



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Minutes of the 2nd Board of Studies (BOS)

2nd Board of Studies Meeting in the Department of Electrical and Electronics Engineering

Mode: Through Hybrid Mode (Physical Presence at Conference Hall and online Mode Zoom Link)

Topic: 2nd Board of Studies Meeting-Program Department of Electrical and Electronics Engineering

Date and Time: May, 21, 2025, 03:30 PM to 5 PM, India

Join Zoom Meeting

<https://us06web.zoom.us/j/4280829918?pwd=Q5YbPJ6ATneqFUoUAlxZe6Rgd4mkH3.1&omn=87494092328>

Meeting ID: 428 082 9918

Passcode: AVEV

Members Present:

- 1. Dr. K. Sri Kumar**
Professor, Department of Electrical and Electronics Engineering, University College of Engineering -Vizianagaram, JNTU-GV, Vizianagaram.
- 2. Dr. B. Kalyan Kumar**
Professor, Department of Electrical Engineering,
Indian Institute of Technology (IIT), Madras.
- 3. Dr P. Chandra Shekhar**
Assistant Professor, School of Electrical and Computer Sciences
Indian Institute of Technology (IIT), Bhubaneswar.
- 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 BOS Chairperson.

Resolutions:

- **Dr.R.Sasidhar**, Chairperson, 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.
- **The Dean-Academics highlighted that the syllabus must align with Outcome-Based Education (OBE), which is a mandatory requirement in view of the revised NAAC accreditation framework and the NBA.**
- **With the consent of the BOS members, the Chairperson informed that the implementation of the R24 Curriculum and Syllabus for the AY: 2024–2025 admitted batch I Year, I and II Semesters was successfully carried out.**
- **The Chairperson presented the Proposed Course Structure and Syllabus for II B.Tech, EEE for I and II Semesters, B.Tech Honours, Minors, II M.Tech (Power Electronics) Course Structure and Syllabus for I and II Semesters and II M.Tech (Power Systems) Course Structure and Syllabus for I and II Semesters. He emphasized the need to strengthen industry-academia collaboration in designing a curriculum that is contemporary, holistic, and career-oriented, ensuring that it addresses current trends and employer expectations.**

Item 2:

To discuss, review, and approve the proposed curriculum for B.Tech. Electrical and Electronics Engineering – II Year (I & II Semesters), effective from the academic year 2025–2026:

- II B.Tech I Semester Course Structure
- II B.Tech II Semester Course Structure

Members Suggestions:

- The members are suggested changing course title A.C. Machines to Induction and Synchronous Machines and A.C.Machines Lab to “Induction and Synchronous Machines Lab”.
- The members are **carefully reviewed the proposed curriculum** for both I and II semesters. They **expressed satisfaction** with the overall design, relevance, and academic rigor of the course structures subjected to above Modification.



Resolutions:

- As per the suggestions of the Board members, the course title "A.C. Machines" offered in II B.Tech II Semester is modified to "Induction and Synchronous Machines", and the corresponding laboratory course title "A.C. Machines Lab" is changed to "Induction and Synchronous Machines Lab".
- The Board unanimously approved the revised course structures for II B.Tech I and II Semesters, which shall be implemented from the Academic Year 2025–2026 onwards.

Item 3:

To discuss, review, and approve the proposed curriculum for M.Tech. Power Electronics-II Year (I & II Semesters), effective from the academic year 2025–2026:

- II M.Tech I-Semester Course Structure
- II M.Tech II-Semester Course Structure

Members Suggestions:

- The Chairperson informed the Board that the M.Tech in Power Electronics program has been officially applied for closure from the Academic Year 2025–2026 due to consistently low admissions. The closure has been approved by AICTE.
- The members suggested modifying the course title "Digital Signal Processing Controlled Drives" to "Digital Signal Processors Controlled Drives" for better clarity and accuracy.
- The members carefully reviewed the proposed curriculum for both I and II Semesters of II M.Tech. They expressed satisfaction with the overall design, relevance, and academic rigor of the course structure, subject to the above modification.

Resolutions:

- The Board unanimously approved the revised course structures for II M.Tech Power Electronics I and II Semesters, incorporating the suggested modification. These shall be implemented from the Academic Year 2025–2026 onwards.

Item 4:

To discuss, review, and approve the proposed curriculum for M.Tech. Power Systems II Year (I & II Semesters), effective from the academic year 2025–2026:

- II M.Tech I-Semester Course Structure
- II M.Tech II-Semester Course Structure

Members Suggestions:

- The members of the Board of Studies carefully reviewed the proposed curriculum for



both semesters. They expressed satisfaction with the overall design, relevance, and academic rigor of the course structures.

Resolutions:

- The Board unanimously approved the proposed course structures for II M.Tech I and II Semesters for implementation from the Academic Year 2025–2026, without any modifications.

Item 5:

To review and approve the Course structure as per Regulations-R24 and Guidelines for the Honors Programme: Electric Vehicles for students admitted from the academic year 2024-2025 onwards.

Members Suggestions:

- The Chairperson presented the proposed course structure for the Honors Programme in Electric Vehicles, comprising 6 courses including 2 MOOC courses totaling 18 credits.
- The Dean–Academics clarified that the Honors and Minor programmes are designed as per the AICTE Handbook and aligned with the JNTU-GV Guidelines issued under Ref: JNTUGV/DAP/Guidelines for B.Tech Honors/2025, dated 20-02-2025.
- Members of the Board of Studies recommended expanding the program to include 8 to 10 courses to provide greater flexibility and academic enrichment for students.

Resolutions:

- Based on the recommendations of the members, 4 additional courses have been incorporated into the existing 6-course structure, expanding the total number of courses to 10 for the Honors Programme.
- The Board unanimously approved the revised course structure for the B.Tech Honors Programme in Electric Vehicles, for implementation from the Academic Year 2025–2026, subject to the incorporation of the additional courses.

Item 6:

To review and approve the Guidelines for the Minor Programme: Sustainable Energy (Regulations – R24) for students admitted from the academic year 2024-2025 onwards.

Members Suggestions:

- The members of the Board of Studies recommended that the Minor Programme in Sustainable Energy should include 8 to 10 courses to enhance academic flexibility and



provide students with broader learning opportunities.

Resolutions:

- Based on the recommendations of the members, **4 additional courses** have been incorporated into the existing **4-course structure**, making a total of **8 courses** under the Minor Programme.
- The Board unanimously **approved the course structure and guidelines** for the **B.Tech Minor Programme in Sustainable Energy**, for **implementation from the Academic Year 2025–2026**, subject to the incorporation of the additional courses.

Item 7:

To discuss and finalize the syllabus for II B.Tech I Semester (Electrical and Electronics Engineering), for the following courses:

- i. Electrical Circuit Analysis-II (R24EEPC03)
- ii. DC Machines & Transformers (R24EEPC04)
- iii. Electromagnetic Field Theory (R24EEPC05)
- iv. Electrical Circuit Simulation Lab (R24EEPC06)
- v. DC Machines & Transformers Lab (R24EEPC07)

Members Suggestions:

- Members emphasized the importance of aligning each subject syllabus with the prescribed textbooks and reference materials for better academic consistency.
- In the course DC Machines & Transformers (R24EEPC04):
 - For **Unit-I**, members suggested to change the Chapter name **DC machines** to **“Introduction to DC machines”**. They also suggested incorporating Types of DC Machines.
 - For **Unit-III**, members suggested incorporating new topic **“Ideal Transformer”** to enhance students for better understanding.
- In the course Electromagnetic Field Theory (R24EEPC05):
 - For **Unit-I & V**, members identified duplications in Chapter Names and Suggested to remove Duplications.
 - Members Suggested after careful review, it is recommended that certain chapter topics be removed to focus on essential concepts that better align with learning objectives.
- In the course DC Machines & Transformers Lab (R24EEPC06):



- Members proposed to change the sequence of experiments in the list of Experiments be revised to better align with the theoretical coursework and optimize student learning outcomes.
- In the course Electrical Circuit Simulation Lab (R24EEPC07):
 - Members Suggested to incorporate High Pass and Band- Pass filters be elaborated and certain experiments be combined to enhance efficiency and provide a more cohesive learning experience.

Resolutions:

- The **Chairperson** assured the Board that the **suggested modifications have been duly incorporated** into the syllabi.
- Accordingly, the Board **approved the finalized syllabi** for all the above-listed **II B.Tech I Semester courses, effective from the Academic Year 2025–2026, subject to the incorporation of the aforementioned modifications and improvements.**

Item 8:

To discuss and finalize the syllabus for II B.Tech II Semester (Electrical and Electronics Engineering), for the following courses:

- i. Electric Power Generation, Transmission and Distribution (R24EEPC08)
- ii. Induction and Synchronous Machines (R24EEPC09)
- iii. Control Systems (R24EEPC10)
- iv. Control Systems Lab (R24EEPC11)
- v. Induction and Synchronous Machines Lab (R24EEPC12)

Members Suggestions:

- Members emphasized the importance of aligning each subject syllabus with the prescribed textbooks and reference materials for better academic consistency.
- In the course **Electric Power Generation, Transmission and Distribution (R24EEPC08):**
 - For **Unit-I**, Considering the course rigor and student workload, it is proposed that the number of hours be reduced to provide a more manageable and focused learning experience.
- In the course **Induction and Synchronous Machines (R24EEPC09):**
 - For **Unit-I**, members suggested to change the Chapter name **3 Phase Induction Motors** to **“Introduction to 3-Phase Induction Motors”**.
 - For **Unit-IV**, members suggested incorporating new topic **“Slip Test”** to enhance students understanding.



- In the course **Control Systems (R24EEPC10)**:
 - For **Unit-I**, members suggested to change the Chapter name **Mathematical Modeling of Control Systems** to "**Mathematical Modeling of Electrical and Mechanical Systems**".
 - For **Unit-V**, members suggested incorporate new topic "**Eigen values and Eigen Vectors**" to enhance students understanding.
- In the course **Induction and Synchronous Machines Lab (R24EEPC12)**:
 - For **Experiment-II**, members suggested to change the Name of the experiment "**No-load & Blocked Rotor tests of three phase induction motor**" to "**Circle Diagram of three phase induction motor**".

Resolutions:

- The Chairperson assured the Board that the suggested modifications have been duly incorporated into the syllabi.
- Accordingly, the Board approved the finalized syllabi for all the above-listed II B.Tech II Semester courses, effective from the Academic Year 2025–2026, subject to the incorporation of the aforementioned modifications and improvements.

Item 9:

To discuss and finalize the Syllabus of II M.Tech I Semester (Power Electronics) for the following:

- i. Digital Signal Processors Controlled Drives (MTPE2101)
- ii. Smart Grid Technologies (MTPE2102)
- iii. Modeling & Simulation of Power Electronic Systems (MTPE2103)
- iv. Renewable Energy Sources (MTPE2106)
- v. Fundamentals of Electric Vehicles (MTPE2107)
- vi. Concepts of Power System Engineering (MTPE2108)
- vii. Applications of Power Converters (MTPE2109)

Members Suggestions:

- Members emphasized the importance of aligning each subject syllabus with the prescribed textbooks and reference materials for better academic consistency.
- In the course Applications of Power Converters (MTPE2109):
 - For **Unit-V**, members suggested to change the Chapter name **Chemical Energy Sources** to "**Bi-directional DC-DC (BDC) converters**".



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- In the course Concepts of Power System Engineering (MTPE2108):
 - Members suggested to change the text book Principles of Power System by V.K.Mehata - Rohit Mehata - S.Chand Publishers to Power Systems Engineering by Stevenson or Prabha Kundur be upgraded to a more advanced level to better challenge students and enhance their understanding.

Resolutions:

- The Board of Studies **unanimously approved** the finalized syllabi for all the above-listed **II M.Tech I Semester courses, effective from the Academic Year 2025–2026**, subject to the incorporation of the above-mentioned modifications and improvements.

Item 10:

To discuss and finalize the Syllabus of II M.Tech I Semester (Power Systems) for the following:

- i. Energy Audit Conservation & Management (MTPS2101)
- ii. Smart Grid Technologies (MTPS2102)
- iii. Power Quality and Custom Power Devices (MTPS2103)
- iv. Renewable Energy Sources (MTPS2106)
- v. Battery Management Systems and Charging Stations (MTPS2107)
- vi. Concepts of Power System Engineering (MTPS2108)
- vii. Applications of Power Converters (MTPS2109)

Members Suggestions:

- Members emphasized the importance of aligning each subject syllabus with the prescribed textbooks and reference materials for better academic consistency.
- In the course Applications of Power Converters (MTPE2104):
 - For **Unit-V**, members suggested to change the Chapter name **Chemical Energy Sources** to **"Bi-directional DC-DC (BDC) converters"**.
- In the course Concepts of Power System Engineering (MTPE2108):
 - Members suggested to change the text book Principles of Power System by V.K.Mehata - Rohit Mehata - S.Chand Publishers to Power Systems Engineering by Stevenson or Prabha Kundur be upgraded to a more advanced level to better challenge students and enhance their understanding.

Resolutions:

- The Board of Studies **unanimously approved** the finalized syllabi for all the above-listed



II M.Tech I Semester courses, effective from the Academic Year 2025–2026, subject to the incorporation of the above-mentioned modifications and improvements.

Item 11:

To discuss and finalize the syllabus for the Honors Programme in Electric Vehicles:

- i. Electric Vehicle System Architecture (R24EVT201)
- ii. Design and Simulation of Motors for Electric Vehicle Application (R24EVT202)
- iii. Energy Storage Systems for Electric Vehicle Applications (R24EVT303)
- iv. Charging Station System Design (R24EVT304)
- v. Power Electronics in Electric Vehicles (R24EVT305)
- vi. Motor Drives and Control Systems (R24EVT306)
- vii. Internet of Things for Electric Vehicle Application (R24EVT407)
- viii. Artificial Intelligence for Electric Vehicle Application (R24EVT408)

Members Suggestions:

- The members of the Board of Studies **carefully reviewed the proposed curriculum** for both semesters. They **expressed satisfaction** with the overall design, relevance, and academic rigor of the course structures.

Resolutions:

- The Board of Studies **unanimously approved** the finalized syllabi for all the above-listed **B .Tech Honours courses, effective from the Academic Year 2025–2026**, without any modifications.

Item 12:

To discuss and finalize the syllabus for the Minor Programme in Sustainable Energy:

- i. Sustainable Energy Engineering (R24SET201)
- ii. Power Plant Engineering (R24SET201)
- iii. Hydrogen Generation and Storage (R24SET303)
- iv. Energy Resources, Economics and Environment (R24SET304)
- v. Electrochemical Energy Storage Systems (R24SET305)
- vi. Renewable Sources of Energy (R24SET306)
- vii. Solar Energy Systems (R24SET407)
- viii. Control and Integration of Renewable Energy Sources (R24SET408)

Members Suggestions:



- The members of the Board of Studies **carefully reviewed the proposed curriculum** for both semesters. They **expressed satisfaction** with the overall design, relevance, and academic rigor of the course structures.

Resolutions:

- The Board of Studies **unanimously approved** the finalized syllabi for all the above-listed B .Tech Minors courses, **effective from the Academic Year 2025–2026**, without any modifications.

Item 13:

To suggest improvements in Teaching-Learning Methodologies, and finalize Co Curricular and Extra-Curricular activities for the academic year: 2025–2026.

Members Suggestions:

- Members discussed and suggested to implement Co-curricular activities like guest Lectures, Tech fest, Workshops, Industrial Visits for the Academic Year 2024-2025.
- Members discussed and suggested to have Extra-curricular activities for the Academic year 2025-2026 to Sports meet yearly twice.
- For knowledge exploration advised to have Industrial visit for the students at least once in an academic year.

Resolutions:

- Members advised that faculty has to take their own & independent methodology for the benefit of Student. And also advised different teaching Learning Methodology like PPT's, Video Based Lectures, Assignments, each one teach one, Lab protocols, Project Show case.
- Ro encourage the students to do Internships.

Item 14:

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

Resolutions:

- No other issues.

Item 15:

Any Miscellaneous issues.

- Members emphasized the importance of **periodic review of curriculum and syllabus** in alignment with emerging technologies and **revised AICTE/UGC guidelines**.
- It was suggested to **organize more guest lectures, seminars, webinars, and industry expert talks** to bridge the gap between academia and industry expectations.



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Resolutions:

- No other issues

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).	
2	Dr. B. Kalyan Kumar Professor Dept. of Electrical Engineering Indian Institute of Technology (IIT), Madras	Approved through mail on 03/06/2025.
3	Dr P. Chandra Shekhar Assistant Professor School of Electrical and Computer Sciences, Indian Institute of Technology (IIT), Bhubaneswar	Approved through mail on 05/06/2025
4	Sri. M Dharma Raju D.E., Technical, APEPDCL, Visakhapatnam	Approved through mail on 03/06/2025
5	Sri. Y.L.V.Santosh Kumar HSE Manager, L&T Hydrocarbon, Visakhapatnam.	Approved through mail on 04/06/2025
6	Dr.Gandi Satyanarayana Dean-Academics Avanthi Institute of Engineering and technology (Autonomous)	
6	All the Department Faculty	—
7	Dr.R. Sasidhar. Associate Professor & Head Chairperson-BoS Department of EEE, AIET (A)	

All Other Dept Members



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Chairperson

Board of Studies (EEE)

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