

Faculty of Engineering & Technology
Department of Electrical Engineering
Minutes of Meeting
Boards of Studies

A meeting of Boards of Studies of Department of Electrical Engineering, FET was held on 19/08/2025 (Tuesday) at 2:30 PM. in conference room of FET. The following members were present:

- | | | |
|---------------------------|---------------|--|
| 1. Dr. Indrajeet Gupta | - Chairperson |  |
| 2. Dr. Samir Kumar Mishra | - Member | |
| 2. Dr. Raghvendra Singh | - Member | |

The following members agreed to review the minutes in Delhi.

- | | | |
|----------------------|-------------------|---|
| 1. Prof. Jawar Singh | - External Member |  |
| 2. Mr. Raj Johri | - External Member | |

Agenda:

1. Action Taken Report (ATR) on Minutes of Previous Meeting.

The BOS committee confirmed the minutes of the BOS meeting held on 18/05/2024.

2. To review Result analysis.

The Board reviewed the result analysis and found it to be acceptable but need more improvements.

3. Review of the existing program and their curricula

S. No.	Item No.	Existing	Recommendation /Action Taken
1	No change Syllabus of P.G. Course in Department of Electrical Engineering as per CBCS system admitted in session 2025-26	Marks Based Evaluation System	The BOS discussed the item and Recommended for approval the no change syllabus for 2020-21 session of P.G regular and for 2024-25 session PG part time Course of the Department of Electrical Engineering which is designed as per CBCS system.

The meeting concluded with a vote of thanks to the chair.

Date of the Next Meeting: to be decided and conveyed later

(Chairman)

CC:

1. Dean
2. Registrar Office



Course Curriculum (w.e.f. Session 2024-25)
M.Tech. Power Electronics & Power Systems

First Semester

S. NO.	CODE	SUBJECT	TEACHING SCHEME			EVALUATION SCHEME				TOTAL MARKS	CREDITS	CONTACTS HRS/WK
			L	T	P	CA	MTE	ETE				
1.	MEE-101	Power System Operation & Control	3	1	0	30	20	100	150	4	5	
2.	MEE-102	Advanced Power System Analysis	3	1	0	30	20	100	150	4	5	
3.	MEE-103	Advanced Power Electronics	3	1	0	30	20	100	150	4	5	
PRACTICALS												
5.	MEE-151	Power System Lab	0	0	4	-	20	30	50	2	2	
6.	MEE-152	Power Electronics Lab	0	0	4	-	20	30	50	2	2	
		TOTAL	9	3	8	90	100	360	550	16	19	

DEPARTMENT OF ELECTRICAL ENGINEERING, Faculty of Engineering and Technology

Vishar

D

Sys prof



Course Curriculum (w.e.f. Session 2024-25)
M.Tech. Power Electronics & Power Systems

Second Semester

S. NO.	CODE	SUBJECT	TEACHING SCHEME			EVALUATION SCHEME			TOTAL MARKS	CREDITS	CONTACTS HRS/WK
			L	T	P	CA	MTE	ETE			
1.	MEE-201	Power System Protection	3	1	0	30	20	100	150	4	5
2.	MEE-202	Advanced Electrical Machines	3	1	0	30	20	100	150	4	5
3.	MEE-203	HVDC Transmission	3	1	0	30	20	100	150	4	5
PRACTICALS											
6.	MEE-251	Electrical Machine Lab	0	0	4	-	20	30	50	2	2
7.	MEE-252	Advance Machine Lab	0	0	4	-	20	30	50	2	2
		TOTAL	9	4	8	90	100	360	550	16	19

Vishal



Course Curriculum (w.e.f. Session 2024-25)
M.Tech. Power Electronics & Power Systems

Third Semester

S. NO.	CODE	SUBJECT	TEACHING SCHEME			EVALUATION SCHEME			TOTAL MARKS	CREDITS	CONTACTS HRS/WK
			L	T	P	CA	MTE	ETE			
1.	MEE-104	Digital Control System	3	1	0	30	20	100	150	4	5
2.	MEE 024 to MEE 027	Departmental Elective-II	3	1	0	30	20	100	150	4	5
PRACTICALS											
3.	MEE 351	Departmental Elective-II	0	0	4	-	20	30	50	2	2
		TOTAL	6	2	4	60	60	230	350	10	12

Fourth Semester

S. NO.	CODE	SUBJECT	TEACHING SCHEME			EVALUATION SCHEME			TOTAL MARKS	CREDITS	CONTACTS HRS/WK
			L	T	P	CA	MTE	ETE			
1.	MEE 011 to MCS 014	Departmental Elective-I	3	1	0	30	20	100	150	4	5
PRACTICALS											
3.	MEE 451	Departmental Elective-I	0	0	4	-	20	30	50	2	2
		TOTAL	3	1	4	30	40	130	200	6	7

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Course Curriculum (w.e.f. Session 2024-25)
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Fifth Semester

S. No.	CODE	SUBJECT	TEACHING SCHEME		EVALUATION SCHEME				TOTAL MARKS	CREDITS	CONTACTS HRS/WK
					L	T	P	CA			
1.	MEE 037 to MEE 040	Departmental Elective-III	3	1	0	0	0	30	100	4	5
PRACTICALS											
3.	MEE 501	Dissertation-I	0	0	24	-	100	200	300	12	10
		TOTAL	3	1	24	30	120	300	450	16	15

Six Semester

S. No.	CODE	SUBJECT	TEACHING SCHEME		EVALUATION SCHEME				TOTAL MARKS	CREDITS	CONTACTS HRS/WK
					L	T	P	CA			
3.	MEE 601	Dissertation-II	0	0	32	-	200	300	500	16	12
		TOTAL	0	0	12	00	200	300	500	16	12

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Course Curriculum (w.e.f. Session 2024-25)
M.Tech. Power Electronics & Power Systems

Program Core

S. NO.	CODE	SUBJECT	TEACHING SCHEME		EVALUATION SCHEME					TOTAL MARKS	CREDITS	CONTACTS HR/WK	PRE- REQUISITES		
			L	T	P	J	CA	MTE	ETE						
THEORY															
1.	MEE-101	Power System Operation & Control	3	1	0	0	0	30	20	100	150	4	5		
2.	MEE-102	Advanced Power System Analysis	3	1	0	0	0	30	20	100	150	4	5		
3.	MEE-103	Advanced Power Electronics	3	1	0	0	0	30	20	100	150	4	5		
4.	MEE-104	Digital Control System	3	1	0	0	0	30	20	100	150	4	5		
5.	MEE-201	Power System Protection	3	1	0	0	0	30	20	100	150	4	5		
6.	MEE-202	Advanced Electrical Machines	3	1	0	0	0	30	20	100	150	4	5		
7.	MEE-203	HVDC Transmission	3	1	0	0	0	30	20	100	150	4	5		
PRACTICALS															
8.	MEE-151	Power System Lab	0	0	4	0	0	-	20	30	50	2	2		
9.	MEE-152	Power Electronics Lab	0	0	4	0	0	-	20	30	50	2	2		
10.	MEE-251	Electrical Machine Lab	0	0	4	0	0	-	20	30	50	2	2		
11.	MEE-252	Advance Machine Lab	0	0	4	0	0	-	20	30	50	2	2		
Total			21	7	16	0	0	210	220	920	1250	36	43		

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W.M.

D

Prof

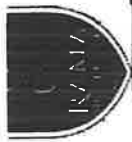


Course Curriculum (w.e.f. Session 2024-25)
M.Tech. Power Electronics & Power Systems

Program Elective

S. NO.	CODE	SUBJECT	TEACHING SCHEME				EVALUATION SCHEME			TOTAL MARKS	CREDITS	CONTACTS HR/WK	PRE-REQUISITES
			L	T	P	J	CA	MTE	ETE				
Bouquet: Elective I													
THEORY													
1.	MEE 011	EHVAC Transmission	3	1	0	0	30	20	100	150	4	5	
2.	MEE 012	Applied Instrumentation	3	1	0	0	30	20	100	150	4	5	
3.	MEE 013	Distributed Generation	3	1	0	0	30	20	100	150	4	5	
4.	MEE 014	Power Electronics for Renewable Energy Systems	3	1	0	0	30	20	100	150	4	5	
PRACTICALS													
	MEE-451	Advanced Power Electronic Converters Lab	0	0	4	0	-	20	30	50	2	2	
Total			12	4	4	0	120	100	430	650	18	22	

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Course Curriculum (w.e.f. Session 2024-25)
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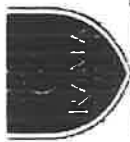
Program Elective

S. NO.	CODE	SUBJECT	TEACHING SCHEME					EVALUATION SCHEME			TOTAL MARKS	CREDITS	CONTACTS HR/WK	PRE-REQUISITES
			L	T	P	J	CA	MTE	ETE					
Bouquet: Elective II														
THEORY														
1.	MEE 024	Energy Management and Audit	3	1	0	0	30	20	100	150	4	5		
2.	MEE 025	Microprocessor & their Application	3	1	0	0	30	20	100	150	4	5		
3.	MEE 026	FACTS Devices	3	1	0	0	30	20	100	150	4	5		
4.	MEE 027	SCADA Systems and Applications	3	1	0	0	30	20	100	150	4	5		
PRACTICALS														
	MEE-351	Electrical Drives Lab	0	0	4	0	-	20	30	50	2	2		
	Total		12	4	4	0	120	100	430	650	18	22		

Program Elective

S. NO.	CODE	SUBJECT	TEACHING SCHEME				EVALUATION SCHEME				TOTAL MARKS	CREDITS	CONTACTS HR/WK	PRE-REQUISITES
			L	T	P	J	CA	MTE	ETE					
Bouquet: Elective III														
THEORY														
1.	MEE 037	Advanced Electrical Drives	3	1	0	0	30	20	100	150	4	5		

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Course Curriculum (w.e.f. Session 2024-25)

M.Tech. Power Electronics & Power Systems

2.	MEE 038	Non-Conventional Energy Systems	3	1	0	0	30	20	100	150	4	5	
3.	MEE 039	Energy Efficient Machines	3	1	0	0	30	20	100	150	4	5	
4.	MEE 040	Power Quality	3	1	0	0	30	20	100	150	4	5	
Total			10	4	0	0	120	80	400	600	16	20	

Projects

S. NO.	CODE	SUBJECT	TEACHING SCHEME					EVALUATION SCHEME			TOTAL MARKS	CONTACTS HR/WK	PRE-REQUISITES
			L	T	P	J	CA	MTE	ETE				
PRACTICALS													
	MEE-501	Dissertation-I	0	0	24	0	-	100	200	300	12	10	
	MEE-601	Dissertation-II	0	0	32	0	-	200	300	500	16	12	
	TOTAL		0	0	56	0	-	300	500	800	28	32	

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Course Curriculum (w.e.f. Session 2024-25)

M.Tech. Power Electronics & Power Systems

MEE-501	Dissertation-III	0	0	12	0	100	200	300	7	10	
MEE-601	Dissertation-IV	0	0	12	0	200	300	500	16	12	
TOTAL		0	0	40	0	420	730	1150	32	34	

MEE-101: POWER SYSTEM OPERATIONS AND CONTROL

L	T	P	Credit	Pre-requisites
3	1	0	4	None

Course Objectives:

The course is designed to meet with the objectives of:

1. To understand the electrical power plant operation and control.
2. To know the importance of compensation & compensating techniques in power system.

Detail Contents:

Unit-I: Economic operation:

8 Hours

Load forecasting-Method of last square curve fit-unit commitment-constraints in unit commitment solution methods-The economic dispatch problem of thermal units-Gradient method-Newton's method-Base point and participation factor method-Unit commitment versus economic dispatch.

Unit-II: Hydro-thermal co-ordination:

8 Hours

Hydroelectric plant models-scheduling problems-short term hydrothermal scheduling problem gradient approach-Hydro units in series pumped storage hydro plants hydro scheduling using Dynamic programming and linear programming.

Unit-III: Automatic generation control (A.G.C.):

8 Hours

Review of LFC and economic dispatch control (EDC) using the three modes of control viz. Flat frequency- tie-line control and tie-line bias control-AGC implementation-AGC features static and dynamic response of controlled two area system.

Unit-IV: MVAR control power system security:

8 Hours

MVAR control-voltage monitoring-application of voltage regulator-synchronous condenser-transformer taps-static VAR compensators-Thyristor switched capacitors-Thyristor controlled reactors. Power system security: Factors affecting system security contingency analysis-linear sensitivity factors-AC power

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