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NAAC "A+" Accredited Institute

Makavarapalem, Narsipatnam (R.D), **Anakapalle** (Dist), Pin-531113 www.avanthienggcollege.ac.in, principal_aiet@yahoo.com, principal@avanthienggcollege.ac.in

Dr.T.Srinivasarao Head and Chairman, BOS Department of electrical and electronics Engineering Phone: +91-08932-222382

Lr.No. AIETM/EEE/BoS2

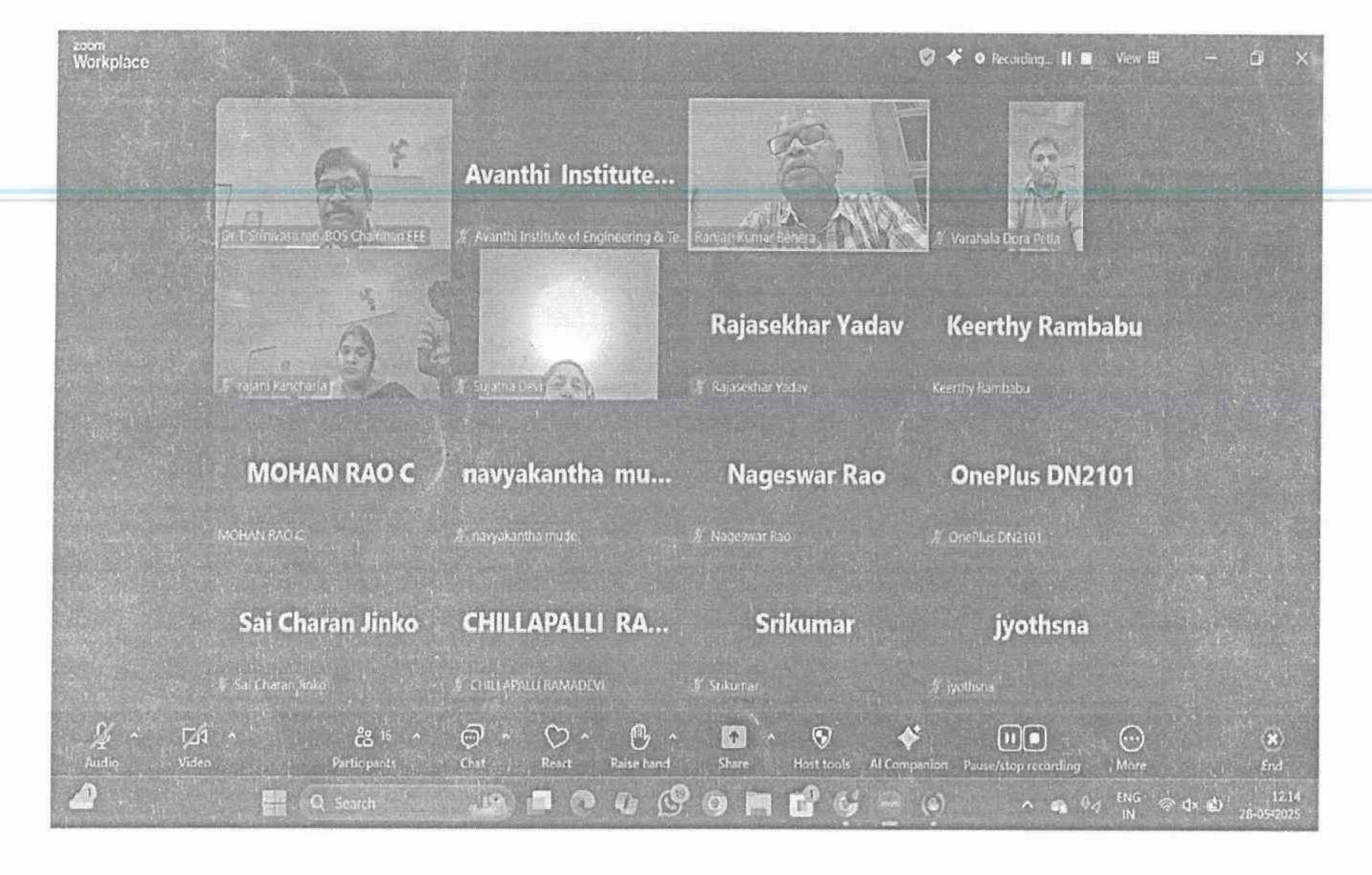
Date: 28.05.2025

MINUTES OF THE BOARD OF STUDIES MEETING HELD ON 28-05-2025 11.00 AM to 12.30 PM

Minutes of the meeting of Board of Studies, Department of Electrical and Electronics Engineering, held 11.00AM to 12.30 PM in our department.

28-05-2025 11.00 AM

Mode: Hybrid Mode



Members Present:

S.No	NAME OF THE MEMBER & AFFILIATION of BOS				
	Dr. K. Sri Kumar				
1	Professor JNTU-GV CEV(A),VZM				
	Expert member nominated by University (JNTU-GV)				
	Prof .Mallikarjuna Rao. Pasumarthi				
2	Professor, Dean TDR-HUB-AU				
2	Andhra university, Visakhapatnam,				
	Expert member nominated by Academic Council				
	Dr. Ranjan Kumar Behera				
3	Associate Professor,				
3	IIT Patna				
	Expert member nominated by Academic Council				
	Sri.M.Nageswara Rao				
4	DGM, NTPC Simhadri, Visakhapatnam				
	Nominated from Industry				
	Sri.K V S Rama chandra Murthy,				
5	Professor, EEE Dept, & Dean (R&D)				
9	Aditya University, Surampalem, Kakinada District.				
	Expert from outside the Autonomous College				
	Sri.Kuppilli . Sai charan				
6	Technical Leader, PV & ESS- South & Central Asia, Jinko solar co Ltd				
	Nominated from Alumini				
7	Dr.C.P.V.N.J.Mohanrao Principal				

8	Dr.T.Srinivasa Rao HOD a BOS	and Professor- Chairperson
9	Dr.D.Ramesh As	ssociate Professor - Member
10	VARAHALA DORA PETLA	Assistant Professor - Member
11	MARRA JYOTHSNA SIVANI	Assistant Professor- Member
12	KANCHARLA RAJANI	Assistant Professor- Member
13	K DURGA RAO	Assistant Professor- Member
14	GAJJI RAJASEKHAR YADAV	Assistant Professor- Member
15	MUDE NAVYA KANTHA	Assistant Professor- Member
16	CHILLA PALLI RAMADEVI	Assistant Professor- Member
17	SEELAM SUJATHA DEVI	Assistant Professor- Member
18	P. SHEERISHA	Assistant Professor- Member

Minutes of the 2nd Board of Studies (BoS) Meeting:

1. Welcome Address

Dr. T. Srinivasarao, Chairman, Board of Studies (EEE), welcomed all BoS members. He appreciated their consistent contributions to curriculum development, syllabus refinement, and alignment with industry and academic standards.

2. Presentation and Review of Curriculum

2.1 Undergraduate Program (B.Tech – EEE) – 2nd Year (I & II Semesters)

- The proposed AVEN curriculum and syllabus were presented, focusing on the key improvements, structural alignment, and course updates.
- A comparative presentation of the proposed AVEN curriculum and JNTUGV syllabus was provided to highlight improvements, structure alignment, and course.
- Power Systems I: Revised for better clarity, sequence, and content depth introduced transmission and mechanical design.
- Electromagnetic Fields (EMF):
 - Proposal to review the course title "Engineering Electro Magnetics".
 - Suggested title change to "Electro Magnetics" if practical applications are not included.
- DC Machines & Transformers:
 - Introduction of a new topic on Electromechanical Principles in Unit I.
- Control Systems:

- o Inclusion of new content on AC Servo Motors.
- Lab syllabus updated with experiments on:
 - AC Servo Motor Characteristics
 - Synchro Transmitter and Receiver
- Laboratory Enhancements:
 - Additional experiments proposed in ECA-I Lab and Control Systems Lab.
 - Updates made to Induction Machines & Synchronous Machines (IM & SM) Lab for sequencing and content enrichment.
- Employability Skill Courses (Credit-Based Audit Courses):
 - Employability Skills I: Competitive Coding (2nd Year I Semester)
 - Employability Skills II: Quantitative Aptitude & Logical Reasoning (2nd Year II Semester)

2.2 Postgraduate Program (M.Tech - Power Systems & Power Electronics)

- Updated syllabi for 3rd and 4th semesters presented as per JNTUGV structure.
- Focus areas included Smart Grid Technologies, Power Quality, Energy Management, AI Techniques, and Industrial Safety.

3. Policy and Administrative Discussions

Dr. C.P.V.N.J. Mohanrao - Principal:

- Explained credit structure and policies for Minor and Honors programs.
- · Clarified NPTEL course equivalency, evaluation standards, and transfer policies.
- Discussed student eligibility criteria for Minor and Honors programs.
- Emphasized alignment with NEP 2020 and AICTE model curriculum.

4. Expert Opinions and Recommendations

Dr. K. Sri Kumar (Professor in EEE Dept.- JNTU-GV)

 Expressed his satisfaction with the proposed syllabus and appreciated the well-structured course design. He commended the department for its efforts in aligning the curriculum with academic standards and industry requirements, ensuring comprehensive coverage of essential topics and contemporary advancements.

Dr. Ranjan Kumar Behera - Professor, IIT Patna:

- Recommended a review of the motor control content included in the Electric Vehicle (EV)related courses to ensure relevance and depth.
- Suggested limiting the number of laboratory experiments to 10, citing that IITs typically include 6–8 well-designed experiments for effective learning outcomes.
- Raised a query regarding the credit allocation and evaluation mechanisms for NPTEL courses, seeking clarity on their integration into the curriculum.
- Appreciated the structured and forward-looking nature of the proposed curriculum revisions, commending the department's proactive approach to modernization.

Prof. Mallikarjuna Rao Pasumarthi - Professor & Dean (R&D), Andhra University:

- Advised retaining the title "Engineering Electromagnetic" only if the course includes sufficient
 practical and application-oriented content.
- Otherwise, recommended renaming the course to "Electromagnetic Field Theory (EMF)" to better reflect its theoretical nature.

Sri K.V.S. Rama Chandra Murthy - Dean (R&D), Aditya University:

- Requested a thorough validation and planning process to ensure the availability of qualified faculty for the newly introduced elective courses.
- Emphasized the need for faculty training and upskilling in emerging subject areas to effectively
 deliver the updated curriculum.
- Recommended formulating a clear student intake strategy for the Minor and Honors programs to maintain quality and manage enrollment effectively.

Sri M. Nageswara Rao - DGM, NTPC Simhadri:

Recommended replacing the topic "Risk Identification" in safety-related courses with HIRA
(Hazard Identification and Risk Assessment) to better align the curriculum with current
industry standards and practices.

Sri Kuppilli Sai Charan (Jinko Solar)

 Expressed appreciation for the department's efforts in modernizing the curriculum to reflect emerging industry standards.

5. Approvals and Resolutions:

The UG and PG courses and syllabus were unanimously approved by all members, with the suggestion to incorporate a few minor corrections.

5.1 UG Program Curriculums (B.Tech – EEE, 2nd Year – AY 2025–2026)

2nd Year - I Semester:

- Electrical Circuit Analysis-II
- DC Machines & Transformers
- Electrical Circuit Analysis-II and Simulation Lab
- DC Machines & Transformers Lab
- Employability Skills I Competitive Coding

2nd Year - II Semester:

- Power Systems-I
- Induction and Synchronous Machines
- Control Systems
- Induction and Synchronous Machines Lab

Employability Skills II – Quantitative Aptitude & Logical Reasoning

SEC Courses:

- Employability Skills I Competitive Coding (2nd Year I Sem)
- Employability Skills II Quantitative Aptitude & Logical Reasoning (2nd Year II Sem)

5.2 Honors Courses Offered by the Department of EEE

(For EEE Students)

- Electric Vehicles and Smart Mobility
- Renewable Energy Systems & Smart Grids
- Embedded Systems & IoT

5.3 Minor Degree Programs by the Department of EEE

(For Non-EEE Students)

- Electrical Systems in Industrial Applications
- Electrical Safety & Erection

5.4 PG Program Curriculum (M.Tech - Power Electronics & Power Systems)

Approved for 2nd Year - I & II Semesters, AY 2025-2026

M. Tech - Power Systems

Program Elective-V:

- Energy Audit, Conservation & Management
- Smart Grid Technologies
- Power Quality and Custom Power Devices

Open Electives:

- Industrial Safety
- Artificial Intelligence Techniques
- Operations Research

M. Tech - Power Electronics

Program Elective-V:

- Digital Signal Processing Controlled Drives
- Smart Grid Technologies
- Modeling & Simulation of Power Electronic Systems

Open Electives:

- Industrial Safety
- Energy Audit, Conservation & Management
- Composite Materials

Dissertation Phase-I and Phase-II are conducted in the first and second semesters of the second year, where students must complete project implementation and participate in regular progress reviews.

Vote of Thanks and Closing Remarks

Dr. C.P.V.N.J. Moahanrao, Principal, and Dr. T. Srinivasarao, BoS Chairman (EEE), extended their sincere thanks to all BoS members for their active participation and valuable inputs. All the suggestions were duly noted and necessary amendments have been incorporated into the final syllabi and course structures.

Next BoS Meeting

The next Board of Studies meeting is tentatively scheduled for March [2026], to finalize the 3rd Year course structure and syllabus for the UG program (B.Tech – EEE).

Yours truly,

Chairperson

Board of Studies (EEE)

S.No	NAME OF THE MEMBER & AFFILIATION of BOS	Signature
	Dr. K. Sri Kumar	
1	Professor JNTU-GV CEV(A),VZM	
	Expert member nominated by University (JNTU-GV)	
	Prof.Mallikarjuna Rao. Pasumarthi	
	Professor, Dean TDR-HUB-AU	WAS THE MANT
2	Andhra university, Visakhapatnam,	ONLINE MODE
	Expert member nominated by Academic Council	
	Dr. Ranjan Kumar Behera	
3	Associate Professor,	DALLINE MADE
	IIT Patna	ONLINE MODE
	Expert member nominated by Academic Council	
	Sri.M.Nageswara Rao	
4	DGM, NTPC Simhadri, Visakhapatnam	ONLINE MODE
	Nominated from Industry	
	Sri.K V S Rama chandra Murthy,	
_	Professor, EEE Dept, & Dean (R&D)	ONLINE MODE
5	Aditya University, Surampalem, Kakinada District.	ONLINE
	Expert from outside the Autonomous College	
	Sri.Kuppilli . Sai charan	
6	Technical Leader, PV & ESS- South & Central Asia, Jinko solar co Ltd	ONLINE MODE
	Nominated from Alumini	
7	Dr.C.P.V.N.J.Mohanrao Principal	Ore
8	Dr.T.Srinivasa Rao HOD and Professor- Chairperson BOS	AT B
9	Dr.D.Ramesh Associate Professor - Member	Vameeh

10	VARAHALA DORA PETLA	Assistant Professor - Member	Odci
11	MARRA JYOTHSNA SIVANI	Assistant Professor- Member	M. Bram'
12	KANCHARLA RAJANI	Assistant Professor- Member	Kilayro.
13	K DURGA RAO	Assistant Professor- Member	Karry ed.
14	GAJJI RAJASEKHAR YADAV	Assistant Professor- Member	L'afallecht.
15	MUDE NAVYA KANTHA	Assistant Professor- Member	M-N
16	CHILLA PALLI RAMADEVI	Assistant Professor- Member	CH. Damole.
17	SEELAM SUJATHA DEVI	Assistant Professor- Member	S. Sujatha
18	P. SHEERISHA	Assistant Professor- Member	B. Strisher

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Regulation: R24

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Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Program: B. Tech- Electrical and Electronics Engineering

II Year I Semester- Course Structure

S. No	Category Course Code Course	Course Title		Hours p	s per Week		
5. 110	Category	Course Code	Course Title	L	T	P	Credits
1	BS	R24BS07	Complex Variables & Numerical Methods	3	0	0	3
2	HS	K / A H N I A	Managerial Economics and Financial Analysis	2	0	0	2
3	PC	R24PC09	Engineering Electromagnetics	3	0	0	3
4	PC	R24PC03	Electrical Circuit Analysis-II	3	0	0	3
5	PC	R24PC04	DC Machines & Transformers	3	0	0	3
6	PC	K/APLIII	Electrical Circuit Analysis-II and Simulation Lab	0	0	3	1.5
7	PC	1 R24PC06	DC Machines & Transformers Lab	0	0	3	15
8	ES	R24HS06	Design Thinking and Innovation	0	1	2	2
9	SEC	R24SC02	Employability Skills I: Competitive coding	0	1	2	2
10	MC	R24MC04	Constitution of India	2	0	0	_
Total	Total			16	02	10	21

Category	Courses	Credits
BS- Basic Sciences Course	1	3
ES-Engineering Science Courses	1	2
HS-Humanities and Management Sciences Courses	1	2
PC-Professional Core Courses	5	12
MC-Mandatory Course	1	0
SEC- Skill Enhancement course	1	2
Total	10	21

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Program: B. Tech- Electrical and Electronics Engineering Regulation: R24

II Year II Semester- Course Structure

G N		Course		Hours per Week				
S. No	Category	Code	Course Title	L	T	P	Credits	
1	HS	R24HS03	Universal Human Values-I Understanding Harmony and Ethical Human Conduct	2	0	0	2	
2	ES	R24ES11	Analog Circuits	3	0	0	3	
3	PC	R24PC07	Power Systems-I	3	0	0	3	
4	PC	R24PC08	Induction and Synchronous Machines	3	0	0	3	
5	PC	R24PC09	Control Systems	3	0	0	3	
6	PC	R24PC10	Induction and Synchronous Machines Lab	0	0	3	1.5	
7	PC	R24PC11	Control Systems Lab	0	0	3	1.5	
8	HS	R24HS04	Employability Skills II Quantitative aptitude & logical reasoning	0	1	2	2	
9	SEC	R24SC01	Python Programming and Industry Readiness	0	1	2	2	
10	MC	R24MC03	Environmental Science	2	0	0	_	
Total				16	02	10	21	

Summer internship 2 months (Mandatory) after second year (to be evaluated during III year I Semester)(community service project)

Category	Courses	Credits
ES-Engineering Science Courses	1	3
HS-Humanities and Management Sciences Courses	2	4
PC-Professional Core Courses	5	12
SEC-Skill Enhancement Course	1	2
MC- Mandatory course	1	0
Total	10	21



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Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Program: M.Tech- POWER SYSTEMS Regulation: R24

III Semester- Course Structure

S.No	Cate	Cate Course	ate Course Course Title	Hours per Week				
5.110	gory	Code	Course Title	L	Т	P	Credits	
1	PE		Program Elective-V i. Energy Audit Conservation & Management ii. Smart Grid Technologies iii. Power Quality And Custom Power Devices	3	0	0	3	
2	OE		Open Elective i. Industrial Safety ii. Artificial Intelligent Techniques iii. Operations Research	3	0	0	3	
3			Dissertation Phase-I (To Be Continued And Evaluated Next Semester)	0	0	20	10	



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Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Program: M.Tech- POWER SYSTEMS Regulation: R24

IV Semester- Course Structure

S. No	Cate	Course	Course Title	Hours per Week		Hours per Week Course Title			
S. No gory	Code	Course Title	L	T	P	Credits			
1			Dissertation phase-II	0	0	32	16		

Category	Courses	Credits
PE-Program Elective Courses	1	3
OE- Open Elective	1	3
Total		

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Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Program: M.Tech- POWER ELECTRONICS Regulation: R24

III Semester- Course Structure

S.No	Category	Course Code	Course Title		Hours p	er Week	
5.110			Course Title	L	Т	P	Credits
1			Program Elective-V				
	PE	R2443PE05.1	i.Digital Signal Processing Controlled Drives				
	PE	R2443PE05.2	ii.Smart Grid Technologies	3	0	0	3
		R2443PE05.3	iii.Modeling & Simulation of Power Electronic Systems				
2	OE		Open Elective				
		R24430E01.1	i. Industrial Safety				
		R24430E01.2	i. Energy Audit, Conservation & Management	3	0	0	3
		R24430E01.3	Composite Materials				
3	DP	R2443DP01	Dissertation Phase-I (To Be Continued And Evaluated Next Semester)	0	0	20	10

Category	Courses	Credits
PE-Program Elective Courses	1	3
OE- Open Elective	1	3
Total	2	6



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Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Program: M.Tech- POWER ELECTRONICS Regulation: R24

IV Semester- Course Structure

S.No	Category	Course	CourseTitle		Hours per Week			
5.110		Code	Course riue	L	Т	P C	Credits	
1	DP	Dissertation	Dissertation phase-II	0	0	32	16	



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College offering B. Tech Honors Degree in the following domains, and the student can take any one of domain to get B.Tech Honors by satisfying eligibility criteria.

S.No	Specialization	Offered By	Honors (For Students)
1	Electrical Vehicles and Smart Mobility	EEE	EEE
2	Renewable Energy Systems & Smart Grids	EEE	EEE
3	Embedded Systems & IoT	EEE	EEE

1. Electrical vehicle's and Smart Mobility

S. No	Subject Code	Year of Study	Subject	L	Т	P	С
1	R24EEEVH201	II-II	Introduction to Electrical Vehicle Technology	3	0	0	3
2	R24EEEVH302	III-I	Special Electrical machines	3	0	0	3
3	R24EEEVH303	III-II	Battery Technologies	3	0	0	3
4	R24EEEVH404	IV-I	Electric Vehicle Engineering	3	0	0	3
5	R24EEEVH405		NPTEL/MOOC Course-I	0	0	0	3
6	R24EEEVH406		NPTEL/MOOC Course-II	0	0	0	3
Total				12	0	0	18

2. Renewable Energy Systems & Smart Grids

S. No	Subject Code	Year of Study	Subject	L	Т	P	С
1	R24EERH201	II-II	Introduction to Renewable Energy Systems	3	0	0	3
2	R24EERH302	III-I	Smart Grids and Energy Management	3	0	0	3
3	R24EERH303	III-II	Energy Storage Systems and Grid Integration	3	0	0	3
4	R24EERH404	IV-I	Advanced Topics in Renewable Energy & Smart Grids	3	0	0	3
5	R24EERH405		NPTEL/MOOC Course-I	0	0	0	3
6	R24EERH406		NPTEL/MOOC Course-II	0	0	0	3
			Total	12	0	0	18



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3. Embedded Systems & IoT

S. No	Subject Code	Year of Study	Subject	L	Т	P	С
1	R24EEESH201	II-II	Embedded C and Microcontroller Programming	3	0	0	3
2	R24EEESH302	III-I	RTOS and Embedded Linux	3	0	0	3
3	R24EEESH303	III-II	IoT and Networking for Embedded Systems	3	0	0	3
4	R24EEESH404	IV-I	Embedded Product Design and Development	3	0	0	3
5	R24EEESH405		NPTEL/MOOC Course-I	0	0	0	3
6	R24EEESH406		NPTEL/MOOC Course-II	0	0	0	3
			Total	12	0	0	18



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College offering B. Tech Minors Degree in the following Specialization, and the student can take any one of Specialization to get B. Tech Minors by satisfying eligibility criteria.

S. No	Specialization	Offered By	Minors (For Students)
1	Electrical Systems in Industrial Applications	EEE	CSE/CSE(AIML)/CSE(DS)/MECH/ECE
2	Electrical Safety & Erection	EEE	CSE/CSE(AIML)/CSE(DS)/MECH/ECE

SPECIALIZATION-1: Electrical Systems in Industrial Applications

S. No	Subject Code	Year of Study	Subject	L	Т	P	С
1	R24EIM201	II-II	Industrial Automation and Control Systems	3	0	0	3
2	R24EIM302	II-II	Basic Electrical and Electronics Engineering Lab	0	0	3	1.5
3	R24EIM303	III-I	Power Generation, Distribution, and Quality	3	0	0	3
4	R24EIM404	III-II	Motors, Drives, and Robotics in Industry	3	0	0	3
5	R24EIM405	III-II	IoT Applications of Electrical Engineering lab	0	0	3	1.5
6	R24EIM406	IV-I	Electrical Safety, Lighting, and Power Electronics	3	0	0	3
7	R24EIM407		NPTEL/MOOC Course-I	0	0	0	3
Total				12	0	6	18



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SPECIALIZATION-2: Electrical Safety & Erection

S. No	Subject Code	Year of Study	Subject	L	Т	P	С
1	R24ESM201	II-II	Electrical Safety Management	3	0	0	3
2	R24ESM302	II-II	Basic Electrical and Electronics Engineering lab	0	0	3	1.5
3	R24ESM303	III-I	Testing and Commissioning of Electrical Equipment	3	0	0	3
4	R24ESM404	III-II	Principles of Substation Design and Construction	3	0	0	3
5	R24 ESM405	III-II	Electrical Safety & Erection Lab	0	0	3	1.5
6	R24 ESM406	IV-I	Design, Erection and Commissioning of Solar Power Plants	3	0	0	3
7	R24ESM407		NPTEL/MOOC Course-I	0	0	0	3
Total				12	0	6	18