AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY
(Autonomous)
(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU-GV, Vizianagaram)
NAAC "A+" Accredited Institute
Cherukupally (Village), Near Thagarapuvalasa Bridge, Vizianagaram (Dist), AP, Pin-531162.
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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Minutes of the 3rd Board of Studies (BOS)

Mode: Through Hybrid Mode

Topic: 3rd BOS - EEE Meeting Avanthi Institute of Engineering & Technology (AUTONOMOUS), Cherukupally

Time: May 31, 2026, 10:00 AM India

Join Zoom Meeting

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The Meeting of the 3rd Board of Studies of Computer Science and Engineering, Avanthi Institute of Engineering and Technology (Autonomous), Cherukupally (Village), Near Thagarapuvalasa Bridge, Vizianagaram (Dist), AP, Pin-531162 was held on 30-05-2026 (Friday) from 10.00 AM to 11.30 AM, Venue: Conference Hall.

Members Present:

1. **Dr. K. Sri Kumar**
   Professor, Department of Electrical and Electronics Engineering, University College of Engineering -Vizianagaram, JNTU-GV, Vizianagaram.
2. **Dr P. Chandra Shekhar**
   Associate Professor, School of Electrical and Computer Sciences
   Indian Institute of Technology (IIT), Bhubaneswar.
3. **Dr P. Sankar**
   Assistant Professor, Department of Electrical Engineering
   National Institute of Technology (NIT), Tadepalligudem.
4. **Sri. M Dharma Raju**
   Divisional Engineering (Technical)
   APEPDCL, Visakhapatnam.
5. **Sri. Y.L.V.Santosh Kumar**
   HSE Manager, L&T Hydrocarbon, Visakhapatnam.
6. **All Faculty Members**

Department of Electrical and Electronics Engineering, AIET (A)

7. **Dr.Gandi Satyanarayana**
   Dean-Academics & Professor of CSE, AIET (A)
8. **Dr.R. Sasidhar,**
   Associate Professor & Head, Department of EEE, Chairperson, Board of Studies, AIET (A)

Item 1:

Welcome Address by the Chairperson BoS.

Resolutions:

- **Dr.R.Sasidhar, Associate Professor & Head of the Department of Mechanical Engineering** and Chairperson of the Board of Studies extended a warm welcome to all the esteemed BOS members. He conveyed heartfelt gratitude for their presence and the valuable time they dedicated to the academic deliberations.
- With the permission of the members, the Chairperson presented the instiutional profile and provided a comprehensive overview of the department's academic progress, emphasizing is commitment to academic excellence, accreditation achievements, research and innovation, and continuous improvement in alignment with the principles of **NEP-2020** and Outcome-Based Education (OBE) **for the academic year 2025-2026.**
- The Chairperson highlighted the significance of strengthening industry-academia collaboration in curriculum design to ensure the development of a contemporary, holistic, skill-oriented, and career-focused curriculum that meets emerging industry requirements and global standards.

Item 2:

- **Confirmation and approval of Minutes of 2nd Bos Meeting conducted on 21-05-2025**

Members Suggestions:

- The Chairperson informed the esteemed members that the **2nd Board of Studies (BoS) Meeting of the Department of Electrical and Electronics Engineering** was conducted on **21-05-2025**.He further explained that all suggestions and recommendations put forth by the honorable members during the meeting were duly incorporated, and the minutes of the meeting were subsequently reviewed and approved.
- The Chairperson further informed the members that the following course structures and syllabi, framed under the R24 Regulations, were discussed and approved in the 2nd BoS

Meeting and subsequently ratified by the 2nd Academic Council Meeting on 21-05-2025 for implementation from the academic year 2025-2026:

- **II B.Tech (I & II Semesters) – Electrical and Electronics Engineering,**
- **II M.Tech (I & II Semesters) – Power Systems & Power Electronics,**
- **B.Tech Honors (Electric Vehicles)- Course Structures and Syllabus**
- **B.Tech Minors (Sustainable Energy)- Course Structures and Syllabus**

The above course structures and syllabi were approved for implementation from the academic year **2025–2026** under the **R24 Regulations**.

Resolutions:

- The members appreciated the Chairperson for conducting the Board of Studies (BoS) meetings in a timely manner and for taking academic decisions in accordance with the guidelines and regulations of the UGC and JNTU-GV, Vizianagaram.
- The members expressed satisfaction over the systematic planning, curriculum development, and effective implementation of academic **reforms under the R24 Regulations**, ensuring alignment with institutional goals, industry requirements, and emerging technologies.
- The members commended the department for proactively framing and implementing course structures and **syllabi in line with NEP 2020, academic quality standards, and (OBE) outcome-based education** practices for the benefit of students.
- Members are appreciated to Chairperson timely conducted BOS meetings and take decisions as per UGC and INU-GV.

Item 3:

- **To discuss, review, and approve the proposed Curriculum for B.Tech. Electrical and Electronics Engineering – III & IV Year (I & II Semesters), effective from the academic year 2026–2027 and Curriculum Components.**
  - III & IV B.Tech (I & II Semester) Curriculum
  - Curriculum Components.

Members Suggestions:

- The Chairperson presented and explained the proposed R24 curriculum and course structures for the following B. Tech programs for II & IV B. Tech, I & II Semesters, to be implemented from the Academic Year 2026-2027:

- The Chairperson explained to the Board the salient features of the proposed R24 B. Tech course structures, highlighting the inclusion of five Professional Electives, four Open Electives, five Skill-Oriented Courses, internships, project work, and audit courses such as Journal Paper Writing, aimed at strengthening students' technical expertise, research aptitude, innovation, interdisciplinary learning, and employability skills.
- The Chairperson further emphasized that the proposed curriculum was designed in alignment with **NEP-2020**, industry requirements, emerging technologies, and **Outcome-Based Education (OBE)** principles to ensure holistic academic development and career readiness of students.
- The members expressed satisfaction with the **III and IV B. Tech EEE** course structure and appreciated its overall design and alignment with academic and industry requirements.

The members suggested the following revisions to the **III & IV B. Tech EEE** course structure and Syllabus.

- The members are suggested make **Renewable Energy Sources** and **Renewable Energy Sources Lab** as Professional Core and **IoT Applications in Electrical Engineering** Subject as Professional Elective and **IoT Applications in Electrical Engineering Lab to Skill Course.**
- The members are suggested to Change **Analysis and Operation of Power Systems** to two different subjects as **Power System Analysis** and **Power system Operation and Control** as it is useful for GATE Preparation.
- The members are suggested to Shift **Electric Mobility Systems** Subject to Professional Elective and **Electric Mobility Systems Lab** as Skill Course.
- The members suggested shifting the subjects **Electrical Machine Design** and **Advanced Control Systems** from **Professional Elective–III** to **Professional Elective–I**, as there is a significant gap between the study of the fundamental **Electrical Machines** and **Control Systems** courses in the second year and these advanced subjects. It was also recommended to replace these subjects in **Professional Elective–III** with **Programmable Logic Controllers** and **IoT Applications in Electrical Engineering**.
- The Chairperson presented and elaborated on the **program-wise and component-wise course structure** of the R24 curriculum, explaining the rationale behind the allocation of credits to various course components in accordance with **APSCHE recommendations, AICTE Model curriculum, JNTU-GV (R23) regulations, and institutional**

been placed under **Professional Elective–III** in **IV B.Tech I Semester**, and **"IoT Applications in Electrical Engineering Lab"** has been introduced as a **Skill Course** in **III B.Tech II Semester**.

- As per the suggestions of the BoS Members, the course titled **"Analysis and Operation of Power Systems"** has been split into two separate **Professional Core** subjects: **"Power System Analysis"** in **III B.Tech II Semester** and **"Power System Operation and Control"** in **IV B.Tech I Semester**.
- As per the suggestions of the BoS Members, the course titled **"Electric Mobility Systems"** has been shifted from **Professional Core** to **Professional Elective–IV**, and **"Electric Mobility Systems Lab"** has been introduced as a **Skill Course**.
- As per the suggestions of the BoS Members, the subjects **"Electrical Machine Design"** and **"Advanced Control Systems"** have been shifted from **Professional Elective–III** to **Professional Elective–I**. In their place, **"Programmable Logic Controllers"** and **"IoT Applications in Electrical Engineering"** have been introduced under **Professional Elective–III**.
- The BoS resolved to approve the revised course structure for III & IV B. Tech EEE incorporating the above modifications and recommendations, for implementation from the Academic Year 2026-2027.
- The members thoroughly reviewed the R24 program-wise and component-wise course structures of the B. Tech EEE, program and appreciated the systematic distribution of credits across various course components.
- The members expressed satisfaction that the proposed curriculum aligns with AICTE, APSCHE, JNTU-GV, and NEP-2020 guidelines, while maintaining flexibility for multidisciplinary learning, skill enhancement, internships, and research orientation.
- The members appreciated the emphasis given to Professional Core Courses, Skill-Oriented Courses, Program Electives, Open Electives, internships, and project work, which strengthen students' employability, innovation, and industry readiness.
- After detailed deliberations, the members approved the proposed R24 program-wise and component-wise course structures for the above B. Tech programs for implementation from the Academic Year 2026–2027, subject to incorporation of the suggestions and recommendations made during the meeting.

Item 4:

To discuss and finalize the syllabus (R24) for III & IV B. Tech – I & II Semesters B. Tech in Electrical and Electronics Engineering (EEE) Program. The subjects include:

1) **Professional Core Courses**

1. Power Electronics (R24EEPC13)
2. Renewable Energy Systems (R24EEPC14)
3. Power Electronics Lab (R24EEPC15)
4. Renewable Energy Systems Lab (R24EEPC16)
5. Power System Analysis (R24EEPC17)
6. Electrical Measurements and Instrumentation (R24EEPC18)
7. Electrical Measurements and Instrumentation Lab (R24EEPC19)
8. Power Systems Lab (R24EEPC20)
9. Power System Operation and Control (R24EEPC21)
10. Power System Simulation Lab (R24EEPC22)

1) **Professional Elective-I**

1. Electrical Machine Design (R24EEPE01)
2. Advanced Control Systems (R24EEPE02)
3. AI Techniques in Electrical Engineering(R24EEPE03)
4. Utilization of Electrical Energy (R24EEPE04)
5. 12 Week MOOC Swayam /NPTEL Course recommended by the BoS (R24EEPE05)

2) **Professional Elective-II**

1. Machine Learning & Deep Learning and Its Applications (R24EEPE06)
2. Switch Gear & Protection (R24EEPE07)
3. Power Semiconductor Drives (R24EEPE08)
4. High Voltage Engineering(R24EEPE09)
5. 12 Week MOOC Swayam/NPTEL Course recommended by the BoS (R24EEPE10)

3) **Professional Elective-III**

1. Programmable Logic Controllers (R24EEPE11)
2. Flexible AC Transmission Systems (R24EEPE12)
3. IoT Applications in Electrical Engineering (R24EEPE13)
4. VLSI Technology (R24EEPE14)

5. 12 Week MOOC Swayam/NPTEL Course recommended by the BoS (R24EEPE15)

4) **Professional Elective-IV**

1. Special Electrical Machines (R24EEPE16)
2. Soft Computing Techniques in Electrical Engineering (R24EEPE17)
3. Electric Mobility Systems (R24EEPE18)
4. Power Quality (R24EEPE19)
5. 12 Week MOOC Swayam/NPTEL Course recommended by the BoS (R24EEPE20)

5) **Professional Elective-V**

1. Hybrid Electric Vehicles (R24EEPE21)
2. HVDC Transmission (R24EEPE22)
3. Smart Grid Technologies (R24EEPE23)
4. Electrical Distribution Systems (R24EEPE24)
5. 12 Week MOOC Swayam/NPTEL Course recommended by the BoS (R24EEPE25)

1) **Open Elective-I (Offered to other Departments)**

1. Industrial Automation (R24EEOE01)
2. Electrical Design, Estimation and Costing (R24EEOE02)
3. Concepts of Renewable Energy Sources (R24EEOE03)
4. Basics of Control Systems (R24EEOE04)
5. Fundamentals of Power Systems (R24EEOE05)

2) **Open Elective-II (Offered to other Departments)**

1. Basics of Electrical Machines (R24EEOE06)
2. Fundamentals of Electrical Measurements and Instrumentation (R24EEOE07)
3. Applications of Electrical Energy (R24EEOE08)
4. Fundamentals of Utilization of Electrical Energy (R24EEOE09)
5. Electrical Safety (R24EEOE10)

3) **Open Elective-III (Offered to other Departments)**

1. Energy Auditing and Management (R24EEOE11)
2. Fundamentals of Power Electronics (R24EEOE12)
3. Optimization Techniques (R24EEOE13)
4. Electrical Wiring Estimation and Costing (R24EEOE14)

5. Instrumentation (R24EEOE15)

4) Open Elective-IV (Offered to other Departments)

1. Concepts of Smart Grid Technologies(R24EEOE16)
2. Fundamentals Electric Vehicles (R24EEOE17)
3. IoT in Energy Systems (R24EEOE18)
4. Concepts of Power Quality (R24EEOE19)
5. Concepts of Programmable Logic Controllers (R24EEOE20)

1) Skill Courses

1. Design of Electrical Systems using Auto-CAD Lab (R24EESC01)
2. IoT Applications in Electrical Engineering Lab (R24EESC02)
3. Electric Mobility Systems Lab (R24EESC03)

Members Suggestions:

- The members recommended incorporating application-oriented content in every unit of the "Power Electronics" course to enhance students' understanding of the principles and applications of the "Electrical Drives" subject.
- The members suggested renaming the **"Solar Power System Lab"** as **"Renewable Energy Sources Lab"** and enriching the course by including experiments on **wind energy** and **battery energy storage systems experiments**.
- The Chairperson informed the members that the expert faculty had prepared the syllabus in accordance with JNTU-GV guidelines and that all course-wise syllabi were approved during the 4th Internal BOS meeting.
- The members expressed satisfaction with all the course-wise syllabi prepared by the department.

Resolutions:

- As per the suggestions of the BoS Members, relevant applications have been incorporated into each unit and the self-learning topics of the **"Power Electronics"** course to enhance practical understanding and industry relevance.
- As per the suggestions of the BoS Members, the **"Solar Power System Lab"** has been renamed as the **"Renewable Energy Lab"**, and experiments related to **wind energy systems** and **battery energy storage systems** have been incorporated into the laboratory curriculum.

- All the suggestions made by the members were incorporated into the course-wise syllabus, and the Board **approved the III & IV B. Tech-CSE (Data Science) I & II Semester syllabus**, including Professional Core Courses, Professional Elective Courses, Open Elective Courses, Internships, and Project Work.

Item 5:

To discuss the implementation of Electric Vehicles Courses for Honors Program as per R24 Guidelines in the Academic Year 2026-2027.

Members Suggestions:

- The Chairperson presented the proposed implementation of the Electric Vehicles courses under the Honors Program, in line with the R24 Guidelines, for the Academic Year 2026–2027.
- The members of the Board of Studies recommended the introduction of the B.Tech Honors program in Electric Vehicles with effect from the Academic Year 2026–2027 onwards.
- The Chairperson informed the members that, in the proposed course structure for the Academic Year 2026–2027, Professional Elective-I & II (PE-I & II) and Open Elective-I & II (OE-I & II) courses are included in the III Year I & II Semesters. **If students request to pursue these courses through NPTEL**, permission may be granted in accordance with the R24 guidelines and institutional norms.

Resolutions:

- The BOS **granted permission to the HoD and Chairperson** to select suitable NPTEL courses offered during the **July–October 2026 or January–April 2027 sessions**, provided such courses are not covered in the existing course structure and align with students' academic requirements.
- The BOS reviewed the proposal and unanimously approved the implementation of NPTEL courses for the B. Tech-EEE program in the Academic Year 2026–2027, based on students' requirements. Eligible students are permitted to pursue Professional Elective (PE) and Open Elective (OE) courses through NPTEL with credit transfer provisions as per the R24 guidelines.

Item 6:

To discuss the implementation of NPTEL Courses for III-I and III-II Professional Elective/ Open Elective Courses after approval of the Academic Council.

Members Suggestions:

- The Chairman informed the members that credit transfer provisions may be made applicable to all Professional Elective (PE) and Open Elective (OE) courses, provided such courses are not repeated in the existing course structure. It was further informed that necessary permission will be sought from the Academic Council for implementation.

Resolutions:

- The BOS proposed that all Professional Elective (PE) (Five Courses) and Open Elective (OE) (Four courses) courses may be implemented through **credit transfer using NPTEL, subject to the condition that the courses are not duplicated in the existing curriculum.** The proposal shall be forwarded to the Academic Council for approval.

Item 7:

To discuss the progress of the Department of Electrical and Electronics (EEE) during the Academic Year 2025-2026.

Members Suggestions:

- The Department of Electrical and Electronics Engineering **successfully conducted two Workshops** to enhance students' problem-solving abilities, innovation, teamwork, and technical competencies.
- During the Academic Year 2025–2026, **a total of 61 IV B. Tech students successfully** underwent internships through reputed organization such as CSC, thereby strengthening their practical knowledge and industry exposure.
- 16 batches **students successfully published research papers in reputed journals**, reflecting the department's commitment toward research, innovation, and academic excellence.
- **47 students successfully completed NPTEL courses**, demonstrating the department's commitment to promoting **self-learning, online.**
- **42** students were placed in various reputed companies such as Premier Energies, Thermogroup, MEDHA Servo Drives and others, highlighting the department's consistent efforts in training and placement activities.

Resolutions:

- The Chairperson presented a comprehensive report on the progress and achievements of the Department of Electrical and Electronics Engineering during the Academic Year 2025–

2026, covering academic performance, research publications, faculty development programs, internships, student projects, industry collaborations, placements, and co-curricular activities.

- **After detailed discussion,** the BoS members appreciated the department's progress and resolved to continue strengthening academic, research, and industry-oriented initiatives for the overall development of students and faculty.

Item 8:

To discuss and suggest Teaching Learning Methodology, Co-Curricular and Extra-Curricular activities, Internships, FDPs for the academic year 2026-2027.

Members Suggestions:

- Members suggested adopting innovative teaching-learning methodologies such as project-based learning, experiential learning, flipped classrooms, case study-based teaching, and outcome-based education practices to enhance students' understanding and practical exposure.
- The BOS members recommended strengthening the use of **ICT-enabled teaching tools**, including NPTEL, MOOCs, virtual laboratories, coding platforms, and smart classroom technologies for effective content delivery.
- Members advised conducting regular hackathons, technical quizzes, workshops, seminars, and guest lectures to improve students' technical competencies and problem-solving skills.
- It was suggested to encourage students to actively participate in co-curricular and extra-curricular activities, including technical clubs, innovation activities, sports, cultural events, and community service programs for holistic development.
- The BOS advised the department to establish stronger **industry-academia collaborations** to facilitate internships, industrial visits, expert talks, and placement-oriented training.

Resolutions:

- The BOS approved the implementation of innovative teaching-learning methodologies, ICT-enabled learning, and project-based learning approaches for the academic year 2026–2027.
- It was resolved to organize Faculty Development Programs (FDPs), workshops, and seminars for faculty members and students, with emphasis on research, innovation, and emerging technologies.

Item 9:

To discuss any other academic matters with the permission of the Chair.

Members' Suggestions:

- Members suggested strengthening the student mentoring system to provide academic guidance, career counselling, and personal support for improving student performance and well-being.
- The BOS recommended encouraging students to participate in **NPTEL, SWAYAM, MOOCs, coding platforms, and professional certification programs** to enhance technical knowledge and employability skills.
- Members advised focusing on **research culture, innovation, and interdisciplinary projects**, encouraging both faculty and students to publish quality research papers and apply for funded projects.

Resolution:

- Members expressed satisfaction with the academic activities conducted by the Department of Electrical and Electronics Engineering, including teaching-learning processes, co-curricular and extra-curricular activities, internships, training programs, research initiatives, and student development activities carried out during the academic year.
- The Board resolved that the department shall take proactive measures to implement the above recommendations and strengthen student placement outcomes through structured and sustained efforts.

Item 10:

Any miscellaneous issues.

Members' Suggestions:

- Members emphasized the importance of conducting periodic reviews of the curriculum and syllabus to ensure alignment with emerging technologies and the latest AICTE/UGC guidelines.
- Members emphasized the department should increase the frequency of guest lectures, seminars, webinars, and industry expert talks to help bridge the gap between academic content and industry expectations.

Resolution:

- The Board agreed on the necessity for **continuous curriculum review** and recommended that such reviews be scheduled systematically to keep the programs relevant and future-focused.
- The department was advised to **organize more academic-industry engagement activities**, including expert sessions and knowledge-sharing forums, to enhance students' exposure to real-world industrial practices.
- The Chairperson informed the Board that the R24 Regulations, along with the revised course structure and syllabus, are to be implemented for students admitted in 2024–2025, 2025–2026 and 2026-2027 batches.
- Members concurred with this implementation plan and recommended that it be **forwarded for ratification in the forthcoming Academic Council Meeting**.

Attendance Sheet:

S.No.	Name of the Member & Affiliation	Signature
1	**Prof. K. Sri Kumar** Professor, Dept. of EEE Jawaharlal Nehru Technological University, Gurajada-Vizianagaram (JNTU-GV).	Approved through mail on 17/06/2026
2	**Dr P. Chandra Shekhar** Associate Professor School of Electrical and Computer Sciences, Indian Institute of Technology (IIT), Bhubaneswar	Approved through mail on 19/06/2026
3	**Dr P. Sankar** Assistant Professor, Department of Electrical Engineering, National Institute of Technology (NIT), Tadepalligudem. A.P.	Approved through mail on 16/06/2026
4	**Sri. M Dharma Raju** D.E., Technical, APEPDCL, Visakhapatnam	Approved through mail on 17/06/2026.
5	**Sri. Y.L.V.Santosh Kumar** HSE Manager, L&T Hydrocarbon, Visakhapatnam.	Approved through mail on 16/06/2026

6	**Dr.Gandi Satyanarayana** Dean-Academics & Professor of CSE Avanthi Institute of Engineering and Technology (Autonomous)	
6	**All the Department Faculty**	
7	**Dr.R. Sasidhar.** Associate Professor & Head Chairperson, BoS Avanthi Institute of Engineering and Technology (Autonomous)	

All Other Dept Members

1.
2.
3. B.
4. G.R.L
5. K.
6.
7.
8.
9.
10. U.V.Lakshmi
11.
12.
13. D.Shiva

Chairperson
Board of Studies (EEE)

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