Ref: RU/FET/EE/BOS/2025/001 **Dated: 19/08/2025**

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

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**

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**

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**

Fifth Semester

S. NO.	CODE	SUBJECT	TEACHING SCHEME			EVALUATION SCHEME			TOTAL MARKS	CREDITS	CONTACTS HRS/WK
			L	T	P	CA	MTE	ETE			
1.	MEE 037 to MEE 040	Departmental Elective-III	3	1	0	30	20	100	150	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	MTE	ETE			
PRACTICALS											
3.	MEE 601	Dissertation-II	0	0	32	-	200	300	500	16	12
		TOTAL	**0**	**0**	**12**	**00**	**200**	**300**	**500**	**16**	**12**

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	30	20	100	150	4	5	
2.	MEE-102	Advanced Power System Analysis	3	1	0	0	30	20	100	150	4	5	
3.	MEE-103	Advanced Power Electronics	3	1	0	0	30	20	100	150	4	5	
4.	MEE-104	Digital Control System	3	1	0	0	30	20	100	150	4	5	
5.	MEE-201	Power System Protection	3	1	0	0	30	20	100	150	4	5	
6.	MEE-202	Advanced Electrical Machines	3	1	0	0	30	20	100	150	4	5	
7.	MEE-203	HVDC Transmission	3	1	0	0	30	20	100	150	4	5	
PRACTICALS													
8.	MEE-151	Power System Lab	0	0	4	0	-	20	30	50	2	2	
9.	MEE-152	Power Electronics Lab	0	0	4	0	-	20	30	50	2	2	
10.	MEE-251	Electrical Machine Lab	0	0	4	0	-	20	30	50	2	2	
11.	MEE-252	Advance Machine Lab	0	0	4	0	-	20	30	50	2	2	
Total			**21**	**7**	**16**	**0**	**210**	**220**	**820**	**1250**	**36**	**43**	

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**	

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	

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	CREDITS	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**	

	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