



Department of Electrical and Electronics Engineering Acharya Institute of Technology

Affiliated to VTU, Recognized by GOK and Approved by AICTE, New Delhi, Accredited by NAAC
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Comprehensive Academic Framework

The Department follows a well-structured **Comprehensive Academic Framework** designed to ensure holistic academic and professional development of students throughout the four-year program. The framework systematically integrates:

- 1) Core and elective courses
- 2) Structured contact hours
- 3) Laboratory and project components
- 4) Co-curricular & extra-curricular activities
- 5) Employability and skill enhancement modules

Phase-wise Academic Progression:

1. **Year 1 – Foundation:** Strong grounding in basic sciences and engineering fundamentals
2. **Year 2 – Skill Building:** Core domain knowledge with laboratory-intensive learning
3. **Year 3 – Industry Connect:** Internships, industry interaction, mini-projects, and advanced electives
4. **Year 4 – Career Launch:** Major projects, research exposure, placements, and higher studies preparation

The framework is aligned to ensure attainment of all **12 Program Outcomes (POs)**, enabling holistic technical, professional, and ethical development.

Innovations in Teaching–Learning Practices (TLP)

The Department adopts a **progressive, student-centric and technology-driven approach** to enhance engagement, conceptual clarity, and application-oriented learning.

1. PEP Model (Participative–Experiential–Problem-Solving)

The core TLP framework is based on:

1. **Participative Learning:** Interactive discussions, peer learning, seminars, and flipped classrooms
2. **Experiential Learning:** Lab-integrated theory, simulations, mini-projects, and hands-on experiments
3. **Problem-Solving Learning:** Case studies, real-world problem statements, design challenges, and industry-based assignments

2. ICT-Enabled Learning Ecosystem

1. Extensive use of ICT tools, smart classrooms, simulation software, and digital resources
2. Mandatory student use of laptops for coding, simulations, modeling, and data analysis
3. Alive LMS- **E-Content Modules** (PPTs, notes,) sharing with sharing and online quizzes
4. Faculty-developed **YouTube Video Lectures** for core subjects/Lab courses

3. MOOC Integration

MOOC courses are mapped to specific subjects as structured assignments to:

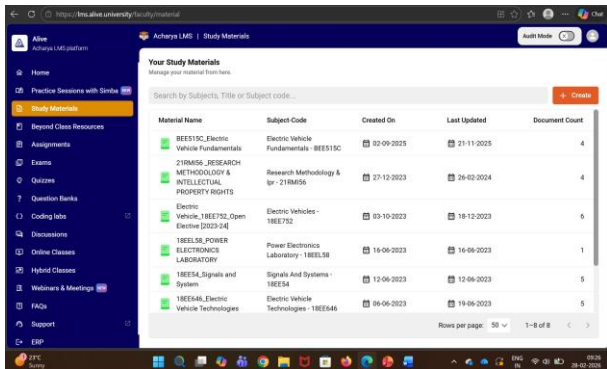
1. Enhance conceptual depth
2. Promote self-directed learning
3. Strengthen technical competencies

4. Industry & Skill Integration

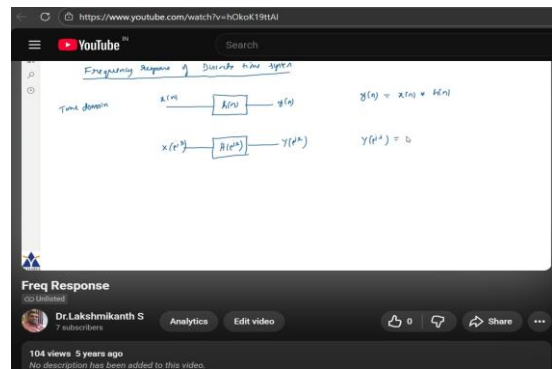
To bridge academia–industry gaps, the department promotes:

1. Value Added Programs (VAPs)
2. Industrial visits & internships
3. Guest lectures by industry experts
4. Faculty Development Programs (FDPs)
5. Industry Specialized Certification programs (L&T- Electric vehicle and e-Mobility)

Digital Content Development & Delivery



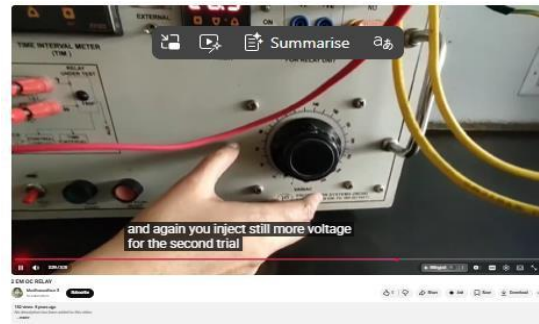
E- Content Uploaded on ALIVE LMS by faculty



Videos Developed for Core Courses By Dr Lakshmi Kanth, CSE course

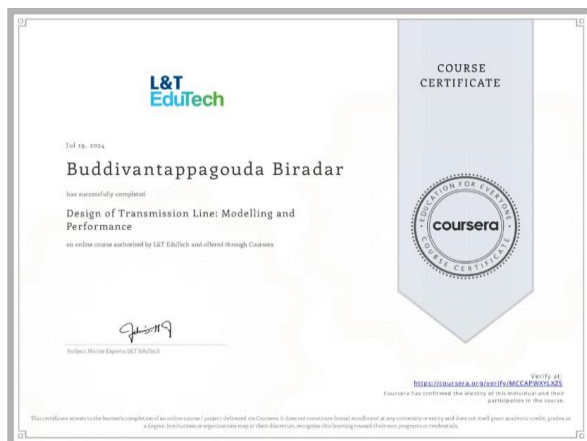


Transformers & Generators laboratory YouTube Video Repository -Prof Nagesh H



Relay and HV Laboratory YouTube Video Repository – Mr. Madhusudhan S and Dr Kusumadevi G H

MOOC courses- Self Learning



MOOC Certifications – Coursera & NPTEL

Industrial Visits & Field Exposure



Industrial Visit – Varahi Underground Power House, Udupi District.



Industrial Visit – Bureau of Indian Standards (BIS) Bengaluru



Industrial Visit – Essen Electricals, SSI-Area Rajajinagar, Bengaluru.



Industrial Visit to KPTCL Substation, Nelamangala Bengaluru Rural.



Industrial Visit to Auto EV Expo 2023, Bengaluru



Industrial Visit – BMRC, Bengaluru

Participatory Learning



Simulation Based Learning



Videos/Animation



Case study



Flipped Class



Virtual Lab -Hands on



Debate Activity

Experiential Learning

Value-Added Program (VAP), Course-Integrated Mini Project and Simulation-Based Learning.



Embedded system and IOT



Industrial Automation and PLC



Industrial Automation 4.0
Value added programs (Every Semester) on Industry aligned technologies

Problem-Based/Project-Based Learning (PBL)



Major Projects Exhibition Technostava

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