

Date 11/8/24
10/11/24



माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
Deemed University

(Declared under Distinct Category by Ministry of Education, Government of India)

NAAC ACCREDITED WITH A++ Grade

Gola Ka Mandir, Gwalior (M.P.)- 474005, INDIA

Ph.:+91-751-2409300, E-mail: vicechancellor@mitsgwalior.in, Website: www.mitsgwalior.in



MITS

Minutes

of

Meeting

BOARD OF STUDIES

September 12th, 2024



DEPARTMENT OF ELECTRICAL ENGINEERING
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE-DU, GWALIOR



Date: 12-09-2024

Minutes of Meeting Board of Studies

The Board of Studies (BoS) meeting of the Electrical Engineering department was held on 12th September 2024 at 4:00 PM onwards in hybrid mode. Following external members were invited in addition to the faculty members of the department:

1. Dr. Jawar Singh, Professor, Electrical Engineering Department IIT Patna (VC Nominee)
2. Dr. Manisha Dubey, Professor, Electrical Engineering Department, MANIT, Bhopal ((VC Nominee))

Above mentioned External experts and the following Internal members attended the meeting:

1. Dr. Manjaree Pandit, Professor & Dean Faculty of Engg. & Technology
2. Dr. A.K. Wadhwani, Professor
3. Dr. Sulochana Wadhwani, Professor & Head
4. Dr. Shishir Dixit, Professor
5. Prof. Ashis Patra, Associate Professor
6. Dr. Himmat Singh, Assistant Professor
7. Prof Rakesh Narvey, Assistant Professor
8. Dr. Vijay Bhuria, Assistant Professor

In addition, following internal faculty member were also present:

1. Prof Kuldeep Kumar Swarnkar, Assistant Professor
2. Prof Vishal Chaudhary, Assistant Professor

To Agenda-wise summary of the BoS meeting is as follows:

BoS Agenda Items	
EE Item 1	To propose the scheme structure for the Batch admitted in 2024-25 academic session under the Madhav Institute of Technology & Science-Deemed University (MITS-DU) (The total credits from I-VIII semester should not be less than 160 for this batch). The scheme structure of for the Batch admitted in 2024-25 academic session under the Madhav Institute of Technology & Science-Deemed University (MITS-DU) is discussed and finalized. The scheme structure is annexed as Annexure -1.
EE Item 2	To review & finalize the syllabi for all courses of B. Tech I Semester (for batch admitted in 2024-25) under the flexible curriculum along with their COs. The syllabi for all courses of B. Tech I Semester (for batch admitted in 2024-25) under the flexible curriculum along with their COs is discussed and finalized and annexed as Annexure -2.
EE Item 3	To review and finalize the Experiment list/ Lab manual for all the Laboratory Courses and Micro Project-I to be offered in B.Tech. I semester along with their COs. The Experiment list/ Lab manual for all the Laboratory Courses and Micro Project-I to be

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	offered in B.Tech. I semester along with their COs is prepared and discussed with the internal & external members. The finalized list is annexed at Annexure-3.
EE Item 4	To discuss and recommend the scheme structure for the Batch admitted in 2024-25 academic session & syllabi of I semester PG Programme under the Madhav Institute of Technology & Science-Deemed University (MITS-DU) (M.E./M.Tech./MCA/MBA/MUP) along with their Course Outcomes (COs) The scheme structure of for the ME admitted in 2024-25 academic session under the Madhav Institute of Technology & Science-Deemed University (MITS-DU) is discussed and finalized. The scheme structure is annexed as Annexure-4 and the Syllabus is at Annexure-5.
EE Item 5	To review and finalize the syllabus/module of Classified Novel Engaging Course to be offered in I semester of PG programme. The syllabus/module of Classified Novel Engaging Course to be offered in I semester of PG programme is prepared and finalized and is Annexed at Annexure-6.
EE Item 6	To review and finalize the scheme structure for the Batch admitted in 2024-25 academic session & syllabi of Research Methodology and Ethics Ph.D. Programme under the Madhav Institute of Technology & Science-Deemed University (MITS-DU) The scheme structure for the Batch admitted in 2024-25 academic session & syllabi of Research Methodology and Ethics Ph.D. Programme under the Madhav Institute of Technology & Science-Deemed University (MITS-DU) is finalized and is annexed as Annexure-7.
EE Item 7	Any other matter: The feedback from the external members: <ul style="list-style-type: none"> Regarding the mode of examination, it is suggested by the external members that Minor Evaluations should be conducted in MCQ mode whereas the final evaluation should be in pen paper mode for core subjects. In II semester Scheme, there must be a Laboratory course in Network Analysis and , Analog & Digital lab is missing MAC and MWS should not be shown in the scheme. It should be conducted separately in the semester. Electrical engineering scheme focused on core subject wise rather than multidisciplinary subjects For PhD programme, Minor1 & Minor 2 evaluations should be of 30 marks.

The meeting is ended with Vote of Thanks by the Chairperson.

Dr Vijay Bhuria

Prof Rakesh Narvey

Dr Himmat Singh

Prof Ashis Patra

Dr Shishir Dixit

Dr S. Wadhvani

Dr A.K. Wadhvani

Dr M Pandit

Present (online)
Dr Jawar Singh
Professor, IIT Patna

Present (online)
Dr Manisha Dubey
Professor, MANIT Bhopal

Dean
Faculty of Engineering & Technology
MITS-DU



Annexure-I

Semester-Wise General Scheme Structure & Important Guidelines for Flexible Curriculum

(Batch admitted in Academic Session 2024-25 onwards)

Abbreviations Used

L	Lecture
T	Tutorial
P	Practical
HSMC	Humanities and Social Sciences including Management Courses
BSC	Basic Science Courses
ESC	Engineering Science Courses
DC	Departmental Core
DE	Departmental Elective
SPC	Specialization Courses
OC	Open Category
DLC	Departmental Laboratory Courses
MOOC	Massive Open Online Course
MWS	Mandatory Workshop
SP	Semester Proficiency
SIP	Summer Internship Project
SLP	Self-learning Presentation
PDC	Professional Development Component
PBL	Project Based Learning
PC	Professional Certification
MAC	Mandatory Audit Course
NEC	Novel Engaging Course

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Department of Electrical Engineering
Scheme of Evaluation
B. Tech. I Semester (Electrical Engineering) (for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block									
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation								
				Minor Evaluation I	Minor Evaluation II	Quiz/ Assignment		Lab Work & Sessional									
1.	13241101	DC	Electrical Engineering Materials	20	20	30	30	-	-	100	3	-	-	3	Face to Face	MCQ	2Hrs
2.	13241102	ESC	Computer Programming	20	20	30	30	-	-	100	2	-	-	2	Face to Face	MCQ	2 Hrs
3.	13241103	ESC	Basic Civil Engineering& Mechanics	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
4.	13241104	ESC	Basic Mechanical Engineering	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
5.	13241105	ESC	Basic Electrical & Electronics Engineering	20	20	30	30	-	-	100	2	-	-	2	Face to Face	MCQ	2Hrs
6.	13241106	DLC	Computer Programming Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
7.	13241107	DLC	Electrical & Electronics Engineering Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
8.	13241108	SP	Semester Proficiency ^S	-	-	-	-	50	-	50	-	-	2	1	Face to Face	SO	-
9.	13241109	PBL	Micro Project-I [#]	-	-	-	-	70	30	100	-	-	2	1	Experiential	SO	-
10.	13241110	ESC	Engineering Physics Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
11.	NEC::XXXX	NEC	Novel Engaging Course (Activity Based Learning)	-	-	-	-	-	50	50	-	1	-	1	Interactive	SO	-
Total				100	100	150	150	330	170	1000	11	3	10	19	-	-	-
12.	13241111	MAC	Universal Human Values & Professional Ethics (UHVPE)	20	20	30	30	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
13.	13241112	MWS	Mandatory Workshop on Indian Constitution and Traditional Knowledge at Department Level (Duration: Two Days)											GRADE	Interactive	MCQ	-
Induction programme of three weeks (MC): Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations.																	
Skill Internship Program (Soft Skill): Minimum 45 hours duration: To be credited in II Semester.																	

³Semester Proficiency- includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses.

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral OB: Open Book

⁴This course will be distributed in the I Year Group wise among the programmes where ever required.

⁵Micro Project-I will be presented and evaluated through an interdisciplinary project evaluation committee.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	5	1	0	0	0	2	1	1	0	0	0	1	1	1

Mode of Learning						Mode of Examination					Total Credits
Theory		Lab				Theory			Lab		
Face to Face	Online	Interactive	Experiential	Experimental	Face to Face	PP	MCQ	OB	SO	AO	
13	-	1	1	3	1	6	7	-	3	3	19
68.4%	-	5.3%	5.3%	15.8%	5.3%	31.6%	36.8%	-	15.8%	15.8%	Credits %

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Department of Electrical Engineering

Scheme of Evaluation

B. Tech. II Semester (Electrical Engineering)

(for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block									
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment		Lab Work & Sessional									
1.	13241201	DC	Network Analysis	20	20	30	30	-	-	100	3	-	-	3	Face to Face	MCQ	2 Hrs
2.	13241202	DC	Measurement & Instrumentation	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
3.	13241203	DC	Analog & Digital Electronics	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2Hrs
4.	13241204	ESC	Engineering Drawing	20	20	30	30	-	-	100	1	2	-	3	Face to Face	PP	2 Hrs
5.	13241205	BSC	Calculus and Laplace Transforms	20	20	30	30	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
6.	13241206	DLC	Measurement & Instrumentation Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
7.	13241207	DLC	Problem Solving through Python Programming	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
8.	13241208	SP	Semester Proficiency ^s	-	-	-	-	50	-	50	-	-	2	1	Face to Face	SO	-
9.	13241209	PBL	Micro Project-II [#] (Analog & Digital Electronics based)	-	-	-	-	70	30	100	-	-	2	1	Experiential	SO	-
10.	13241210	DLC	Engineering Chemistry Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
11.	13241211	HSMC	Language Lab	-	-	-	-	70	30	100	-	-	2	1	Blended	AO	-
12.	NECXxxxx	NEC	Novel Engaging Course (Activity Based Learning)	-	-	-	-	-	50	50	-	1	-	1	Interactive	SO	-
13.	SIP1xxxx	SIP	Skill Internship Program (Soft Skill)	-	-	-	-	42	18	60	-	-	-	2**	Experiential	SO	-
Total				100	100	150	150	442	218	1160	11	05	12	24	-	-	-
14.	13241212	MAC	Sustainability & Environmental Science	20	20	30	30	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
15.	13241213	MWS	Mandatory Workshop on Indian Knowledge System at Department Level(Duration: Two Days)											GRADE	Interactive	MCQ	-
Summer Semester of six-eight week duration will be conducted for makeup of I & II semester examination.																	

Summer Semester of six-eight week duration will be conducted for makeup of I & II semester examination.

^sSemester Proficiency- includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral OB: Open Book

[#]Micro Project-II will be presented and evaluated through an interdisciplinary project evaluation committee.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
1	1	1	3	0	0	0	3	1	1	0	1	0	1	1	1

Mode of Learning							Mode of Examination					Total Credits
Theory		Lab					Theory			Lab		
Face to Face	Online	Interactive	Experiential	Experimental	Face to Face	Blended	PP	MCQ	OB	SO	AO	
15	-	1	1	5	1	1	6	9	-	5	4	24
62.5%	0.0%	4.2%	4.2%	20.8%	4.2%	4.2%	25.0%	37.5%	0.0%	20.8%	16.7%	Credits %

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Department of Electrical Engineering

Scheme of Evaluation

B. Tech. III Semester (Electrical Engineering)

(for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation								
				Minor Evaluation I	Minor Evaluation II	Quiz/ Assignment		Lab Work & Sessional									
1.	13242101	BSC	Differential Equations, Matrices & Fourier Series	20	20	30	30	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
2.	13242102	DC	Data Structures	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
3.	13242103	DC	Electromagnetic Field Theory	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
4.	13242104	DC	Electrical Machines-I	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
5.	13242105	DC	Generation, Transmission & Distribution of Electric Power	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
6.	13242106	DLC	Electrical Machines-I Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
7.	13242107	DLC	Generation, Transmission & Distribution of Electric Power Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
8.	13242108	SP	Semester Proficiency ^s	-	-	-	-	50	-	50	-	-	2	1	Face to Face	SO	-
9.	13242109	PBL	Macro Project-I ^a	-	-	-	-	70	30	100	-	-	2	1	Experiential	SO	-
10.	13242110	SLP	Self-learning/Presentation ^{sss} (SWAYAM/NPTEL/MOOC)	-	-	-	-	40	-	40	-	-	2	1	Mentoring Blended	SO	-
11.	NECXXXXX	NEC	Novel Engaging Course (Activity Based Learning)	-	-	-	-	-	50	50	-	1	-	1	Interactive	SO	-
Total				100	100	150	150	300	140	940	11	05	10	21	-	-	-
12.	13242111	MAC	Cyber Security	20	20	30	30	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
13.	13242112	MWS	Mandatory Workshop on Internet of Things(IoT) at Department Level(Duration: Two Days)											GRADE	Interactive	MCQ	-

Skill Internship Project : Minimum 30 hours duration: To be credited in IV Semester

^sSemester Proficiency- includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question AO: Assignment + Oral

PP: Pen Paper SO: Submission + Oral OB: Open Book

^a Macro Project-I will be presented and evaluated through an interdisciplinary project evaluation committee. ^{sss} These credits will be transferred from Skill Internship Program.

^{sss} Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance and presentation.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	1	0	4	0	0	0	2	1	1	0	1	0	1	1	1

Mode of Learning							Mode of Examination					Total Credits
Theory		Lab					Theory			Lab		
Face to Face	Online	Interactive	Experiential	Experimental	Face to Face	Blended	PP	MCQ	OB	SO	AO	
15	-	1	1	2	1	1	6	9	-	4	2	21
71.4%	0.0%	4.8%	4.8%	9.5%	4.8%	4.8%	28.6%	42.9%	0.0%	19.0%	9.5%	Credits %

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Department of Electrical Engineering
Scheme of Evaluation
B. Tech. IV Semester (Electrical Engineering)

(for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation								
				Minor Evaluation I	Minor Evaluation II	Quiz/ Assignment											
1.	13242201	DC	Electrical Machines-II	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
2.	13242202	DC	Power System Analysis	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
3.	13242203	DC	Power Electronics	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
4.	13242204	DC	Signal & Systems	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
5.	13242205	DC	Microprocessor & Microcontroller	20	20	30	30	-	-	100	3	-	-	3	Face to Face	MCQ	2 Hrs
6.	13242206	DLC	Electrical Machines-II Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
7.	13242207	DLC	Power System Analysis Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
8.	13242208	DLC	Power Electronics & Drives Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
9.	13242209	SP	Semester Proficiency ⁵	-	-	-	-	50	-	50	-	-	2	1	Face to Face	SO	-
10.	13242210	PBL	Macro Project-II ⁶	-	-	-	-	70	30	100	-	-	2	1	Experiential	SO	-
11.	13242210	PC	Professional Certification	-	-	-	-	50	-	50	-	-	2	1	Blended	SO	-
12.	NECXXXXX	NEC	Novel Engaging Course	-	-	-	-	-	50	50	-	1	-	1	Interactive	SO	-
13.	SIP2XXXX	SIP	Skill Internship Project	-	-	-	-	42	18	60	-	-	-	2**	Experiential	SO	-
Total				100	100	150	150	422	188	1110	11	05	12	24	-	-	-
14.	13242211	MAC	Project Management, Economics & Financing	20	20	30	30	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
15.	13242212	MWS	Mandatory Workshop on Computer Vision at Department Level(Duration: Two Days)											GRADE	Interactive	MCQ	-
16.	13242213	MWS	Mandatory Workshop on Life Skills at Department Level (Duration: Two Days)											GRADE	Interactive	MCQ	-
Summer Semester of six-eight week duration will be conducted for makeup of previous semester examination.																	
Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree																	

⁵Semester Proficiency- includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral OB: Open Book

⁶Macro Project-II will be presented and evaluated through an interdisciplinary project evaluation committee.

** These credits will be transferred from Skill Internship Project.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
1	0	0	5	0	0	0	3	1	1	1	0	0	1	1	2
Mode of Learning															
Theory		Lab					Mode of Examination					Lab		Total Credits	
Face to Face	Online	Interactive	Experiential	Experimental	Face to Face	Blended	PP	MCQ	OB	SO	AO				
15	-	1	1	5	1	1	6	9	-	5	4				
62.5%	0.0%	4.2%	4.2%	20.8%	4.2%	4.2%	25.0%	37.5%	0.0%	20.8%	16.7%	24			
														Credits %	

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Department of Electrical Engineering

Scheme of Evaluation

B. Tech. V Semester (Electrical Engineering)

(for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block		MOOCs									
				Continuous Evaluation			Major Evaluation	Continuous Evaluation Lab Work & Sessional	Major Evaluation	Assignment	Exam								
				Minor Evaluation I	Minor Evaluation II	Quiz/ Assignment													
1.	13243101	DC	Switchgear & Protection	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
2.	13243102	DC	Communication System Theory	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
3.	13243103	DC	Data Science	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
4.	132431xx	DE	Departmental Elective*(DE-1)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
5.	132431yy	SPC	Specialization Course (SPC-1)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
6.	13243104	DLC	Switchgear & Protection Lab	-	-	-	-	70	30	-	-	100	-	-	2	1	Experimental	AO	-
7.	13243105	DLC	Data Science Lab	-	-	-	-	70	30	-	-	100	-	-	2	1	Experimental	AO	-
8.	13243106	SP	Semester Proficiency\$	-	-	-	-	50	-	-	-	50	-	-	2	1	Face to Face	SO	-
9.	13243107	PBL	Cornerstone Project	-	-	-	-	70	30	-	-	100	-	-	4	2	Experiential	SO	-
Total				80	80	120	120	260	90	25	75	850	11	04	10	20	-	-	-
10.	13243108	MAC	Supply Chain Management	20	20	30	30	-	-	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
11.	13243109	MWS	Mandatory Workshop on Blockchain at Department Level(Duration: Two Days)													GRADE	Interactive	MCQ	-
Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree																			

Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree

*Semester Proficiency- includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question AO: Assignment + Oral

PP: Pen Paper

SO: Submission + Oral

OB: Open Book

* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	0	3	1	1	0	2	0	1	0	0	0	1	1	1

Mode of Learning							Mode of Examination					Total Credits
Theory		Lab					Theory			Lab		
Face to Face	Online	Interactive	Experiential	Experimental	Face to Face	Blended	PP	MCQ	OB	SO	AO	
12	3	0	2	2	1	0	6	9	-	3	2	20
60.0%	15.0%	0.0%	10.0%	10.0%	5.0%	0.0%	30.0%	45.0%	0.0%	15.0%	10.0%	Credits %

12/12/24



Department of Electrical Engineering

Scheme of Evaluation

B. Tech. VI Semester (Electrical Engineering) (for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block		MOOCs			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation	Assignment	Exam								
				Minor Evaluation I	Minor Evaluation II	Quiz/ Assignment		Lab Work & Sessional											
1.	13243201	DC	Control Systems	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
2.	13243202	DC	Artificial Intelligence & Machine Learning	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	MCQ	2Hrs
3.	132432xx	DE	Departmental Elective*(DE-2)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
4.	132432yy	OC	Open Category Course (OC-1)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
5.	132432zz	SPC	Specialization Course (SPC-2)	20	20	30	30	-	-	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
6.	13243203	DLC	Control System Lab	-	-	-	-	70	30	-	-	100	-	-	2	1	Experimental	AO	-
7.	13243204	DLC	Artificial Intelligence & Machine Learning Lab	-	-	-	-	70	30	-	-	100	-	-	2	1	Experimental	AO	-
8.	13243205	SP	Semester Proficiency ^s	-	-	-	-	50	-	-	-	50	-	-	2	1	Face to Face	SO	-
9.	13243206	PBL	Capstone Project	-	-	-	-	70	30	-	-	100	-	-	4	2	Experiential	SO	-
Total				80	80	120	120	260	90	25	75	850	12	03	10	20	-	-	-
10.	13243207	MAC	Disaster Management	20	20	30	30	-	-	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
11.	13243208	MWS	Mandatory Workshop on Intellectual Property Rights at Department Level(Duration: Two Days)													GRADE	Interactive	MCQ	-
Skill Enhancement Program/Research Internship/On Job Training for Four weeks duration (Optional)																			
Summer Semester of six-eight week duration will be conducted for makeup of previous semester examination.																			
Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree																			

^sSemester Proficiency- includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral OB: Open Book

* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	0	2	1	1	1	2	0	1	0	0	0	1	1	1

Mode of Learning							Mode of Examination					Total Credits
Theory		Lab					Theory			Lab		
Face to Face	Online	Interactive	Experiential	Experimental	Face to Face	Blended	PP	MCQ	OB	SO	AO	
12	3	0	2	2	1	0	6	9	-	3	2	20
60.0%	15.0%	0.0%	10.0%	10.0%	5.0%	0.0%	30.0%	45.0%	0.0%	15.0%	10.0%	Credits %

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Department of Electrical Engineering

Scheme of Evaluation

B. Tech. VII Semester (Electrical Engineering)

(for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode Of Exam.	Duration of Major Evaluation	
				Theory Block				Practical Block		MOOCs										
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation	Assignment	Exam									
				Minor Evaluation I	Minor Evaluation II	Quiz/ Assignment		Lab Work & Sessional												
1.	132441xx	DE	Departmental Elective (DE-3)	20	20	30	30	-	-	-	-	100	3	-	-	3	Face to Face	MCQ	2 Hrs	
2.	132441mm	DE	Departmental Elective* (DE-4)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs	
3.	132441yy	OC	Open Category Course (OC-2)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs	
4.	132441zz	SPC	Specialization Course (SPC-3)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs	
5.	13244101	SP	Semester Proficiency ^s	-	-	-	-	50	-	-	-	50	-	-	2	1	Face to Face	SO	-	
6.	13244102	DLC	Creative Problem Solving	-	-	-	-	70	30	-	-	100	-	-	2	1	Experiential	AO	-	
Total				60	60	90	90	120	30	25	75	550	10	02	04	14	-	-	-	
7.	13244103	MWS	Mandatory Workshop on Advanced Intellectual Property Rights at Department Level(Duration: Two Days)													GRADE		Interactive	MCQ	-

^sSemester Proficiency- includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses.

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral OB: Open Book

* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	0	0	2	1	1	1	0	1	0	0	0	0	0	1

Mode of Learning							Mode of Examination					Total Credits
Theory		Lab					Theory			Lab		
Face to Face	Online	Interactive	Experiential	Experimental	Face to Face	Blended	PP	MCQ	OB	SO	AO	
9	3	0	1	0	1	0	6	6	0	1	1	
64.3%	21.4%	0.0%	7.1%	0.0%	7.1%	0.0%	42.9%	42.9%	0.0%	7.1%	7.1%	Credits %

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Department of Electrical Engineering

Scheme of Evaluation

B. Tech. VIII Semester (Electrical Engineering) (for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Exam.	Duration of Major Evaluation.
				Theory Block				Practical Block		MOOCs									
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation	Assignment	Exam		L	T	P				
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment													
1.	132442xx	DE	Departmental Elective* (DE-5)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
2.	132442yy	OC	Open Category Course*(OC-3)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
3.	13244201	PBL	Industry Internship/Research Internship/ Innovation & Start-up	-	-	-	-	280	120	-	-	400	-	-	20	10	Experiential	SO	-
4.	13244202	PDC	Professional Development ^{##}	-	-	-	-	-	50	-	-	50	-	-	4	2	Interactive	SO	-
Total				-	-	-	-	280	170	50	150	650	06	-	24	18	-	-	-
Summer Semester of six-eight week duration will be conducted to complete any backlog courses.																			
Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree																			

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral OB: Open Book

*Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform

^{##} Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical and other events during the complete tenure of the UG programme (participation in professional chapter activities, club activities, cultural events, sports, personality development activities, collaborative events, MOOCs, technical events, institute/department committees, etc.)

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0

Mode of Learning							Mode of Examination					Total Credits
Theory		Lab					Theory			Lab		
Face to Face	Online	Interactive	Experiential	Experimental	Face to Face	Blended	PP	MCQ	OB	SO	AO	
0	6	2	10	0	0	0	0	6	0	12	0	
0%	33.3%	11.1%	55.6%	0%	0%	0%	0%	33.3%	0%	66.7%	0%	Credits %

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Department of Electrical Engineering

List of Department Elective Courses: (Traditional Mode)

1. Power System Economics
2. Electrical Safety
3. Energy Storage Technologies
4. Electric Power Quality
5. Renewable Power Generation Systems
6. Integrated Energy Systems
7. Switched Mode Power supplies
8. Design of Electrical Apparatus
9. Utilization of Electrical Energy
10. Industrial Instrumentation and Automation
11. Electric Drives
12. HVDC & FACTS
13. Hybrid Vehicles
14. Restructured Power Systems
15. Semiconductor Based Sensors
16. Digital Circuit Design
17. Energy Auditing
18. High Voltage Engineering
19. Energy Auditing
20. Advanced Control System

List of Open Category Courses: (Traditional Mode)

1. Electrical Technology
2. Hybrid Vehicles
3. Biomedical Instrumentation
4. Energy Storage Systems and Applications
5. Industrial Instrumentation and Automation
6. Energy Conservation & Management
7. Applications of Electrical Equipment & Motors
8. Bio-Inspired Algorithms and Applications

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Department of Electrical Engineering

Specialization Courses:

Smart Grid Technologies:

1. Elements of Smart Grid System
2. Wide Area Monitoring and Control
3. Smart Grid Protection
4. Smart Grid Communications and Protocols

Power System & Energy

1. Sustainable and Renewable Energy Technology
2. Distributed Generation & Micro Grids
3. Power System Planning, Operation & Control
4. Energy Storage Technologies

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