREMENTS AND METROLOGY	1.9											1.9		1.9			
C217	MECHANICAL MEASUREMENTS AND METROLOGY LAB	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5		2.5			2.5	2.5	
C218	MACHINE SHOP LAB	2.5			2.7						2.7		2.7			2.6		
C301	MANAGEMENT AND ENGINEERING ECONOMICS	1.0	1.0										1.0				1	
C302	DYNAMICS OF MACHINERY	2.0	1.8										1.8	1.9	1.8			
C303	TURBOMACHINES	2.1	1.9										1.6	2	1.9			
C304	DESIGN OF MACHINE ELEMENTS- I	0.8	0.9	0.9		0.9						0.8	0.8		0.8	0.8		
C305	NON TRADITIONAL MACHINING	2.4	2.4										2.4			2.4		
C306	AUTOMATION AND ROBOTICS	1.6		1.6									1.5		1.5			
C307	FLUID MECHANICS & MACHINERY LABORATORY	2.2	2.2	2.3			2.3		2.3	2.3			2.2			2.2		
C308	ENERGY LABORATORY	2.7	2.7	2.7	2.7		2.7		2.5	2.7	2.7		2.7	2.7	2.6			
C311	FINITE ELEMENT ANALYSIS	2.6	2.6	2.6									2.6		2.6			



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**Bengaluru – 560 107**  
**Department of Mechatronics Engineering**

Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2021

Graduation Period: 2017-to-2021		Scheme		2017								No.of Courses : 62					
CID	Title of Course	Programme Outcome(POs)										PSOs					
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	
C101	ENGINEERING MATHS-I	1.80	1.80														
C102	ENGINEERING CHEMISTRY	1.90	1.70				1.70	1.70					1.90				
C103	PROGRAMMING IN C & DATA STRUCTURES	1.56	1.50	1.50											1.80		
C104	COMPUTER AIDED ENGINEERING DRAWING	1.68	1.56	1.99		1.46											
C105	BASIC ELECTRONICS	1.63	1.50												1.60		
C106	COMPUTER PROGRAMMING LAB	2.67	2.68	2.70											1.20		
C107	ENGG. CHEMISTRY LAB	2.66	2.70				2.70	2.70					2.60				
C108	ENVIRONMENTAL STUDIES	0.82						2.83					1.24				
C111	ENGINEERING MATHS-II	1.70	1.70														
C112	ENGINEERING PHYSICS	2.40	2.40										2.40	1.40	1.40	1.10	
C113	ELEMENTS OF CIVIL ENGG. & MECHANICS	1.69	1.67							1.60	1.60		1.60				
C114	ELEMENTS OF MECHANICAL ENGG.	1.29	1.20					1.30					1.27	2.30			
C115	BASIC ELECTRICAL ENGG.	2.04	1.99	2.06	2.07	2.10	2.10	2.10	2.10	2.11	2.08	2.10	2.09		1.20		
C116	WORKSHOP PRACTICE	1.52	1.33	1.25											1.85		
C117	ENGG. PHYSICS LAB	2.00	2.20	2.50											1.30	1.40	
C118	LANGUAGE- ENGLISH	0.84							2.64					1.46			
C201	ENGINEERING MATHEMATICS – III	1.37	1.37														
C202	MATERIAL SCIENCE& TECHNOLOGY	2.40	2.40	2.40									2.40	2.40		2.40	
C203	MECHANICS OF MATERIALS	1.90	1.90	1.90	1.90									1.90		1.90	
C204	CONTROL SYSTEMS	2.60	2.60	2.60	2.60	2.60								2.60	2.60		
C205	ANALOG AND DIGITAL ELECTRONICS	2.10	2.10	2.00											3.00	2.00	
C206	COMPUTER ORGANIZATION	2.30	2.30												2.30		
C207	MACHINE SHOP AND MATERIAL TESTING LAB	2.90	2.90	2.90	2.90									2.90		2.90	
C208	ANALOG AND DIGITAL ELECTRONICS LAB	2.50	2.50	2.50	2.50			2.50		2.50	2.50		2.50		2.50	2.50	
C211	ENGINEERING MATHEMATICS – IV	1.76	1.76														
C212	FLUID MECHANICS AND MACHINES	2.05	2.05	1.85											2.00	2.00	
C213	MICRO CONTROLLER	2.10	1.80	1.80	2.00	2.50							2.60	2.60	2.50		
C214	MANUFACTURING TECHNOLOGY	2.50	2.50	2.50	2.50	2.50	2.50	2.50					2.50	2.50	2.50	2.50	
C215	THEORY OF MACHINES	1.59	1.53	1.44	1.08										1.71	1.62	
C216	INSTRUMENTATION AND	2.40	2.40	2.40											2.40	2.40	
C217	FLUID MECHANICS, MACHINES AND PNEUMATIC LAB	2.75	2.75	2.74											2.86	2.35 2.81	
C218	MICRO CONTROLLER LAB	2.80	2.80	2.80	2.80			2.80		2.80	2.80		2.80		2.80	2.80	
C301	DESIGN OF MACHINE ELEMENTS	2.50	2.47	2.45	2.45	2.45					1.25			2.49		2.50	
C302	VIRTUAL INSTRUMENTATION	2.45	2.45	2.45	2.45	2.45								2.50	2.50	2.50	
C303	HYDRAULICS AND PNEUMATICS	2.57	2.65	2.62	2.62		2.65							2.57	2.60	2.65	
C304	MICRO AND SMART SYSTEMS TECHNOLOGY	2.40		2.40										2.40	2.40	2.40	
C305	WIRELESS NETWORKS & COMMUNICATION	2.70	2.60	2.60	2.60	2.60									2.70	2.60	
C306	AUTOMATION IN MANUFACTURING	2.45	2.47	2.47											2.45	2.45 2.47	
C307	VIRTUAL INSTRUMENTATION LAB	2.75	2.75	2.75	2.75	2.75									2.40	2.80	
C308	MICRO AND SMART SYSTEMS TECHNOLOGY LAB	2.37	2.28	2.23	2.25	2.35									2.41	2.37 2.30	
C311	PLC & SCADA	2.90	2.90	2.90	2.90	2.90									2.90	2.90	
C312	EMBEDDED SYSTEMS (ARM)	2.70	2.70				2.50									2.60	
C313	POWER ELECTRONICS	2.75	2.75	2.75	2.75	2.75										2.80	
C314	COMPUTER AIDED MACHINE DRAWING	2.40	2.40	2.40	2.40	2.40							2.40	2.40	2.40	2.40	
C315	SATELLITE COMMUNICATION	2.78						2.78						2.78	2.78	2.78 2.78	
C316	RAPID PROTOTYPING	2.59	2.63												2.59	2.63	
C317	PLC & SCADA LAB	2.90	2.90	2.90	2.90	2.90									2.80	2.80 2.80	
C318	POWER ELECTRONICS LAB	2.80		2.80												2.80	
C401	INDUSTRIAL ROBOTICS	2.84	2.83	2.82	2.82	2.80				2.80		2.80	2.83	2.83	2.83	2.82	
C402	THERMAL ENGINEERING	2.08	2.07	2.06	2.05										2.18	2.18	
C403	SIGNAL PROCESS	2.13	2.12	2.10												2.10 2.10	
C404	REAL TIME SYSTEMS	2.93	2.94	2.93	2.95	2.93									2.93	2.94 2.93	
C405	DIGITAL IMAGE PROCESSING	2.50	2.48	2.50												2.50 2.50	
C406	ROBOTICS LAB	2.83	2.82	2.85	2.80	2.82				2.85			2.80	2.83	2.84	2.83	
C407	SIGNAL PROCESS - LAB	2.60	2.60	2.60	2.60											2.60 2.60	
C408	PROJECT PHASE – I SEMINAR	1.80	1.80	1.80	1.20	1.80	1.20	1.20	2.40	3.00	1.20	1.20	3.00	3.00	3.00	3.00	



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Master of Business Administration

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2019**

Graduation Period: 2019-to-2021		Scheme		2018		No.of Courses		38	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C101	MANAGEMENT & ORGANIZATIONAL BEHAVIOUR(18MBA11)	1.701	1.701						
C102	MANAGERIAL ECONOMICS (18MBA12)	1.935	1.818						
C103	ACCOUNTING FOR MANAGERS (18MBA13)	1.0692	1.1736				1.44	1.08	
C104	BUSINESS STATISTICS & ANALYTICS (18MBA14)	2.1276	2.1114				2.07		2.16
C105	MARKETING MANAGEMENT (18MBA15)	1.764	1.6596					1.71	
C106	MANAGERIAL COMMUNICATION (18MBA16)	2.3904	2.2464						
C201	HUMAN RESOURCE MANAGEMENT (18MBA21)	2.385	2.385			2.385	2.34	2.34	
C202	FINANCIAL MANAGEMENT (18MBA22)								
C203	RESEARCH METHODOLOGY (18MBA23)	1.3536	1.3536						
C204	LEGAL AND BUSINESS ENVIRONMENT (18MBA24)	1.908	1.908						
C205	STRATEGIC MANAGEMENT (18MBA25)	2.3508	2.3562				2.34		
C206	ENTREPRENEURSHIP AND LEGAL ASPECTS (18MBA26)	1.1664	1.1736					1.17	
C301	CONSUMER BEHAVIOR (18MBAMM301)	1.9944	1.9944			1.9944			1.98
C302	RETAIL MANAGEMENT (18MBAMM302)	2.2068	2.2968						
C303	SERVICES MARKETING (18MBAMM303)	2.547	2.547				2.61		2.61
C304	BANKING & FINANCIAL SERVICES (18MBAFM301)								
C305	INVESTMENT MANAGEMENT (18MBAFM302)	1.6542	1.6542				1.62	1.62	1.62
C306	DIRECT TAXATION (18MBAFM303)	1.2474	1.2186				1.26		1.26
C307	ADVANCED FINANCIAL MANAGEMENT (18MBAFM304)	1.8018	1.7928	1.8018			1.8		1.8
C308	COST MANAGEMENT (18MBAFM305)	1.539	1.539	1.539			1.53	1.53	1.35
C309	PROJECT APPRAISAL, PLANNING & CONTROL (18MBAFM306)	1.971	1.971	1.9512			1.98		1.98
C310	RECRUITMENT AND SELECTION (18MBAHR301)	1.8234	1.791				1.8		1.8
C311	HR ANALYTICS (18MBAHR302)	2.3094	2.313	2.3094			2.34	2.34	



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru – 560 107  
Department of Master of Business Administration

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2019**

Graduation Period: 2019-to-2021		Scheme		2018		No.of Courses		38	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C312	COMPENSATION & REWARD SYSTEM (18MBAHR303)	2.286	2.286	2.2158	2.286		2.25	2.25	
C313	INTERNSHIP (20MBAIN307)	2.5326	2.5326				2.52	2.52	2.52
C401	SALES MANAGEMENT (18MBAMM401)	2.4012	2.4012	2.4012				2.43	2.43
C402	INTEGRATED MARKETING COMMUNICATION (18MBAMM402)	2.4156	2.4192				2.43		2.43
C403	DIGITAL & SOCIAL MEDIA MARKETING (18MBAMM403)	2.3994	2.4102	2.3994	2.3994		2.43	2.43	
C404	MERGERS, ACQUISITIONS & CORPORATE RESTRUCTURING (18MBAFM401)	2.574	2.574	2.574			2.61	2.61	
C405	RISK MANAGEMENT AND INSURANCE (18MBAFM402)	2.331	2.331	2.34			2.34		2.34
C406	INDIRECT TAXATION (18MBAFM403)	2.5074	2.5074				2.52		
C407	INTERNATIONAL FINANCIAL MANAGEMENT (18MBAFM404)	2.4696	2.4696	2.4696	2.34	2.4696	2.43	2.43	
C408	FINANCIAL DERIVATIVES (18MBAFM405)								
C409	CORPORATE VALUATION (18MBAFM406)	1.683	1.683	1.683	1.683		1.71		1.71
C410	PUBLIC RELATIONS (18MBAHR401)	1.8252	1.6524	1.6524			1.8	1.89	
C411	ORGANIZATIONAL LEADERSHIP (18MBAHR402)	2.2284	2.2284	2.2284	2.2284		2.25		2.25
C412	INTERNATIONAL HUMAN RESOURCE MANAGEMENT (18MBAHR403)	1.6434	1.6344	1.6416	1.5678		1.62		
C413	PROJECT WORK (18MBAPR407)	1.7046	1.7082	1.7046			1.71	1.71	
Total PO PSO Attainment		70.2468	69.8418	30.9114	12.5046	6.849	51.75	30.06	30.24
Average Total PO PSO Attainment (Scale : 0-3) and (%)		1.85	1.84	0.81	0.33	0.18	1.36	0.79	0.80
		61.62	61.2647	27.1153	10.9689	6.00789	45.3947	26.3684	26.5263

Head of the Department  
Department of MBA  
Acharya Institute of Technology  
Siddavaram, Bangalore-560 107



**Acharya Institute of Technology**  
**Department of MBA**  
**Attainment of PO & PSO**  
**2019-21 Batch**

Direct attainment	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
CIE+SEE+CES	1.85	1.84	0.81	0.33	0.18	1.36	0.79	0.80

Indirect attainment	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
Activities	2.02	2.02	0.87	2.01	2.30	2.38	1.47	1.73
Program exit survey	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97
Activities (70 % )	1.41	1.42	0.61	1.41	1.61	1.67	1.03	1.21
Program exit survey (30 %)	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Total indirect attainment	2.00	2.01	1.20	2.00	2.20	2.26	1.62	1.81

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>Direct attainment (80%)</b>	1.48	1.47	0.65	0.26	0.14	1.09	0.63	0.64
<b>Indirect attainment (20%)</b>	0.40	0.40	0.24	0.40	0.44	0.45	0.32	0.36
<b>Total attainment</b>	<b>1.88</b>	<b>1.87</b>	<b>0.89</b>	<b>0.66</b>	<b>0.58</b>	<b>1.54</b>	<b>0.96</b>	<b>1.00</b>
<b>Total attainment in %</b>	<b>62.65%</b>	<b>62.39%</b>	<b>29.69%</b>	<b>22.10%</b>	<b>19.48%</b>	<b>51.37%</b>	<b>31.91%</b>	<b>33.26%</b>

  
 Head of the Department  
 Department of MBA  
 Acharya Institute of Technology  
 Soldevanahalli, Bangalore-560 133



# ACHARYA INSTITUTE OF TECHNOLOGY

Affiliated to Visvesvaraya Technological University, Belagavi,  
Approved by AICTE, New Delhi, Recognized by Govt. of Karnataka and  
Accredited by NBA (AE, BT, CSE, ECE, ME, MT)

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## PO Attainment (Batch 2016-2020)



**ACHARYA INSTITUTE OF TECHNOLOGY**  
Bengaluru- 560 107  
Department of Aeronautical Engineering

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2016**

Graduation Period: 2016-to-2020		Scheme		2015		No.of Courses						62					
Total Attainment of Programme Outcomes												Programme Specific Outcomes					
CID	Title of Course	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
C101	Engineering Mathematics	1.5	1.6														
C102	Engineering Chemistry	1.4	1.5	1.2			1.5	1.4									
C103	Programming in C and Data Structures	0.8	0.7										0.8				
C104	Computer Aided Engineering Drawing	1.8	1.8	1.7		1.5				1.7	1.8		1.8				
C105	Basic Electronics	1.1	1.7														
C106	Computer Programming laboratory	2.2	2.2	2.2	2.2												
C107	Engineering Chemistry laboratory	2.1	2.1				2.1	2.1	2.1		2.1		2.1				
C111	Engineering Mathematics II	1.8	1.1														
C112	Engineering Physics	1.1	1.5										1.5				
C113	Elements of Civil Engineering and Mechanics	1.2	1.2			1	1		1		1.2	1					
C114	Elements of Mechanical Engineering	1.4	1.5					1.2					1.4				
C115	Basic Electrical Engineering	1.8	0.9										1				
C116	Workshop Practice	1.1	2.2	2.2		2.2	2.2			2.2			2.2				
C117	Engineering Physics Laboratory	2.3	2.3	2.2													
C201	Engineering Mathematics III	2.1	2.1														
C202	ELEMENTS OF AERONAUTICS	2.2	2.3	2.3	2.3								2.2	2.3	2.2		2.3
C203	Aero-Thermodynamics	2	1.9	1.8									1.9	1.8		1.9	
C204	Mechanics of Materials	1.6	1.8	1.8									1.8	1.8		1.8	
C205	Aerodynamics-I	1.9	1.9	1.9									1.9	1.9		1.9	
C206	MEASUREMENT & METROLOGY	1.3	1.3	1.3									1.3	1.3	1.3		
C207	Mechanical Measurements and Metrology Lab	2.8	2.5		2.8						2.8			2.8	2.8	2.7	
C208	Machine Shop Lab				2.9	2.9								2.9			
C209	Constitution of India						0.7	0.8					0.8				
C211	Engineering Mathematics III	2.1	2.1														
C212	Aerodynamics-I	1.7	1.6	1.7									1.9	2.1	1.9	2.1	
C213	Aircraft Propulsion	2	2.1	2.1							2.1		1.9	2.1		1.9	
C214	MECHANISMS AND MACHINE THEORY	0.9	0.9	1.1									0.9	0.9			0.9
C215	Aircraft Material Science	1.2	1.3										1.1	1.3	1.3		
C216	Turbomachines	1.3	1.3										1.2	1.3		1.4	
C217	Material Testing Lab			2.7	2.7										2.6		
C218	Computer Aided Aircraft Drawing	2.5	2.1	2.1	2.2	2.2	2					2.1	2.1	2.2	2.2		
C301	Management and Entrepreneurship	2							2	2	2	2	2		2		
C302	Introduction to Composite Materials	2.3	2.5	2.2									2.5	1.9	2.1		
C303	Heat and Mass Transfer	1.9	1.8		2								1.9			1.8	
C304	Aircraft Structures-I	1.8	1.9	1.9									1.9	2	1.9		
C305	Gas Dynamics	2	2.1										2.1	2.1			
C306	Basics of Rockets & Missiles	1	1.4	1.5	1.6	1.3								1	1.1	1.6	1.6
C307	Aerodynamics laboratory				2.6	2.6								2.6	2.6	2.6	2.6
C308	Energy Conversion and Fluid Mechanics Lab	2.5	2.8		2.6					2.5	1.7		2.2			2.3	
C311	Aerodynamics-II	1.9	2.9	1.9										1.8	1.8	1.9	
C312	Gas Turbine Technology	2.7	2.5										2.7	2.9		2.7	
C313	Aircraft Performance	2	2.7	2.1										2.6		2.1	
C314	Aircraft Structures - II	2	2	2.9										1.9		1.9	
C315	Finite Element Method	1.7	2	1.9		2.1							2.2	2.7	2.9	2.9	
C316	Unmanned Aerial Vehicle basics & its applications	2.7	1.7	2.8										2	2.8	2.3	2.7

C317	Aircraft Propulsion Lab	2.2	2.7		2.9					2.9	2.9		2.7	2			
C318	Aircraft Structures Lab				2.8	2.8								1.7	2.8		
C401	Control Engineering	2.7	2.1	2.1									2.1	2.7	2.1	2.1	2.1
C402	Computational Fluid Dynamics	2	2	2										2	2	2	
C403	Aircraft Stability and control	2	2.1	2.1	2.1									2.1	2.1	2.1	2.1
C404	Helicopter Dynamics	1.7	2.6											2.6	2.6		2.6
C405	Numerical Methods	2.7	2.3											2.3			
C405	WIND TUNNEL TECHNIQUES	2.1		2.1	2.1									2.1	2.1	2.1	
C406	Flight Simulation Lab	3	3	3	3	3								2.7			3
C407	Modelling And Analysis Lab				2.8	2.8								2	2.8	2.8	
C409	Project Work Phase - I	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3	3	3	3	2	2.9	2.9	2.9
C411	Avionics	2.7	2.4	2.4										2.4	1.7	2.4	2.4
C412	Flight Vehicle Design	2	2.7	2.7										2.7	2.7	2.7	2.7
C413	Boundary Layer Theory	2	2	2.9										2.9	2.9	2.9	
C414	INTERNSHIP	1.7	2	2.4		2.4	2.4		2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
C415	Project Work Phase - II	2.7	1.7	2.7	2.6	2.7	2.6	2.7	2	1.7	1.2	1.2	2.1	2.7	2.7	2.7	2.7
C416	Technical seminar	2.8	2.7	2.9	2.9	2.9			2.6		2.6		2.6	2.9	2.9	2.9	2.9
<b>Average Total PO Attainment</b>		<b>1.9</b>	<b>2</b>	<b>2.2</b>	<b>2.5</b>	<b>2.4</b>	<b>1.9</b>	<b>2.1</b>	<b>2</b>	<b>2.3</b>	<b>2.1</b>	<b>2</b>	<b>1.9</b>	<b>2.1</b>	<b>2.3</b>	<b>2.3</b>	<b>2.4</b>
<b>(Scale : 0-3) and ( % )</b>		<b>65</b>	<b>66</b>	<b>72</b>	<b>84</b>	<b>79</b>	<b>65</b>	<b>68</b>	<b>66</b>	<b>77</b>	<b>71</b>	<b>65</b>	<b>64</b>	<b>72</b>	<b>76</b>	<b>76</b>	<b>79</b>


  
**Head of the Department**  
**Aeronautical Engineering**  
**Acharya Institute of Technology**  
**Bangalore - 560 107**



ACHARYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF AERONAUTICAL ENGINEERING  
BENGALURU - 560107

Batch 2016 - 2020

Academic Year	Sl No.	Event	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
2017-18	1	Short Term Training Program - Computer Aided Design and Drawing.	2.00					2.66	2.70	2.78		2.62	2.64		2.36	2.34	2.62	2.60
	2	Educational visit - Air India Engineering Services Ltd, (AIESL) Mumbai.	2.00				2.57	2.71	2.71					2.48	2.71	2.60	2.60	1.00
	3	Educational visit - Transonic Aerodynamic facilities, Combustion and Gas Dynamic laboratory of National	2.00	2.71			2.20	2.30	2.45	2.68	2.41	2.61		2.50	1.00	1.58	1.80	1.00
	4	Workshop – Fundamentals of Python Programming	2.75				2.35	2.55	2.63	2.68		2.75		2.63	2.55	2.68	2.43	2.00
2018-19	1	All India seminar on 'Engineering Insight into design and testing of Aircraft	1.50				2.50	2.55		2.20	2.55			2.35	2.45	2.53	2.63	1.00
	2	Invited talk on Internet of Aircraft Things				2.70	2.07		2.82	2.73	2.64	2.93			2.35			
	3	Knoweldge sharing session by AE's Alumini				2.50	2.49			2.61	2.73	2.80			2.74			
	4	Invited talk - Innovations & PRISM Funding schemes				2.68	2.58		2.61	2.68	3.00	2.52			2.55			
	5	Educational visit -Goa Shipyard Limited and Indian Naval Aviation Museum, Goa	2.50					2.66	2.70	2.78		2.62	2.64		2.36	2.34	2.62	2.60
2019-20	1	Invited talk - The revolutionary concept of boundary layer theory and its prevalence in Aeronautics	2.00				2.57	2.71	2.71					2.48	2.71	2.60	2.60	1.00
	2	Educational vist to Pratt & Whitney training centre, Hyderabad	2.66	2.71			2.48	2.30	2.45	2.68	2.41	2.61		2.50	1.00	1.58	1.80	1.00
	3	Short term training program - Internet of Things	2.75				2.35	2.55	2.63	2.68		2.75		2.63	2.55	2.68	2.43	2.00
	4	Invited talk on Glitz and Glam of Aerospace Engineering	2.58				2.50	2.55		2.20	2.55			2.35	2.45	2.53	2.63	1.00
Total attainment			13.99	2.71	0.00	7.88	19.54	15.33	15.92	20.55	15.88	16.23	2.64	12.30	21.17	14.24	14.69	8.60
Average attainment			1.17	0.23	0.00	0.66	1.63	1.28	1.33	1.71	1.32	1.35	0.22	1.03	1.76	1.19	1.22	0.72

  
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ACHARYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF AERONAUTICAL ENGINEERING  
BENGALURU - 560107  
Batch 2016 - 2020

Name	USN	AUID	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
AHAMED SUKRIYA	1AY17AE001	AIT17BEAE028	3	2	3	2	3	3	1	1	2	2	2	2	3	3	3	1
GAWLI AMAY BHUSHAN	1AY17AE018	AIT17BEAE023	3	2	3	2	2	2	1	2	2	3	3	3	3	3	2	1
MOHAMMED MEERAN A	1AY17AE032	AIT17BEAE023	3	3	2	3	2	2	2	3	3	3	3	3	3	2	3	2
GIRISH N C	1AY17AE020	AIT17BEAE073	2	3	2	3	2	2	2	2	3	3	3	3	3	3	2	1
MOUNIKA R	1AY17AE032	AIT17BEAE072	2	3	2	3	2	2	3	2	3	3	3	3	3	3	2	1
SWATHI S	1AY17AE058	AIT17BEAE076	2	3	3	3	3	2	3	3	3	2	3	3	3	3	3	1
GEETHA	1AY17AE019	AIT17BEAE053	2	3	2	2	3	2	2	3	2	3	2	3	3	3	2	1
JITHENDRA A	1AY17AE002	AIT17BEAE025	2	3	2	2	3	3	3	3	3	3	2	3	3	2	2	1
KRITHI D	1AY17AE027	AIT17BEAE049	3	2	3	3	2	3	3	3	3	2	3	2	3	3	2	1
PAVAN KALYAN	1AY17AE036	AIT17BEAE065	2	3	2	3	3	2	3	3	3	3	2	3	3	3	3	1
SACHITHA H S	1AY17AE043	AIT17BEAE095	2	3	2	3	2	3	3	3	3	2	3	2	3	2	3	1
SHREYAS B A	1AY17AE052	AIT17BEAE036	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	1
MOHAMMED ASHAD KH	1AY17AE065	AIT17BEAE026	2	3	2	3	2	3	3	2	2	3	2	3	3	3	3	1
STEPHEN F J	1AY17AE056	AIT17BEAE069	3	3	3	3	3	2	3	3	2	3	3	3	3	3	2	1
JAGADISH B	1AY17AE023	AIT17BEAE019	3	2	3	3	2	3	3	3	3	3	2	3	3	3	3	1
PRAJWAL DUBEY N	1AY17AE038	AIT17BEAE014	3	2	2	2	3	2	3	2	3	3	2	3	3	3	2	1
Anmol r j	1ay17ae004	Ait17beae031	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1
Harsha M	1AY17AE021	AIT17BEAE074	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1
Anusha D	1AY17AE005	AIT17BEAE068	2	3	2	3	3	3	3	3	2	3	3	3	3	3	3	1
AUCHITTYA PRAKASH	1AY17AE006	AIT17BEAE066	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	1
JIBIN POULOSE	1AY17AE024	AIT17BEAE094	3	2	3	3	3	3	3	3	3	3	3	3	3	2	3	1
BARVALIYA ANJALI JIT	1AY17AE011	AIT17BEAE040	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	1
AYUSH KARMWAR	1AY17AE007	AIT17BEAE063	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	1
JOYDEEP GOSWAMI	1AY18AE404	AIT18BEAE009	3	3	2	3	3	2	3	3	3	3	3	3	3	3	3	1
SYED MUJTABA SHAHI	1AY18AE404	AIT18BEAE009	3	3	3	2	3	3	2	3	3	3	3	3	3	3	3	1
UTTKARSHA GUPTA	1AY17AE061	AIT17BEAE058	2	3	2	3	3	2	3	3	2	3	2	3	3	3	2	1
SAMEEM NAZIR LONE	1AY17AE045	AIT17BEAE059	3	2	3	3	3	2	3	3	2	3	3	3	3	2	3	1
SHIVAM JAISWAL	1AY17AE050	AIT17BEAE057	3	3	3	3	3	2	3	3	3	3	2	3	3	2	3	2
MAYURESH MOHAN HA	1AY17AE029	AIT17BEAE041	3	2	3	3	3	3	3	3	3	3	3	3	3	2	3	1
KARTHIK R	1AY17AE025	AIT17BEAE071	3	3	3	3	2	3	3	3	3	3	2	3	3	2	3	1
SANKARSHANA B K	1AY17AE048	AIT17BEAE010	3	2	3	2	3	3	2	3	3	3	3	3	3	2	3	1
RAHUL MADHUSUDAN	1AY17AE012	AIT17BEAE045	2	3	3	3	2	3	2	3	3	3	3	3	3	3	3	1
BANKAD SANJAY	1AY17AE010	AIT17BEAE039	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	1
LIKHIPH RAJ R	1AY17AE028	AIT17BEAE078	3	2	3	3	3	3	3	3	3	3	3	3	3	3	2	1
DE RICO SOUSA NELITO	1AY17AE015	AIT17BEAE061	3	3	3	2	3	3	3	2	3	3	2	3	3	3	3	1
Total			93	95	92	96	94	92	95	96	97	101	94	102	105	95	95	37
Total attainment			2.637	2.714	2.629	2.743	2.686	2.629	2.714	2.743	2.771	2.886	2.686	2.914	3.000	2.714	2.714	1.057

**Acharya Institute of Technology**  
**Department of Aeronautical Engineering**  
**Attainment of PO & PSO**  
**2016 Batch**

Direct attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CIE+SEE+CES	1.94	1.98	2.17	2.52	2.36	1.94	2.05	1.97	2.3	2.14	1.96	1.92	2.15	2.28	2.28	2.38

Indirect attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Activities	1.17	0.23	0.00	0.66	1.63	1.28	1.33	1.71	1.32	1.35	0.22	1.03	1.76	1.19	1.22	0.72
Program exit survey	2.66	2.71	2.63	2.74	2.69	2.63	2.71	2.74	2.77	2.89	2.69	2.91	3.00	2.71	2.71	1.06
Activities (70 %)	0.82	0.16	0.00	0.46	1.14	0.89	0.93	1.20	0.93	0.95	0.15	0.72	1.23	0.83	0.86	0.50
Program exit survey (30 %)	0.80	0.81	0.79	0.82	0.81	0.79	0.81	0.82	0.83	0.87	0.81	0.87	0.90	0.81	0.81	0.32
Total indirect attainment	1.61	0.97	0.79	1.28	1.95	1.68	1.74	2.02	1.76	1.81	0.96	1.59	2.13	1.64	1.67	0.82

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Direct attainment (80%)	1.55	1.58	1.73	2.01	1.89	1.55	1.64	1.58	1.84	1.71	1.57	1.53	1.72	1.83	1.82	1.90
Indirect attainment (20%)	0.32	0.19	0.16	0.26	0.39	0.34	0.35	0.40	0.35	0.36	0.19	0.32	0.43	0.33	0.33	0.16
Total attainment	1.88	1.78	1.89	2.27	2.27	1.89	1.99	1.98	2.19	2.08	1.76	1.85	2.15	2.16	2.16	2.07

  
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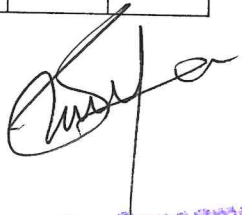
## Department of Biotechnology

2016-20 - batch		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Subject code	Subject	(KB) Engineering knowledge	(PA) Problem analysis:	(Des.) Design	(Inv.) Investigation	(Tools) Use of engineering tools:	(Impacts) Impact of engineering on society	(Enironment) Environ ment and sustaina bility	(Ethics) Ethics and equity:	(Team) Individu al and teamwor k	(Comm.) Commu nication skills	(Econ.) Economi cs and project manage ment	(LL) Life-long learning:	Life Science	In silico	Bioproc ess
15MAT11	Engineering Mathematics-I	0.90	0.9													
15PHY12	Engineering Physics	1.70	1.7										1.7			
15CIV13	Elements of civil engineering and mechanics	1.35	1.35			1.35	1.35		1.35		1.35	1.35				
15EME14	Elements of mechanical engineering	1.40	1.4					1.4					1.4			
15ELE15	Basics electrical engineering	1.15	1.15										1.15			
15WSL16	Workshop practice	1.90	1.9	1.9		1.9	1.9			1.9			1.9			
15PHYL17	Engineering physics laboratory	2.10	2.1	2.1												
15MAT21	Engineering Mathematics-II	0.90	0.9													
15CHE22	Engineering Chemistry	1.75	1.75	1.75				1.75								1.75
15PCD23	Programming in C and Data structure	1.35	1.35	1.35									1.35		1.35	
15CED24	Computer aided engineering drawing	1.50	1.5	1.5		1.5							1.5		1.9	
15ELN25	Basic electronics	1.11	1.11	1.11									1.11			
15CPL26	Computer programming	2.10	2.1	2.1	2.1										2.1	
15CHEL27	Engineering chemistry laboratory	2.35	2.35					2.35	2.35		2.35		2.35			
15MAT31	Mathematics-III	2.07	2.04		2.05								2.09			

15BT32	Unit Operations	1.28	1.52		1.24								1.54	1.2		1.28
15BT33	Biochemistry	1.9		1.99	1.99		1.99							1.84		
15BT34	Microbiology	2.39					2.39		2.49				2.28	2.4		
15BT35	Cell Biology and Genetics	2.13		2.13		2.13					2.13			2.13		
15BT36	Basics of Computer Applications	1.69	1.77	1.7	1.77	1.73									1.94	
15BTL37	Unit Operations Lab	1.66	1.57	1.57				1.57								
15BTL38	Microbiology Lab	2.87	2.87		2.87						2.87	2.87		2.03		1.8
15BT41	Biostatistics and Biomodeling	1.41	1.46	1.3	1.97	1.46							1.1		1.84	1.43
15BT42	Biochemical Thermodynamics	1.38	1.6	1.33										1.53		1.73
15BT43	Molecular Biology	1.64	1.42				1.53						1.63	1.54		
15BT44	Bioprocess Principles and Calculations	1.43	1.41		1.37		1.43	1.37					1.57			1.43
15BT45	Structural Biology	0.73		0.87	1	0.96	0.87				1	0		0.81	0.87	1
15BT46	Clinical Biochemistry	2.12		2.03	2.03		2.03					2.03		2.05		
15BTL47	Cell and Molecular Biology Lab	2.71		2.63	2.63	2.73	2.6							2.86		2.88
15BTL48	Clinical Biochemistry Lab	2.4	2.43		2.4		2.3							2.71		
15BT51	Bio-Kinetics and Bio-reaction Engineering	1.16	0.96	0.67	0.67								1.8	0.96	1.16	1.08
15BT52	Genetic Engineering and Applications	2.33					2.43						2.23	2.43		
15BT53	Immunotechnology	1.81	1.63	2.03			1.63	1.37						1.4		
15BT54	Bioinformatics	1.94		1.9		1.97	1.97		1.9		1.97			1.4	1.93	
15BT553	Animal BT	2.33	2.43				2.43	2.43	2.23					2.33		
15BT563	BT for Sustainable Environment	2.7	2.8				2.8	2.75					2.8	2.7		2.8
15BTL57	Genetic Engg. And Immunotechnology Lab	2.73	2.81		2.86	2.86	2.77		2.7	2.7	2.9		2.9	2.77		2.81

15BTL58	Bioinformatics Lab	2.87	2.76	2.71					2.79		3	2.67		2.34	2.84	2.1
15BT61	Bio-business and Entrepreneurship		2.93		2.93		2.93	2.93	2.93			2.93	2.93	2.1		2.1
15BT62	Bioprocess Control and Automation	2.48	2.47		2.63		2.48	2.3					2.5			2.48
15BT63	Enzyme Technology and Biotransformation	2.3	2.41		2.43		2.38	2.43					2.37	2.26		2.19
15BT64	Bioprocess Equipment Design & CAED	1.2	1.4	1.48	0.7	1.54							1.6	1.58		0.7
15BT653	Cell Culture	2.54	2.46	2.37	2.37		2.3	2.4	2.37					2.52		
15BT663	Nano BT	2.5		2.53	2.53	2.4	2.49	2.53		2.4	2.53		2.53	2.53		2.4
15BTL67	Bioprocess Control and Automation Lab	2.63	2.59	2.87		2.87			2.87	2.4	2.4			1.54		1.38
15BTL68	Biokinetics and Enzyme Technology Lab	1.3	1.45		1.45		1.45							1.3		1.45
15BT71	Fermentation Technology	1.19	1.32	0.9			1.68	1.43					1.97	1.35		1.29
15BT72	Genomics and Proteomics	1.92				2.37	1.77		2.37		1.77	2.37	1.77	1.83	1.93	2.03
15BT73	Plant BT	2.46	2.27		2.3	2.4	2.43	2.49	2.38		2.47		2.47	2.41		2.43
15BT744	Food BT	2.23	2.2		2.2	2.2	2.2							2.23		2.37
15BT752	Forensic Sciences	2.25	2.2			1.87	1.87		2.73				2.2	2		1.57
15BTL76	Fermentation Technology Lab	2.59	2.45	2.27					2.67	2.67			2.67	1.78		2.43
15BTL77	Plant BT lab	2.36	2.84	2.84	2.36				2.84					2.84		2.36
15BT78	Project Phase -1 + Seminar	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
15BT81	Clinical and Pharmaceutical Biotechnology	2.29	1.12	1.4	1.4	1.68	1.4			1.87	2.8		1.4	1.98	1.87	

15BT82	Regulatory affairs in BT industry	2.73	2.73	2.73			2.53		2.4	2.73		2.6	2.57	1.8		2.1
15BT833	Environmental BT	1.9	2.1		2.02		2.4	2.56	1.8		1.8		1.87	1.8		1.64
15BT84	Internship/Professional Practice	2.11	2.4		2.3	2.4	2.4			2.8	2.2	2.3	2.1	2.11	2.7	2.3
15BT85	Project Work Phase 2	1.39	1.34	1.41	1.4	1.44	1.42	1.49	1.44	1.44	1.47	1.41	1.49	1.42	1.4	1.43
15BT86	Seminar	2.11	2.02		2.1		2.1	1.8	2.2	2.2	2.18		2.16	2.1	2.2	2.1
	<b>Sum Total</b>	<b>113.22</b>	<b>95.24</b>	<b>56.97</b>	<b>59.57</b>	<b>41.26</b>	<b>70.15</b>	<b>38.85</b>	<b>46.31</b>	<b>28.48</b>	<b>39.72</b>	<b>17.13</b>	<b>68.5</b>	<b>81.28</b>	<b>27.53</b>	<b>63.21</b>
	Subjects mapped	59	50	31	30	21	34	19	20	13	19	8	35	41	15	33
	PO/PSO attainment (scale of 3)	1.92	1.90	1.84	1.99	1.96	2.06	2.04	2.32	2.19	2.09	2.14	1.96	1.98	1.84	1.92
	PO/PSO attainment (percentage)	64.0	63.5	61.3	66.2	65.5	68.8	68.2	77.2	73.0	69.7	71.4	65.2	66.1	61.2	63.8

  
 Head of The Department  
 Department of Biotechnology  
 Acharya Institute Of Technology  
 Soladevanahalli, Bangalore-562104



**Department of Computer Science and Engineering**  
**Acharya Institute of Technology**

Affiliated to VTU, Recognized by GOK and Approved by AICTE, New Delhi (Accredited by NAAC and NBA)  
 Acharya Dr. Sarvepalli Radhakrishnan Road, Acharya P.O., Soladevanahalli, Bangalore-560107, INDIA  
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**PO Attainment for 2019 - 20 Passed Out Batch**

Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
15MAT11	Calculus and Linear Algebra	2	1.76										
15PHY12	Engineering Physics	2.4	1.78										
15ELE13	Basic Electrical Engineering	2.41	2.3	2.11	2.3		2.1		2.2	2.23	2.26		2.2
15CIV14	Elements of Civil Engineering	2.12	2							2.39	2.37		2.07
15EDGL15	Engineering Graphics	1.5	2.12	2.27	2.2		2.3				2.41		2.5
15PHYL16	Engineering Physics Lab	1.6	2.62	2.9									2
15ELE15	Basic Electrical Engineering Lab	2	2.75	2.61	2.8		2.6		2.26	2.25	2.59		2.8
15MAT21	Advanced Calculus and Numerical Methods	1.61	2.4										
15CHE22	Engineering Chemistry	2.3	2.3	2.3			2.3	2.5					2.5
15CPS23	Computer Concepts and Programming	1.7	2.12	1.74									
15ELN24	Basic Electronics	2.23	1.9	2.3									
15ME25	Elements of Mechanical Engineering	2.5	2.78					2.9					2.6
15CHEL26	Engineering Chemistry Lab	2	2				2	1.77	1.9		2.2		2.2
15CPL27	Computer Programming Lab	1.4	2.2	1.34									
15MAT31	Engineering Mathematics – III	2.1	1.78										
15CS32	Analog and Digital Electronics	2.6	1.8	2.4	2.03								
15CS33	Data Structures and Applications	2	1.3	1.64									
15CS34	Computer Organization	1.7	1.22	1.34		1.55	1.53		1.23				
15CS35	Unix and Shell Programming	2.7	2.5	2.1									
15CS36	Discrete Mathematical Structures	2.2	2.1										
15CSL37	Analog and Digital Electronics Laboratory	1.92	2.3	2.27	1.53				2.7		2.3		
15CSL38	Data Structures Laboratory	2	2.86	2.75									
15MAT41	Engineering Mathematics – IV	1.5	1.8										
15CS42	Object Oriented Concepts	1.4	2	1.9		1.95							2



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15CS43	Design and Analysis of Algorithms	2.1	2.3	1.79									
15CS44	Microprocessors and Microcontrollers	2.1	2.01	2.37	1.38								
15CS45	Software Engineering	2.3	2.1	1.44		1.8			2.3		2.7		
15CS46	Data Communication	2	1.8	1.4	1.9	1.58				1.55			
15CSL47	Design and Analysis of Algorithm Laboratory	1.8	2.49	2.78									
15CSL48	Microprocessors Laboratory	2.2	2.42	2.03									
15CS51	Management and Entrepreneurship for IT Industry	2.8	2.1	1.8	2.12	2.51	2.4						
15CS52	Computer Networks	2.7	1.7	1.86	1.93	1.3	2.05	1.85		2.25	2.3	2.5	2.7
15CS53	Database Management System	2.21	1.5	2.2	1.21	1.4	1.55						
15CS54	Automata theory and Computability	2.1	1.79	1.1						1.5	1.45	1.81	2
15CSL57	Computer Network Laboratory	1.4	2.6	2.2	2.47								
15CSL58	DBMS Laboratory with mini project	2.34	2.3	2.5	1.3	1.67							
15CS61	Cryptography, Network Security and Cyber Law	2.21	2.1	2.2						1.5	1.8	1.46	1.7
15CS62	Computer Graphics and Visualization	2.92	1.7	1.8		1.7							
15CS63	System Software and Compiler Design	2	1.55	1.58									
15CS64	Operating Systems	2.12	1.7	2		1.8							
15CSL67	System Software and Operating System Laboratory	1.76	2.8	2.6	3	2.9							1.8
15CSL68	Computer Graphics Laboratory with mini project	2.13	2.55	2.4	2.56	2.8					2.6		
15CS71	Web Technology and its applications	2.3	2.3	2.98	2.3	2.7	2.2			2.74	2.8	2.6	2.7
15CS72	Advanced Computer Architectures	2.2	2.2	2.1									2.2
15CS73	Machine Learning	2.12	1.65	1	1.29	1.3							
15CSL76	Machine Learning Laboratory	2.7	2.75		2.65	2.7					1.5		1.4
15CSL77	Web Technology Laboratory with mini project	2.67	2.22	2.4	2.3	2.8	2.2				2.2		2.25
													2.3



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15CSP78	Project Work Phase-I + Project work Seminar	2.16	2.8	2.5	2.7	2.7	3		2.6	2.5	2.8	2.8	2.95
15CS81	Internet of Things and Applications	2.34	2.1	2.7	1.5	1.6			1.8	2	2		
15CS82	Big Data Analytics	2.05	2.26	2.52	2.5	2.2	2.4			2	2.3	2.3	2.8
15CS84	Internship/ Professional Practice					2.4	2.3		2.7	2.8	1.7	2.7	2.3
15CSP85	Project Work-II	2.6	2.7	2.6	2.3	2.56	2.5		2.9	2.53	1.1	2.6	2.8
15CSS86	Seminar					2.7	2.9		2.24	2.6	1.3	2.9	2.5
<b>Total PO Attainment</b>		<b>107</b>	<b>109</b>	<b>86.8</b>	<b>46.3</b>	<b>46.6</b>	<b>36.3</b>	<b>9.02</b>	<b>24.8</b>	<b>30.8</b>	<b>42.68</b>	<b>21.67</b>	<b>53.27</b>
<b>Average PO Attainment in Scale of 3</b>		<b>2.02</b>	<b>2.06</b>	<b>1.64</b>	<b>0.88</b>	<b>0.88</b>	<b>0.69</b>	<b>0.18</b>	<b>0.47</b>	<b>0.59</b>	<b>0.81</b>	<b>0.41</b>	<b>1.01</b>
<b>Direct Attainment - 80 %</b>		<b>1.62</b>	<b>1.65</b>	<b>1.31</b>	<b>0.7</b>	<b>0.7</b>	<b>0.55</b>	<b>0.14</b>	<b>0.38</b>	<b>0.47</b>	<b>0.648</b>	<b>0.328</b>	<b>0.808</b>
<b>Average Direct PO Attainment in %</b>		<b>53.9</b>	<b>54.9</b>	<b>43.7</b>	<b>23.5</b>	<b>23.5</b>	<b>18.4</b>	<b>4.8</b>	<b>12.5</b>	<b>15.7</b>	<b>21.6</b>	<b>10.93</b>	<b>26.93</b>
<b>Indirect Attainment in Scale of 3</b>		<b>2.01</b>	<b>2.05</b>	<b>1.98</b>	<b>2.45</b>	<b>2.02</b>	<b>2.32</b>	<b>2.32</b>	<b>2.01</b>	<b>2.03</b>	<b>2.1</b>	<b>2.3</b>	<b>2.1</b>
<b>Indirect Attainment - 20 %</b>		<b>0.4</b>	<b>0.41</b>	<b>0.4</b>	<b>0.49</b>	<b>0.4</b>	<b>0.46</b>	<b>0.46</b>	<b>0.4</b>	<b>0.41</b>	<b>0.42</b>	<b>0.46</b>	<b>0.42</b>
<b>Average Indirect PO Attainment in %</b>		<b>13.4</b>	<b>13.7</b>	<b>13.2</b>	<b>16.3</b>	<b>13.5</b>	<b>15.5</b>	<b>15.5</b>	<b>13.4</b>	<b>13.5</b>	<b>14</b>	<b>15.33</b>	<b>14</b>
<b>Total Attainment</b>		<b>2.02</b>	<b>2.06</b>	<b>1.71</b>	<b>1.19</b>	<b>1.11</b>	<b>1.02</b>	<b>0.61</b>	<b>0.78</b>	<b>0.88</b>	<b>1.068</b>	<b>0.788</b>	<b>1.228</b>
<b>Total Attainment in %</b>		<b>67.3</b>	<b>68.6</b>	<b>56.9</b>	<b>39.8</b>	<b>36.9</b>	<b>33.9</b>	<b>20.3</b>	<b>25.9</b>	<b>29.3</b>	<b>35.6</b>	<b>26.27</b>	<b>40.93</b>



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**PSO Attainment for 2019 - 20 Passed Out Batch**

Course Code	Course Title	PSO 1	PSO 2	PSO 3
15MAT11	Calculus and Linear Algebra			
15PHY12	Engineering Physics			
15ELE13	Basic Electrical Engineering			2.59
15CIV14	Elements of Civil Engineering			
15EDGL15	Engineering Graphics			
15PHYL16	Engineering Physics Lab			
15ELE15	Basic Electrical Engineering Lab			2.74
15MAT21	Advanced Calculus and Numerical Methods			
15CHE22	Engineering Chemistry			
15CPS23	Computer Concepts and Programming	2.11	2.4	
15ELN24	Basic Electronics	2		
15ME25	Elements of Mechanical Engineering		2.8	
15CHEL26	Engineering Chemistry Lab			
15CPL27	Computer Programming Lab	1.9	1.89	
15MAT31	Engineering Mathematics – III			
15CS32	Analog and Digital Electronics	1.47	1.5	
15CS33	Data Structures and Applications	2.2	1.5	1.29
15CS34	Computer Organization	1.29	0.9	1.19
15CS35	Unix and Shell Programming	2.48	2.1	
15CS36	Discrete Mathematical Structures			
15CSL37	Analog and Digital Electronics Laboratory	2.6	2.6	
15CSL38	Data Structures Laboratory	2.55	2.57	2.6
15MAT41	Engineering Mathematics – IV			
15CS42	Object Oriented Concepts	2.6	2.6	1.9



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15CS43	Design and Analysis of Algorithms	1	1.54	
15CS44	Microprocessors and Microcontrollers	1.09	1.73	
15CS45	Software Engineering	2.2	2.2	1.69
15CS46	Data Communication	1.8		
15CSL47	Design and Analysis of Algorithm Laboratory	2.6	2.68	2.68
15CSL48	Microprocessors Laboratory	1.57		
15CS51	Management and Entrepreneurship for IT Industry	1.43	1.3	2.1
15CS52	Computer Networks	2.48	2.48	
15CS53	Database Management System	2.1	1.7	1.2
15CS54	Automata theory and Computability	2.3	2.14	1.5
15CSL57	Computer Network Laboratory	1.7	1.85	
15CSL58	DBMS Laboratory with mini project	1.29	1.55	2.1
15CS61	Cryptography, Network Security and Cyber Law	2.1	1.98	
15CS62	Computer Graphics and Visualization	3	1.69	1.4
15CS63	System Software and Compiler Design	2.5	1.68	
15CS64	Operating Systems	2.3	1.91	1.9
15CSL67	System Software and Operating System Laboratory	1.92	2.9	3
15CSL68	Computer Graphics Laboratory with mini project	1.9	2.99	2.86
15CS71	Web Technology and its applications	1.79		1.9
15CS72	Advanced Computer Architectures	2.1	2.05	
15CS73	Machine Learning	1.85	1.2	1.45
15CSL76	Machine Learning Laboratory	2.5	2.85	
15CSL77	Web Technology Laboratory with mini project	2.6		1.9
15CSP78	Project Work Phase-I + Project work Seminar	2.4	2.5	2.5



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15CS81	Internet of Things and Applications	2.9		1.8
15CS82	Big Data Analytics	1.25	2.34	2.5
15CS84	Internship/ Professional Practice	2.55	2.7	2.7
15CSP85	Project Work-II	2.3	2.6	2.9
15CSS86	Seminar	2.95	2.9	2.9
<b>Total PSO Attainment</b>		<b>81.67</b>	<b>72.32</b>	<b>53.29</b>
<b>Average PSO Attainment in Scale of 3</b>		<b>1.55</b>	<b>1.37</b>	<b>1.01</b>
<b>Direct Attainment - 80 %</b>		<b>1.24</b>	<b>1.096</b>	<b>0.808</b>
<b>Average Direct PSO Attainment in %</b>		<b>41.33</b>	<b>36.53</b>	<b>26.93</b>
<b>Indirect Attainment in Scale of 3</b>		<b>2.01</b>	<b>2.05</b>	<b>1.98</b>
<b>Indirect Attainment - 20 %</b>		<b>0.4</b>	<b>0.41</b>	<b>0.4</b>
<b>Average Indirect PSO Attainment in %</b>		<b>13.33</b>	<b>13.67</b>	<b>13.33</b>
<b>Total Attainment</b>		<b>1.64</b>	<b>1.506</b>	<b>1.208</b>
<b>Total Attainment in %</b>		<b>54.67</b>	<b>50.2</b>	<b>40.27</b>

*Resprilagi*

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Summary of PO and PSOs Attainment for the Batch: 2016																	
Graduation Period: 2016-to-2020		Scheme			2015		No.of Courses				46		PSOs				
CID	Title of Course	Programme Outcome(PO)s												PSOs			
		1	2	3	4	5	6	7	8	9	10	11	12				
C201	Engineering Mathematics –III	1.8	1.4														
C202	Strength of Materials	1.5	1.7		1									1.8	1.2	0.7	0.4
C203	Fluid Mechanics	2.34	1.6	1.2		0.9		1		0.8				1.7	0.8	1.9	1.5
C204	Basic Surveying	1.8	2.1	1		0.3		1.2					1	2	1.9		
C205	Engineering Geology	2	1.3	1	1	1	1.8	0.9					0.6	1.1	1		
C206	Building Materials and Construction	2.5						1.3					0.9	1.5	0.8		
C207	Building Materials Testing Laboratory	2.7	2.1	1.5	1.3	2.3	2.05	2.14	1.9	1.7	2	1	1.2	2.54	2.5		
C208	Basic Surveying Practice	2.8	2.3	2.5	2.9	2.15	2.2	2.75	2.3	1.9	2	1.7	2.15	1.8	2.3		
C211	Engineering Mathematics –IV	2.5	1.8														
C212	Analysis of Determinate Structures	2.1	2											1.6	1.9	2.01	1.85
C213	Applied Hydraulics	2.4	1.6	0.7		0.7		0.9		1				1.8	0.9	1.1	1.8
C214	Concrete Technology	2.4	2.5	1.8	1.9	2.3	1.4	2.4					2.1	2	1.6		
C215	Basic Geotechnical Engineering	2.4	2.1	1.8										1.7	0.6	0.9	1.8
C216	Advanced Surveying	1.4	1.8	1.9	1.7				1.9				1.8	1.5	0.8		
C217	Fluid Mechanics Laboratory	2.5	2.3					1.8					0.9	1.3	1.9		
C218	Engineering Geology Laboratory	2.1					2.3	2.2			1.8		0.8		1.9		
C301	Design of RC Structural Elements	1.4	2.1	1.7	1.2	0.5							0.9	1.9	0.5	1.5	1.9
C302	Analysis of Indeterminate Structures	2.1	1.9											1.6	1.7	1.8	
C303	Applied Geotechnical Engineering	2.2	2.3	1.8	2.1	1.4								1.5		1.2	1.1
C304	Computer Aided Building Planning and Drawing	2.1	2.2			2.2				1.6			2.7	2.1	2.4		
C305	Railways, Harbours, tunneling and Airports	2.2	1.9	2.7			1.9	1.8	2				1.8	1.9			
C306	Air pollution and Control	2.3	2.9				1.9	1.1					2	2.5			
C307	Geotechnical Engineering Laboratory	2.6	1.8	1	2.1	2.04	2.3	2.1	2.2	1.8	1.9		2.2		2.3		
C308	Concrete and Highway Materials Laboratory	2.65		2.9			2.1	2.2	2.5						2		
C311	Construction Management and Entrepreneurship	1.9	0.8	1.3										2	1.4		
C312	Design of Steel Structural Elements	1.2	1.5	2.1										2.3		1.8	1.5
C313	Highway Engineering	1.95	1.3	1.1	1.3	0.9	1			1.2	0.8	0.9	1	1.2	1.1	1.3	1.2

Summary of PO and PSOs Attainment for the Batch: 2016																	
Graduation Period: 2016-to-2020		Scheme				2015		No.of Courses				46		PSOs			
CID	Title of Course	Programme Outcome(PO)s												1	2	3	4
		1	2	3	4	5	6	7	8	9	10	11	12				
C314	Water Supply and Treatment Engineering	1.76	1.34	1.4	1.9			2.4					2.1		2.1		
C315	Solid Waste Management	2.4						2.5					2.14		2.11		
C316	Software Application Laboratory	2.87	2.11	2.12		2.45	1.4		2.11	2.14		2.3	2.15	1.3			
C317	Extensive Survey Project /Camp	2.43	2.33			2.5	2.7	2.2	2.4		2.22	2.7	2.1	2.34	2.11	2.45	2
C401	Municipal and Industrial Waste Water Engineering	1.9	1.5	2.1	2			2.1					1.5		2.14		
C402	Design of RCC and Steel Structures	1.9	2	2.25					2				1.8	1.6		1.4	1.3
C403	Hydrology and Irrigation Engineering	2.1	1.8	1.8				0.5						2	2	1.1	1.2
C404	Ground Water & Hydraulics	2	1.9	2.1	2.1			1.6	1.5				1	2.1		1.8	1.5
C405	Urban Transportation and Planning	2.1	2.1				1.3					1.3			1.5		
C406	Rehabilitation and Retrofitting of Structures	2.1	1.9				1.5					1.4			2		
C407	Environmental Engineering Laboratory	2.1	1.5	2	2.3	0.9	1.8	2	0.8	1.9	1.5		1.7	0.9	1.9		
C408	Computer Aided Detailing of Structures	2	2.5	2.7			2	2.1	2.15				2.46	2.15	1.9		
C409	Project Phase I +Project Seminar	2.96	2.56	1	1	1.4	0.9	1.8	2.1	2.3	1.8	2.7	2.7	2.8	1.8	2.4	2.1
C411	Quantity Surveying and Contracts Management	2.7	2	1	1.3		1.5					1.8	1.6	2.56	1.7		
C412	Design of Pre Stressed Concrete Elements	2.75	2.67	2.3									1.7	2.46	1.3	1.5	1.8
C413	Pavement Design	2.5	2.1	2.1	2.55				2.1					2.4	1.9	1.75	1.8
C414	Internship/ Professional Practice	2	2			1.95	1.9	1.85	2.25	2.1	1.8		1.8	1			
C415	Project Work	2.8	2.95	0.9	1	1.25	0.8	1.5	1.9	2	1.9	2.8	2.1	2.86	2	2	2.5
C416	Seminar on current trends in Engineering and Technology	2.85					2.15	2.3	2.4				2.2	1	2.5		
Total PO Attainment		102.1	80.6	51.8	30.7	27.1	36.9	46.6	34.5	20.4	17.7	18.6	51.1	65.2	60.4	28.5	29.1
Average PO Attainment in Scale of 3		2.17	1.71	1.10	0.65	0.58	0.79	0.99	0.73	0.43	0.38	0.40	1.09	1.39	1.28	0.61	0.62
<b>DIRECT ATTAINMENTS - 80 % (CIE+SEE+CES)</b>		1.74	1.37	0.88	0.52	0.46	0.63	0.79	0.59	0.35	0.30	0.32	0.87	1.11	1.03	0.49	0.49
Average PO Attainment in %		58	46	29	17	15	21	26	20	12	10	11	29	37	34	16	16
Average Indirect PO Attainment in Scale of 3		2.75	2.65	2.88	2.36	2.74	2.59	2.44	2.36	2.75	2.85	2.75	2.68	2.56	2.77	2.68	2.49
<b>INDIRECT ATTAINMENTS - 20% (Activities + Exit Survey)</b>		0.55	0.53	0.58	0.47	0.55	0.52	0.49	0.47	0.55	0.57	0.55	0.54	0.51	0.55	0.54	0.5
Average Indirect PO Attainment in %		18.33	17.7	19.2	15.7	18.3	17.3	16.3	15.7	18.3	19	18.3	17.9	17.1	18.5	17.9	16.6
<b>TOTAL ATTAINMENT</b>		<b>2.29</b>	<b>1.90</b>	<b>1.46</b>	<b>0.99</b>	<b>1.01</b>	<b>1.15</b>	<b>1.28</b>	<b>1.06</b>	<b>0.90</b>	<b>0.87</b>	<b>0.87</b>	<b>1.41</b>	<b>1.62</b>	<b>1.58</b>	<b>1.02</b>	<b>0.99</b>
<b>TOTAL ATTAINMENT %</b>		<b>76</b>	<b>63</b>	<b>49</b>	<b>33</b>	<b>34</b>	<b>38</b>	<b>43</b>	<b>35</b>	<b>30</b>	<b>29</b>	<b>29</b>	<b>47</b>	<b>54</b>	<b>53</b>	<b>34</b>	<b>33</b>

  
**H.O.D.**  
 Civil Engineering Department  
 Acharya Institute of Technology  
 Bangalore - 560 107

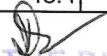


Department of Electronics and Communication Engineering  
Acharya Institute of Technology

Affiliated to VTU, Recognized by GOK and Approved by AICTE, New Delhi (Accredited by NBA)  
Acharya Dr. Sarvepalli Radhakrishnan Road, Acharya P.O., Soladevanahalli, Bangalore-560107, INDIA

Subjects	CO-PO ATTAINMENT 2016-2020 BATCH												No. of Courses=53		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
I5MAT3 1	2.1	2.1													
I5EC32	1.8	1.9	2.2										2.3		
I5EC33	1.8	1.9	2.6		2.6								2.6		
I5EC34	2.3	2.3										3.3	2.3		
I5EC35	2.1	2.1											2.7		
I5EC36	2	2													
I50CL37	1.8	1.9	2.7										2.8		
1aECL38	1.8	1.9	2.8										2.8		
I5MAT41	2.1	2.1													
I5EC42	1.8	1.9										2.6		2	
I5EC43	2		2											2	
I5EC44	1.6	2.1										1.8		1.6	
I5EC45	2.4	2.3													2.4
I5EG46	2.3	2.3	2.3										2.3		
I5ECL47	1.8	1.9	2.5	2.5				2.5						2.5	
I5ECL48	2.1	2.1	2.6												2.2
I5ES5 1							2.4	2.4	2.3	2.3	2.4	2.4			
I5EC52	2.1	2.1	2.5	2.5									2.5	2.5	
I5EC53	2.1	2.1	2.6	2.5	2.6								2.6	2.6	
I5EC54	2.1	2.1	2.6												2.5
I5EC553		2.4										2.4		2.4	2.4
I5EC562	2.1	2.1		2.5										2.5	2.5
I5CS662	2.1	2.1				2.7				2.5		2.5			2.5
I5ECL57	2.1	2.1	2.9		2.9									2.9	
I5ECL58	2.1	2.1	2.8	2.8								2.8	2.8		
I5EC61	2.1	2.1	2.3	2.4										2.5	2.4
I5EC62	1.8	1.9	2.6	2.6								2.5		2.5	
I5EC63	2.1	2.1				2.6				2.5		2.5			2.5
I5EC64	2.1	2.1	2.5		2.6				2.9			2.5			2.5
I5EC65I	2.1	2.1	2.5												2.5
I5EC653	1.5	2				2.6				2.5		2.5			2.5
I5CS66I	1.8	1.9						2.4	2.4			2.4			2.4

15CS663	2.1	2.1	2.5	23	2.5										
15CS664	2.1	2.1	2.3									2.6		2.6	
15ECL67	2.1	2.1	2.6		2.7			2.7						2.6	
15ECL68					1.8				1.8			1.8			1.8
15EC71	2.1	2.1	2.4		2.5		2.3			2.3		2.4			2.4
15EC72	2.1	2.1										2.9		2.9	
15EC73	1.8	1.9											3	3	3
1JEC741	2.1	2.1										2.6		2.6	2.6
15EC752	2.1	2.1			2.5					2.5		2.4		2.4	
15EC755	2.1	2.1		2.6	2.6										2.6
15EC753	2.1	2.1												2.4	
15ECL76	2.1	2.1				2.7				2.6		2.6			2.6
15ECL77	2.1	2.1	2.9		2.8							2.8	2.8	2.8	
15ECP78	2.1	2.1	3	3	3	3	3	3	3	3	3	3	3	3	3
15EC81	2.1	2.1											3	3	3
15EC82	2.1	2.1	2.5		2.5				2.6			2.6	2.6		2.6
15E 834		2.4							2.4						2.4
15EC835	2.3							2.3	2.3			2.3			2.3
15EC84	2.1	2.1		3	3	3		3	3	3	3		3	3	3
15ECP85				3	3	3	3				3		3	3	3
15ECS86	2.1	2.1			3			3	3			3	3	3	3
<b>Direct PO Attainment</b>	<b>97.7</b>	<b>97.9</b>	<b>83.7</b>	<b>71.5</b>	<b>37.6</b>	<b>22.1</b>	<b>10.7</b>	<b>42.9</b>	<b>25.7</b>	<b>20.7</b>	<b>8.4</b>	<b>80.4</b>	<b>49.1</b>	<b>59.8</b>	<b>89.1</b>
<b>Direct PO Attainment in Scale of 3</b>	<b>1.84</b>	<b>1.85</b>	<b>1.58</b>	<b>1.35</b>	<b>0.71</b>	<b>0.42</b>	<b>0.20</b>	<b>0.81</b>	<b>0.48</b>	<b>0.39</b>	<b>0.16</b>	<b>1.5</b>	<b>0.9</b>	<b>1.1</b>	<b>1.7</b>
<b>Direct PO Attainment in %</b>	<b>61.4</b>	<b>61.6</b>	<b>52.6</b>	<b>45.0</b>	<b>23.6</b>	<b>13.9</b>	<b>6.7</b>	<b>27.0</b>	<b>16.2</b>	<b>13.0</b>	<b>5.3</b>	<b>50.6</b>	<b>30.9</b>	<b>37.6</b>	<b>56.0</b>
<b>IN DIRECT ATTAINMENT OF POS</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>	<b>2.2</b>	<b>2.1</b>	<b>2.2</b>	<b>2.1</b>	<b>2.1</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>	<b>2.5</b>
<b>Percentage</b>	<b>80.0</b>	<b>80.0</b>	<b>76.7</b>	<b>80.0</b>	<b>80.0</b>	<b>76.7</b>	<b>73.3</b>	<b>70.0</b>	<b>73.3</b>	<b>70.0</b>	<b>70.0</b>	<b>80.0</b>	<b>80</b>	<b>77</b>	<b>83</b>
<b>Total Attainment</b>	<b>2.12</b>	<b>2.12</b>	<b>1.94</b>	<b>1.87</b>	<b>1.55</b>	<b>1.36</b>	<b>1.20</b>	<b>1.45</b>	<b>1.34</b>	<b>1.25</b>	<b>1.13</b>	<b>1.96</b>	<b>1.66</b>	<b>1.71</b>	<b>2.09</b>
<b>Percentage</b>	<b>70.72</b>	<b>70.79</b>	<b>64.65</b>	<b>62.48</b>	<b>51.82</b>	<b>45.28</b>	<b>40.03</b>	<b>48.49</b>	<b>44.75</b>	<b>41.51</b>	<b>37.64</b>	<b>65.28</b>	<b>55.44</b>	<b>57.14</b>	<b>69.69</b>
<b>IN DIRECT ATTAINMENT OF POS</b>	<b>1.4</b>	<b>0.9</b>	<b>0.6</b>	<b>1.1</b>	<b>1.9</b>	<b>2</b>	<b>1.7</b>	<b>1.6</b>	<b>1.9</b>	<b>1.6</b>	<b>1.1</b>	<b>1.8</b>	<b>0.6</b>	<b>0.8</b>	<b>0.9</b>
<b>Average PO and PSO Mapping in %</b>	<b>47</b>	<b>30</b>	<b>20</b>	<b>37</b>	<b>63</b>	<b>67</b>	<b>57</b>	<b>53</b>	<b>63</b>	<b>53</b>	<b>37</b>	<b>60</b>	<b>20</b>	<b>27</b>	<b>30</b>
<b>Total PO and PSO Mapping in Scale of 3</b>	<b>1.9774</b>	<b>1.8789</b>	<b>1.6717</b>	<b>1.7196</b>	<b>1.6238</b>	<b>1.4868</b>	<b>1.3008</b>	<b>1.4838</b>	<b>1.454</b>	<b>1.3162</b>	<b>1.1234</b>	<b>1.9268</b>	<b>1.4506</b>	<b>1.5313</b>	<b>1.8525</b>
<b>Total PO and PSO Mapping in</b>	<b>65.9</b>	<b>62.6</b>	<b>55.7</b>	<b>57.3</b>	<b>54.1</b>	<b>49.6</b>	<b>43.4</b>	<b>49.5</b>	<b>48.5</b>	<b>43.9</b>	<b>37.4</b>	<b>64.2</b>	<b>48.4</b>	<b>51.0</b>	<b>61.7</b>

  
 HEAD OF THE DEPARTMENT  
 DEPARTMENT OF ELECTRONICS AND  
 COMMUNICATION ENGINEERING  
 ACHARYA INSTITUTE OF TECHNOLOGY  
 BANGALORE-560107



**ACHARYA INSTITUTE OF TECHNOLOGY**

Bengaluru – 560 107

**Department of Electrical and Electronics Engineering**

**Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2016**

Graduation Period: 2016-to-2020		Scheme		2015										No.of Courses : 61		
CID	Title of Course	Programme Outcome(PO)s												PSOs		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101	Engineering Maths-I	1.6	0.3													
C102	Engineering Physics	1.1	0.4	0.4												
C103	Elements of Civil Engg. & Mechanics	1.8	1.7	2.9			1.2	2.2			1.1		0.7			
C104	Elements of Mechanical Engg.	2.1		0.5									2.6			
C105	Basic Electrical Engg.	0.6	1.3	1.1	1.1				2.9	2.9			2.6			
C106	Workshop Practice	0.3	1.0	0.4				2.9	1.4				2.8			
C107	Engg. Physics Lab	1.8	2.2	1.2												
C111	Engineering Maths-II	1.6	0.9													
C112	Engineering Chemistry	1.7	2.5				0.3	2.2					1.2			
C113	Programming in C & Data Structures	1.3		0.5				1.8			0.6		1.1			
C114	Computer Aided Engineering Drawing	0.7	1.2			1.8	2.0			1.3		0.5	2.0			
C115	Basic Electronics	1.7	0.4													
C116	Computer Programming Lab	1.6	0.6	3.0												
C117	Engg. Chemistry Lab	1.7	2.6			1.6	3.0		1.0	0.9		1.6	1.5			
C118	Environmental Studies	1.9	0.5		2.0		2.8		1.3	1.9		2.7	0.9			
C201	Engineering Mathematics-III	2.1	1.7													
C202	Electric Circuit Analysis		1.2			0.8			1.5	2.1		2.1	2.5	1.7		
C203	Transformers and Generators	1.8	1.6	2.2		0.5	1.8				2.2	2.7	2.3		2.4	
C204	Analog Electronic Circuits	1.6	2.0		2.3		2.5	2.8			1.9	2.8	1.2			
C205	Digital System Design	1.5	2.3		1.6	1.4			1.6	1.8	2.9		2.9			
C206	Electrical and Electronic Measurements	1.7			2.1		2.1	3.0		2.7		2.6	2.1			2.0

C207	Electrical Machines Laboratory -1	2.2	2.6	1.9	2.3		1.9		2.2		1.4	2.5							
C208	Electronics Laboratory	2.2	2.3			1.5	2.1												
C211	Engineering Mathematics-IV	1.9		1.9							2.1	2.4							
C212	Power Generation and Economics	2.0	2.6	2.2				2.4	2.2										
C213	Transmission and Distribution	1.8	2.7		1.9			1.5	2.6		1.9		1.3			1.5			
C214	Electric Motors	2.3	1.1			1.4	2.2					2.0	2.7						
C215	Electromagnetic Field Theory	2.8	2.9	1.1				3.0			1.5		2.1	1.4					
C216	Operational Amplifiers and Linear ICs	2.3	2.0		1.3	2.3		1.9		3.0	1.6		2.7			2.7	2.1		
C217	Electrical Machines Laboratory -2	2.8		1.9		1.2		1.5	2.2		2.5	1.3	2.3						
C218	Op- amp and Linear ICs Laboratory	1.5	2.5	1.8	2.8	3.0	2.1		2.7	2.1		2.7	1.4			1.6			
C301	Management and Entrepreneurship	1.2		2.9				2.9	2.1	1.8	2.7		2.8	2.1			1.8	1.9	
C302	Microcontroller	2.5	1.6	1.8				2.7	1.9	2.7			2.6	1.6					
C303	Power Electronics	1.7			1.4	1.3			1.5	2.0		2.2							
C304	Signals and Systems	2.0	2.3		1.9				2.1		2.9	2.4	1.4	1.4	2.3				
C305	Professional Elective – I	2.5	1.6		3.0		1.9	2.1	2.6	1.6									
C306	Open Elective - I	2.1	3.0	2.6	2.8		2.8		1.8		2.5	2.7	2.6	1.1					
C307	Microcontroller Laboratory	1.9		2.0	1.6		2.6		1.5	2.3		3.0						2.5	
C308	Power Electronics Laboratory	1.8	1.2			2.0	1.4		2.9		2.1		2.6	1.2					
C311	Control Systems	2.6			1.3	1.4	2.3				2.7	2.3		2.3				2.2	
C312	Power System Analysis – 1	2.9	1.2		1.9	1.6			1.7		1.6	1.4	3.0		2.2				
C313	Digital Signal Processing	1.7	2.7				2.3	1.6		2.7	2.4								
C314	Electrical Machine Design	2.0		2.8		3.0		2.9	1.9									1.0	
C315	Professional Elective – II	1.4		0.5	2.4	2.2		1.2				1.1	2.7	2.0					
C316	Open Elective - II	1.2	2.0	2.1		2.4	2.6	2.1	1.1	1.1		1.6	2.5	1.0	2.0			2.0	1.2
C317	Control System Laboratory	2.6	2.2		2.7	2.8	2.8	2.8	1.6		2.1			1.1	2.3				
														2.5	1.7				

C318	Digital Signal Processing Laboratory	1.9		2.2	1.5	1.9	2.8	1.0		3.0	1.7	2.7	2.1	1.3		
C401	Power System Analysis - 2	2.6		1.6		2.3	2.5			2.8	2.7		1.8			
C402	Power System Protection	2.4		2.8	1.4	2.3		2.1	2.5		2.9		1.0		1.3	1.1
C403	High Voltage Engineering	2.9	3.0			2.3	2.4	2.5	3.0		2.4		2.3			
C404	Professional Elective – III	2.1	1.8		2.0			2.0	2.7			2.3	1.5	2.4	2.6	
C405	Professional Elective – IV	1.2	2.9	1.9	2.7		1.6		1.1				1.0	2.2		2.2
C406	Power system Simulation Laboratory	1.7	1.7		2.6		2.7		2.6	2.7	1.6	1.3			1.4	1.2
C407	Rely and High Voltage Laboratory	1.9			1.3		2.0	2.2	1.4	2.7		2.2	2.9			
C408	Project Phase – I + Seminar	1.5		2.7	1.3	1.5	1.8		1.3		1.3		2.3	0.6		
C411	Power System Operation and Control	2.1	1.3	2.3		2.4	2.7						1.2			
C412	Industrial Drives and Applications		2.3	1.8	2.7	1.6	1.8	1.2	1.4	2.4	2.0		1.5			
C413	Professional Elective – V	1.9	1.9		1.8	2.8		1.6		2.2	2.1	2.1				
C414	Internship / Professional Practice	1.9		2.5	0.8	2.9		2.8		1.8	1.3	1.9				
C415	Project Work Phase -II	1.8	1.2	1.3		2.5		2.6	2.5	2.1		2.7	1.9	2.2		2.2
C416	Seminar	1.9	2.3		1.2	2.3		2.9	2.2		1.5		1.3			
Total PO Attainment		109.52	79.02	56.82	55.58	56.80	72.23	68.39	57.08	60.81	58.23	68.24	71.25	28.50	22.49	16.14
Total PO Attainment in Scale of 3		1.80	1.30	0.93	0.91	0.93	1.18	1.12	0.94	1.00	0.95	1.12	1.17	0.47	0.37	0.26
DIRECT ATTAINMENTS – 80% (CIE + SEE + CES)		1.44	1.04	0.75	0.73	0.74	0.95	0.90	0.75	0.80	0.76	0.89	0.93	0.37	0.29	0.21
Average Direct PO Attainment in %		48	35	25	24	25	32	30	25	27	25	30	31	12	10	7
Average Indirect PO Attainment in Scale of 3		1.56	2.54	2.02	1.91	2.03	2.65	2.11	2.64	2.07	1.92	2.32	1.96	2.10	2.45	2.22
INDIRECT ATTAINMENTS – 20% (Activities + Exit Survey)		0.31	0.51	0.40	0.38	0.41	0.53	0.42	0.53	0.41	0.38	0.46	0.39	0.42	0.49	0.44
Average Indirect PO Attainment in %		19	31	25	23	25	32	26	32	25	23	28	24	26	30	27
TOTAL ATTAINMENT		1.75	1.54	1.15	1.11	1.15	1.48	1.32	1.28	1.21	1.15	1.36	1.33	0.79	0.78	0.66
TOTAL ATTAINMENT in %		58	51	38	37	38	49	44	43	40	38	45	44	26	26	22

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**Professor & HOD**  
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 Acharya Institute of Technology,  
 Siddhantnagar, Bangalore 560 027




**ACHARYA INSTITUTE OF TECHNOLOGY**  
**Bengaluru – 560 107**  
**Department of Information Science & Engineering**

**Summary of Average Mapping of COs to POs, for the Batch: 2020**

Graduation Period: 2016-to-2020		Scheme		2015										No.of Courses : 61		
CID	Title of Course	Programme Outcome(POs)												PSOs		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
C101	15MAT11	2	1.76													
C102	15PHY12	2.4	1.78										2.2			
C103	15ELE13	2.41	2.3	2.11	2.3		2.1		2.2	2.2	2.26		2.07			
C104	15CIV14	2.12	2								2.4	2.37		2.5		
C101	15EDGL15	1.50	2.12	2.27	2.2		2.3					2.41		2		
C106	15PHYL16	1.60	2.62	2.9										2.8		
C117	15ELE15	2	2.75	2.61	2.8		2.6		2.26	2.3	2.59		2.8			
C108	15MAT21	1.61	2.4													
C111	15SCHE22	2.3	2.3	2.3			2.3	2.5								
C112	15CPS23	1.7	2.12	1.74									2		2	
C113	15ELN24	2.23	1.9	2.3									1.4			
C104	15ME25	2.5	2.78					2.9					2.6			
C115	15CHEL26	2	2				2	1.8	1.9		2.2		2.2			
C112	15CPL27	1.4	2.2	1.34									2.6		2	
C117	Engineering Mathematics – III(15MATS31)	2.1	1.78													
C118	Analog and Digital Electronics(15CS32)	2.6	1.8	2.3	2									2		
C201	Data Structures and Applications(15CS33)	2	1.5	2		2							2.5		2	
C202	Computer Organization (15CS34)	2	1.5	1.5									1	2		
C203	Unix and Shell Programming(15CS35)	2.7	2.6	2.2		2							2.6		2	
C204	Discreet Mathematical Structures(15CS36)	2.8	2.1	2									1			
C205	Analog and Digital Electronics Laboratory(15CSL37)	2.5	2	2		2							2	1		
C206	Data Structures Laboratory (15CSL38)	2.4	2.3	2		2.5							2.6		2	
C207	Engineering Mathematics - IV(15MAT41)	1.5	1.9													
C208	Software Engineering(15CS 42)	2.2	2	1.9										2		2

C211	Design and Analysis of Algorithms(15CS43)	2.6	2.7	2.3		2						2.5		2
C212	Microprocessors and Microcontrollers(15CS44)	2.1	2.03	2.2								1.6		2
C213	Object Oriented Concepts(15CS45)	2.4	2.1	2		2						2.3		2
C214	Data Communication(15CS46)	2.1	1.9	1.2								1.5	2	
C215	Design and Analysis of Algorithm(15CSL47) Laboratory	2.6	2.5	2.4		2.7						2.5		2.0
C216	Microprocessors Laboratory (15CSL48)	2.3	2.5	2.2		2.6								2
C217	Management and Entrepreneurship for IT Industry(15CS51)	2.9	2.2	1.9	2.1			1.5	1.6		2.3	2	2	
C218	Computer Networks(15CS52)	2.8	1.8	1.7	1.6	1.3		1.3	1.4			2.3	2	
C301	Database Management System(15CS53)	2.6	2.4	2.2		2.5		2.0	1.8			2.2		2.0
C302	Automata theory and Computability(15CS54)	2.5	2.2	2.3				1.5	1.9			2	1.5	
C303	Professional Elective 1(15CS55x)	2.1	2.2	2.3		2.0		2.0	2.0			2.0		1.5
C304	Open Elective 1(15CS56x)	2.2	2.3	2.2		2		2.1	2.2			2.1		1.5
C305	Computer Network Laboratory(15CSL57)	2.6	2.1	2.3		2.6		2.1	2.3			2.4	2.0	
C306	DBMS Laboratory with mini project(15CSL58)	2.3	2.4	2.5		2.6		2	2.2			2.3		2
C307	Cryptography, Network Security and Cyber Law(15CS61)	2.7	1.2	1				1.8	2.1			2.1	2	
C308	File Structures(15IS62)	2.3	2.2	2.1				1.6	1.9			2.2		2
C311	Operating Systems(15CS64)	2.4	2.3	2.5				1.7	1.8			2.1		2
C312	Professional Elective 2(15CS/IS65x)	2.2	2.3	2.2		2		2.1	2.2			2.1	1.5	
C313	Open Elective 2(15CS/IS66x)	2.1	2.2	2.1		1.8		2.0	2.0			1.9		1.5
C314	Software Testing Laboratory(15ISL67)	2.4	2.3	2		2.6		2	2.2			1.8		2
C314	File Structures Laboratory with mini project(15ISL68)	2.3	2.2	2.1		2.5		1.3	1.6	1.9	1.2	2.2		2
C316	Web Technology and its applications(15CS71)	2.2	2.4	2.1		2.5		1.5	1.8			2.4		2
C317	Advanced Computer Architectures(15CS72)	1.5	1.6	1.3				1.4	1.5			1.8	2	
C318	Machine Learning(15CS73)	2.3	2.2	2.1		1.5		1.2	1.5			2.5		2

C401	Professional Elective 3(15CS74x)	2.2	2.3	2.2		2			2.1	2.2			2.1	2	
C402	Professional Elective 4(15CS75x)	2.1	2.2	2.3		2.0			2.0	2.0			2.0		2
C403	Machine Learning Laboratory(15CSL76)	2.4	2.5	2.4		2.5			1.9	1.6			2.5		2
C403	Web Technology Laboratory with mini project(15CSL77)	2.3	2.4	2.2		2.5		1.3	1.6	1.9		1.3	2.2		2
C404	Project Phase 1 + Seminar(15CSP78)	2.1	2.3	2.4	1.3	2.5	1.3	1.5	1.8	1.9	1.6	2.1	2.4		2
C406	INTERNET OF THINGS TECHNOLOGY(15CS81 )	2.1	2.3	2.2					1.3	1.5			2		2
C407	BIG DATA ANALYTICS(15CS82)	2.2	2.1	2.2					1.2	1.3	1.8		2.0		2.0
C408	HIGH PERFORMANCE COMPUTING(15CS831 )	2.1	2.1	2.3					1.3	1.5			2.1		2
C411	INTERFACE DESIGN(15IS832)	2.2	2.1	1.8					1.4	1.3			2		2
C412	VIRTUAL REALITY(VIRTUAL REALITY )	2.1	2.2	2.1		1.5			1.3	1.5			2.0		2.0
C413	SYSTEM MODELLING AND SIMULATION(15CS834)	2.2	2.3	2.4		1.2			1.4	1.6			1.5	2	
C414	INTERNSHIP / PROFESSIONAL PRACTISE(15CS84 )	2.1	2.3	2.4	1.3	2.5	1.3	1.5	1.8	1.9	1.6	2.1	2.4		2
C412	PROJECT WORK PHASE II(15CSP85)	2.2	2.4	2.4	1.4	2.5	1.4	1.6	1.9	1.9	1.7	2.3	2.3		2
C413	SEMINAR (15CSS86)	2.1				2.5			1.8	1.9	1.6		2.4		2
<b>Total PO-PSO Mapping</b>		<b>137</b>	<b>132</b>	<b>112</b>	<b>17</b>	<b>65</b>	<b>15</b>	<b>14</b>	<b>61</b>	<b>65</b>	<b>20</b>	<b>11</b>	<b>118</b>	<b>24</b>	<b>67</b>
<b>Average PO-PSO Mapping in Scale of 3</b>		<b>2.3</b>	<b>2.2</b>	<b>1.8</b>	<b>0.3</b>	<b>1.1</b>	<b>0.3</b>	<b>0.2</b>	<b>1.0</b>	<b>1.1</b>	<b>0.3</b>	<b>0.2</b>	<b>1.9</b>	<b>0.4</b>	<b>1.1</b>
<b>Direct Attainment(80%)</b>		<b>1.8</b>	<b>1.7</b>	<b>1.5</b>	<b>0.2</b>	<b>0.9</b>	<b>0.2</b>	<b>0.2</b>	<b>0.8</b>	<b>0.9</b>	<b>0.3</b>	<b>0.1</b>	<b>1.5</b>	<b>0.3</b>	<b>0.9</b>
<b>Average Direct Attainment in %</b>		<b>60</b>	<b>58</b>	<b>49</b>	<b>7</b>	<b>29</b>	<b>7</b>	<b>6</b>	<b>26</b>	<b>28</b>	<b>9</b>	<b>5</b>	<b>51</b>	<b>10</b>	<b>29</b>
<b>Average Indirect Attainment in scale of 3</b>		<b>2.7</b>	<b>2.6</b>	<b>2.7</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.4</b>	<b>1.8</b>	<b>2.1</b>
<b>Indirect Attainment(20%)</b>		<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>
<b>Average Indirect Attainment in %age</b>		<b>17.8</b>	<b>17.2</b>	<b>18.04</b>	<b>17.8</b>	<b>18</b>	<b>17.4</b>	<b>18</b>	<b>17.97</b>	<b>17.7</b>	<b>17.46</b>	<b>17.1</b>	<b>16.23</b>	<b>12</b>	<b>14</b>
<b>Total Attainment</b>		<b>2.3</b>	<b>2.3</b>	<b>2.0</b>	<b>0.8</b>	<b>1.4</b>	<b>0.7</b>	<b>0.7</b>	<b>1.3</b>	<b>1.4</b>	<b>0.8</b>	<b>0.7</b>	<b>2.0</b>	<b>0.7</b>	<b>1.3</b>
<b>Total Attainment in %</b>		<b>77.8</b>	<b>75.1</b>	<b>67.0</b>	<b>25.2</b>	<b>46.6</b>	<b>24.1</b>	<b>23.8</b>	<b>44.4</b>	<b>46.2</b>	<b>26.3</b>	<b>22.0</b>	<b>67.6</b>	<b>22.5</b>	<b>43.1</b>

  
 Head of the Department  
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**Department of Mechanical Engineering**  
**Acharya Institute of Technology**

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Summary of PO and PSOs Attainment for the Batch: 2016																		
Graduation Period: 2016-2020		Scheme			2015		No.of Courses					47		PSOs				
CID	Title of Course	Programme Outcome(PO)s												1	2	3	4	
		1	2	3	4	5	6	7	8	9	10	11	12					
C201	ENGG. MATHEMATICS-III	1.7	1.7															1.6
C202	MATERIALS SCIENCE	1.6											1.6			1.7		
C203	BASIC THERMODYNAMICS	1.6	1.6										1.6	1.4	1.4			
C204	MECHANICS OF MATERIALS	0.6	0.4										0.5	0.53	0.27			
C205	METAL CASTING AND WELDING	2.1											1.6	1.6			1.2	
C206	COMPUTER AIDED MACHINE DRAWING	2.2				2.2					2.2		2.2	2.2			2.2	
C207	MATERIALS TESTING LAB	2.6	2.6		2.6						2.6		2.6	2.68				
C208	FOUNDRY AND FORGING LAB	2.8			2.6						2.8		2.6	2.7			2.8	
C211	ENGG. MATHEMATICS-4	0.9	0.9															0.9
C212	KINEMATICS OF MACHINERY	1.5	1.2	0.8									1.2	1.3	1.2			
C213	APPLIED THERMODYNAMICS	0.8	0.6										0.9	1.1	0.8			
C214	FLUID MECHANICS	0.9	0.7										0.9		0.8			
C215	MACHINE TOOLS AND OPERATIONS	1.2	1.2										1.3				1.07	
C216	MECHANICAL MEASUREMENTS AND METROLOGY	1.5											1.5				1.5	
C217	MECHANICAL MEASUREMENTS AND METROLOGY LAB	2.6			2.4						2.4						2.6	
C218	MACHINE SHOP LAB	2.6			2.4						2.4		2.4				2.6	
C301	MANAGEMENT AND ENGINEERING ECONOMICS	2.1	2.2										2.1					2.1
C302	DYNAMICS OF MACHINES	2.1	2.1										2.1	2.1	2.1			
C303	TURBO MACHINES	2.2	2.2										2.2	2.3	2.2			
C304	DESIGN OF MACHINE ELEMENTS-1	1.6	1.6	1.6									1.6		1.6	1.7		
C305	AUTOMATION AND ROBOTICS	1.9		1.9									1.9		1.93			
C305	NON TRADITIONAL MACHINING	2.3	2.3										2.3		2.3			
C307	FLUID MECHANICS & MACHINES LAB	2.8	2.8										2.8	2.8	2.7			
C308	ENERGY LAB	2.7	2.7										2.7	2.7	2.7			
C311	FINITE ELEMENT METHOD	2.2	2.2	2.3									2.3		2.2			

Summary of PO and PSOs Attainment for the Batch: 2016																			
Graduation Period: 2016-2020		Scheme			2015			No. of Courses					47		PSOs				
CID	Title of Course	Programme Outcome(PO)s												1	2	3	4		
		1	2	3	4	5	6	7	8	9	10	11	12						
C312	COMPUTER INTERGRATED MANUFCTURING	2.1	2.2	2.1	2.2										2.1	2.27		2.26	
C313	HEAT TRANSFER	1.4	1.4												1.5	1.8	1.8		
C314	DESIGN OF MACHINE ELEMENTS - II	1.8	1.9	1.9											1.8	1.8	1.8	1.8	
C315	AUTOMOBILE ENGINEERING	1.9	1.8												1.9	1.9	1.9		
C315	MECHANICS OF COMPOSITE MATERIALS	1.8	1.7	2.1											1.8	2.4			
C316	TOTAL QUALITY MANAGEMENT	2.2													2.1				2.1
C317	HEAT TRANSFER LAB	2.7	2.6												2.7	2.7	2.7		
C318	MODELING AND ANALYSIS LAB	2.8	2.7	2.6		2.7							2.7		2.7	2.6	2.7	2.8	
C401	ENERGY ENGINEERING	2.2	2.1												1.7	0.5	0.7	0.75	
C402	FLUID POWER ENGINEERING	1.3	1.8	1.6	1.7										2.3	2.3	2.3		
C403	CONTROL ENGINEERING	2.3	2.3	2.4											2	2			
C404	SMART MATERIALS AND MEMS	1.9	2.0						2.0						2.3	2.3	2.3		
C405	AUTOMOTIVE ELECTRONICS	2.3	2.2												2.3	2.3	2.3		
C406	DESIGN LABORATORY	2.4	2.5	2.5	2.6		2.4		2.6	2.6	2.4				2.5	2.5	2.5		2.5
C407	COMPUTER INTEGRATED MANUFACTURING LAB	2.4	2.4	2.4	2.6	2.6	2.3		1.8	2.6	2.2				2.3	2.6	2.6		2.65
C408	PROJECT PHASE - I	2.4	2.4	2.4	2.6	2.6	2.3		1.8	2.6	2.2				2.9	2.9	2.9	2.9	
C408	PROJECT PHASE - I	2.9	2.9			2.9		2.9							2.7	2.6		2.4	2.26
C411	OPERATIONS RESEARCH	2.6	2.6		2.5										2.0		2.13	2.17	
C412	ADDITIVE MANUFACTURING	2.1	1.9	2.0		2.1									2.4				2.53
C413	PRODUCT LIFECYCLE MANAGEMENT	2.4													2.4				2.6
C414	INTERNSHIP	2.6	2.6	2.6		2.6	2.7		2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6
C415	PROJECT PHASE II	2.3	2.5			2.3		2.3		2.3					2.3	2.3	2.3	2.1	
C416	TECHNICAL SEMINAR PRESENTATION	2.3	2.5			2.3		2.3		2.3					2.4			3	3
C416	TECHNICAL SEMINAR PRESENTATION	2.4	2.4						2.4	2.4	2.4	2.4			2.4				
Direct	Total PO and PSO Attainment	96	73.6	28.8	21.9	17.5	7.39	7.6	11.6	23.3	20.2	5.35	88.2	61.2	59.4	38.6	22.2		
	Average PO and PSO Attainment in Scale of 3	2.04	1.57	0.61	0.47	0.37	0.16	0.16	0.25	0.5	0.43	0.11	1.88	1.3	1.26	0.82	0.47		
	Average PO and PSO Attainment in %	68	52	20	16	12	5	5	8	17	14	4	63	43	42	27	16		
Indirect	Average PO and PSO Attainment in Scale of 3	1.9	1.2	1.1	1.2	1.6	1.8	1.9	1.2	1.2	0.8	0.6	1.3	1.2	1.1	0.8	0.9		
	Average PO and PSO Attainment in %	63	40	37	40	53	60	63	40	40	27	20	43	40	37	27	30		
Overall	Average PO and PSO Attainment in Scale of 3	2.01	1.49	0.71	0.61	0.62	0.49	0.51	0.44	0.64	0.5	0.21	1.76	1.28	1.23	0.82	0.56		
	Average PO and PSO Attainment in %	67.1	49.8	23.6	20.4	20.6	16.2	17	14.6	21.2	16.8	7.03	58.7	42.7	41	27.2	18.6		

  
**HEAD OF THE DEPARTMENT** 2/2  
 Mechanical Engg.  
**ACHARYA INSTITUTE OF TECHNOLOGY**



**ACHARYA INSTITUTE OF TECHNOLOGY**  
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Department of Mechatronics Engineering

Summary of Total Attainment of POs (Direct: 80% and indirect 20%) for the batch 2020

Graduation Period: 2016-to-2020		Scheme		2015										No.of Courses : 62			
CID	Title of Course	Programme Outcome(PO)s										PSOs					
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	
C101	ENGINEERING MATHS-I	1.80	1.80														
C102	ENGINEERING CHEMISTRY	1.90	1.70				1.70	1.70					1.90				
C103	PROGRAMMING IN C & DATA STRUCTURES	1.56	1.50	1.50											1.80		
C104	COMPUTER AIDED ENGINEERING DRAWING	1.72	1.56	1.99		1.44								2.86			
C105	BASIC ELECTRONICS	1.63	1.50												1.60		
C106	COMPUTER PROGRAMMING LAB	2.67	2.68	2.70											1.20		
C107	ENGG. CHEMISTRY LAB	2.66	2.70				2.70	2.70					2.60				
C108	ENVIRONMENTAL STUDIES	0.82						2.83					1.24				
C111	ENGINEERING MATHS-II	1.70	1.70														
C112	ENGINEERING PHYSICS	2.40	2.40										2.40	1.40	1.40	1.10	
C113	ELEMENTS OF CIVIL ENGG. & MECHANICS	1.69	1.67							1.60	1.60		1.60				
C114	ELEMENTS OF MECHANICAL ENGG.	1.29	1.20					1.30					1.27	2.30			
C115	BASIC ELECTRICAL ENGG.	2.04	1.99	2.06	2.07	2.10	2.10	2.10	2.10	2.11	2.08	2.10	2.09		1.20		
C116	WORKSHOP PRACTICE	1.52	1.33	1.25											1.85		
C117	ENGG. PHYSICS LAB	2.00	2.20	2.50											1.30	1.40	
C118	CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND HUMAN RIGHTS	0.84								2.64				1.46			
C201	ENGINEERING MATHEMATICS – III	1.50	1.50	1.50	1.40								1.50				
C202	MATERIAL SCIENCE& TECHNOLOGY	1.64											1.57		1.66	2.05	
C203	MECHANICS OF MATERIALS	2.23	2.18	2.15	2.20									2.23		2.16	
C204	CONTROL SYSTEM	2.70	2.70	2.70	2.70	2.70								2.70	2.70		
C205	ANALOG AND DIGITAL ELECTRONICS	1.90	1.90	1.88											1.90	1.90	
C206	COMPUTER ORGANIZATION	2.36	2.36												2.40		
C207	MECHANICAL LAB – I	2.70	2.70	2.67	2.70									2.69	2.70	2.70	
C208	ANALOG AND DIGITAL ELECTRONICS LAB	2.90	2.90	2.90	2.90			2.90		2.90	2.90		2.90		2.90	2.90	
C211	ENGINEERING MATHEMATICS – IV	1.40	1.40	1.40	1.40								1.40				
C212	FLUID MECHANICS AND MACHINES	1.49	1.61	1.74	1.80									1.58			
C213	MICRO CONTROLLER	2.60	2.50	2.60	2.50	2.60							2.50		2.60	2.60	
C214	MANUFACTURING TECHNOLOGY	2.58	2.58	2.58	2.58									2.58			
C215	THEORY OF MACHINES	1.84	1.84	1.85	1.83	1.83								1.84			
C216	INSTRUMENTATION AND MEASUREMENT	2.47	2.46	2.45											2.47	2.47	
C217	MECHANICAL LAB – II	2.66	2.66	2.72										2.68		2.68	
C218	MICRO CONTROLLER LAB		2.70	2.70											2.70	2.70	
C301	DESIGN OF MACHINE ELEMENTS	1.85	1.83	1.87								1.85	1.85	1.86		1.85	
C302	VIRTUAL INSTRUMENTATION	2.80	2.70	2.70	2.70	2.70								2.70	2.70	2.70	
C303	HYDRAULICS AND PNEUMATICS	1.90	1.90	1.95										1.90			
C304	MICRO AND SMART SYSTEMS TECHNOLOGY	2.30		2.30										2.30	2.30	2.30	
C305	WIRELESS NETWORKS & COMMUNICATION	2.60	2.60												2.60		
C306	AUTOMATION IN MANUFACTURING	2.70	2.70	2.70	2.70									2.70	2.70	2.70	
C307	VIRTUAL INSTRUMENTATION LAB	2.90	2.90	2.90	2.90	2.90									2.90	2.90	
C308	MICRO AND SMART SYSTEMS TECHNOLOGY LAB	2.71	2.67	2.64	2.63	2.60								2.70	2.70	2.68	
C311	PLC & SCADA	2.90	2.90	2.90	2.80	2.90								2.90	2.90		
C312	EMBEDDED SYSTEMS (ARM)	2.40	2.40	2.40	2.30		2.40	2.40			2.40				2.40		
C313	POWER ELECTRONICS	1.97	1.93	1.92											1.97	1.97	
C314	COMPUTER AIDED MACHINE	2.76	2.76	2.76	2.70										2.75		2.75
C315	SATELLITE COMMUNICATION	2.50	2.50	2.50	2.50		2.50	2.50			2.50			2.50	2.50	2.50	
C316	PROCESS INSTRUMENTATION	2.50	2.50	2.60	2.50	2.50								2.50	2.50		
C317	PLC & SCADA LAB	2.90	2.90	2.90	2.90	2.90									2.90	2.90	
C318	POWER ELECTRONICS LAB	2.87	2.87	2.70											2.87	2.87	
C401	INDUSTRIAL ROBOTICS	2.46	2.46	2.48	2.48	2.50					2.50	2.50	2.50	2.46	2.46	2.50	
C402	THERMAL ENGINEERING	1.87	1.88	1.89	1.90									1.88		1.87	
C403	SIGNAL PROCESS	2.30	2.60	2.20	2.00	3.00								1.60	2.20	3.00	
C404	REAL TIME SYSTEMS	2.00	1.80	1.60	1.60	1.40								2.00	1.90		
C405	ARTIFICIAL NEURAL NETWORKS	2.60	2.60	2.60											2.60	2.60	
C406	ROBOTICS LAB	2.81	2.70	2.90	2.60	3.00					3.00		2.95	2.82	2.70	2.95	
C407	SIGNAL PROCESS - LAB	2.76	2.74	2.65	2.73										2.73	2.73	
C408	PROJECT PHASE – I SEMINAR	1.80	1.80	1.80	1.20	1.80	1.20	1.20	2.40	3.00	1.20	1.20	3.00	3.00	3.00	3.00	
C411	AUTOMOTIVE ELECTRONICS & HYBRID VEHICLES	2.67	2.67	2.68	2.68	2.70								2.68		2.67	
C412	COMMUNICATION SYSTEM	2.50	2.50												2.50	2.50	
C413	ARTIFICIAL INTELLIGENCE	2.60	2.60	2.60		2.60							2.60		2.60	2.60	
C414	INTERNSHIP/PROFESSIONAL PRACTICE	1.50	1.50	1.50		1.50	2.25		0.75	0.75	0.75	2.25	2.25	3.00	3.00	3.00	



**ACHARYA INSTITUTE OF TECHNOLOGY**  
**Bengaluru - 560 107**  
**Department of Master of Business Administration**

**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2018**

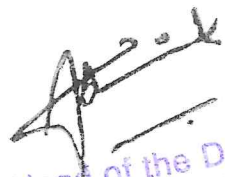
Graduation Period: 2018-to-2020		Scheme		2018		No.of Courses		38	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C101	MANAGEMENT & ORGANIZATIONAL BEHAVIOUR(18MBA11)	1.512	1.512						
C102	MANAGERIAL ECONOMICS (18MBA12)	1.72	1.616						
C103	ACCOUNTING FOR MANAGERS (18MBA13)	0.9504	1.0432				1.28	0.96	
C104	BUSINESS STATISTICS & ANALYTICS (18MBA14)	1.8912	1.8768				1.84		1.92
C105	MARKETING MANAGEMENT (18MBA15)	1.568	1.4752					1.52	
C106	MANAGERIAL COMMUNICATION (18MBA16)	2.1248	1.9968						
C201	HUMAN RESOURCE MANAGEMENT (18MBA21)	2.12	2.12			2.12	2.08	2.08	
C202	FINANCIAL MANAGEMENT (18MBA22)								
C203	RESEARCH METHODOLOGY (18MBA23)	1.2032	1.2032						
C204	LEGAL AND BUSINESS ENVIRONMENT (18MBA24)	1.696	1.696						
C205	STRATEGIC MANAGEMENT (18MBA25)	2.0896	2.0944				2.08		
C206	ENTREPRENEURSHIP AND LEGAL ASPECTS (18MBA26)	1.0368	1.0432					1.04	
C301	CONSUMER BEHAVIOR (18MBAMM301)	1.7728	1.7728			1.7728			1.76
C302	RETAIL MANAGEMENT (18MBAMM302)	1.9616	2.0416						
C303	SERVICES MARKETING (18MBAMM303)	2.264	2.264				2.32		2.32
C304	BANKING & FINANCIAL SERVICES (18MBAFM301)								
C305	INVESTMENT MANAGEMENT (18MBAFM302)	1.4704	1.4704				1.44	1.44	1.44
C306	DIRECT TAXATION (18MBAFM303)	1.1088	1.0832				1.12		1.12
C307	ADVANCED FINANCIAL MANAGEMENT (18MBAFM304)	1.6016	1.5936	1.6016			1.6		1.6
C308	COST MANAGEMENT (18MBAFM305)	1.368	1.368	1.368			1.36	1.36	1.2
C309	PROJECT APPRAISAL, PLANNING & CONTROL (18MBAFM306)	1.752	1.752	1.7344			1.76		1.76
C310	RECRUITMENT AND SELECTION (18MBAHR301)	1.6208	1.592				1.6		1.6
C311	HR ANALYTICS (18MBAHR302)	2.0528	2.056	2.0528			2.08	2.08	
C312	COMPENSATION & REWARD SYSTEM (18MBAHR303)	2.032	2.032	1.9696	2.032		2	2	
C313	INTERNSHIP (20MBAIN307)	2.2512	2.2512				2.24	2.24	2.24
C401	SALES MANAGEMENT (18MBAMM401)	2.1344	2.1344	2.1344				2.16	2.16
C402	INTEGRATED MARKETING COMMUNICATION (18MBAMM402)	2.1472	2.1504				2.16		2.16
C403	DIGITAL & SOCIAL MEDIA MARKETING (18MBAMM403)	2.1328	2.1424	2.1328	2.1328		2.16	2.16	
C404	MERGERS, ACQUISITIONS & CORPORATE RESTRUCTURING (18MBAFM401)	2.288	2.288	2.288			2.32	2.32	
C405	RISK MANAGEMENT AND INSURANCE (18MBAFM402)	2.072	2.072	2.08			2.08		2.08
C406	INDIRECT TAXATION (18MBAFM403)	2.2288	2.2288				2.24		
C407	INTERNATIONAL FINANCIAL MANAGEMENT (18MBAFM404)	2.1952	2.1952	2.1952	2.08	2.1952	2.16	2.16	
C408	FINANCIAL DERIVATIVES (18MBAFM405)								
C409	CORPORATE VALUATION (18MBAFM406)	1.496	1.496	1.496	1.496		1.52		1.52
C410	PUBLIC RELATIONS (18MBAHR401)	1.6224	1.4688	1.4688			1.6	1.68	
C411	ORGANIZATIONAL LEADERSHIP (18MBAHR402)	1.9808	1.9808	1.9808	1.9808		2		2



**ACHARYA INSTITUTE OF TECHNOLOGY**  
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**Summary of Total Attainment of POs (Direct: 80% and Indirect: 20%) for the Batch : 2018**

Graduation Period: 2018-to-2020		Scheme		2018		No.of Courses		38	
Total Attainment of Programme Outcomes							Program Specific Outcomes		
CID	Title of Course	1	2	3	4	5	1	2	3
C412	INTERNATIONAL HUMAN RESOURCE MANAGEMENT (18MBAHR403)	1.4608	1.4528	1.4592	1.3936		1.44		
C413	PROJECT WORK (18MBAPR407)	1.5152	1.5184	1.5152			1.52	1.52	
<b>Total PO PSO Attainment</b>		<b>62.4416</b>	<b>62.0816</b>	<b>27.4768</b>	<b>11.1152</b>	<b>6.088</b>	<b>46</b>	<b>26.72</b>	<b>26.88</b>
<b>Average Total PO PSO Attainment</b>		<b>1.64</b>	<b>1.63</b>	<b>0.72</b>	<b>0.29</b>	<b>0.16</b>	<b>1.21</b>	<b>0.70</b>	<b>0.71</b>
<b>(Scale : 0-3) and (%)</b>		<b>54.77</b>	<b>54.46</b>	<b>24.10</b>	<b>9.75</b>	<b>5.34</b>	<b>40.35</b>	<b>23.44</b>	<b>23.58</b>

  
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**Acharya Institute of Technology**  
**Department of MBA**  
**Attainment of PO & PSO**  
**2018-20 Batch**

Direct attainment	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
CIE+SEE+CES	1.64	1.63	0.72	0.29	0.16	1.21	0.70	0.71

Indirect attainment	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
Activities	2.01	2.12	1.33	2.20	2.48	2.60	1.67	1.65
Program exit survey	2.02	1.96	2.03	1.97	1.96	1.91	1.99	1.99
Activities (70 % )	1.40	1.48	0.93	1.54	1.73	1.82	1.17	1.15
Program exit survey (30 %)	0.61	0.59	0.61	0.59	0.59	0.57	0.60	0.60
Total indirect attainment	2.01	2.07	1.54	2.13	2.32	2.40	1.77	1.75

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>Direct attainment (80%)</b>	<b>1.31</b>	<b>1.31</b>	<b>0.58</b>	<b>0.23</b>	<b>0.13</b>	<b>0.97</b>	<b>0.56</b>	<b>0.57</b>
<b>Indirect attainment (20%)</b>	<b>0.40</b>	<b>0.41</b>	<b>0.31</b>	<b>0.43</b>	<b>0.46</b>	<b>0.48</b>	<b>0.35</b>	<b>0.35</b>
<b>Total attainment</b>	<b>1.72</b>	<b>1.72</b>	<b>0.89</b>	<b>0.66</b>	<b>0.59</b>	<b>1.45</b>	<b>0.92</b>	<b>0.92</b>
<b>Total Attainment in %</b>	<b>57.23%</b>	<b>57.38%</b>	<b>29.53%</b>	<b>22.03%</b>	<b>19.76%</b>	<b>48.25%</b>	<b>30.54%</b>	<b>30.55%</b>

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