

**M. TECH. IN ELECTRICAL POWER SYSTEM MANAGEMENT
UNDER THE CHOICE BASE CREDIT SYSTEM (CBCS)
Effective from July-2020**

Category of Courses

DC: Departmental core
CBCS: Choice Based Credit System
SEC: Skill Enhancement Courses
AECC: Ability Enhancement Compulsory Course
DE: Departmental electives

Abbreviation

L Lecture
T Tutorial
P Practical
CCA Continuous Class Assessment
MSE Mid Semester Evaluation

I Year

First Semester													
S. No	Course No.	Course Name	Type of Course	CREDIT	Periods Per week			Examination Scheme (Distribution of Marks)					
					L	T	P	Mid Semester Evaluation			End Semester Evaluation	Total Marks	
								CCA	MSE-1	MSE-2			
01	EEM-101	Intelligent Techniques	CBCS	4	3	1	-	10	15	15	60	100	
02	EEM-107	Automation Systems	DC	4	3	1	-	10	15	15	60	100	
03	EEM-109	Power System Modeling	DC	4	3	1	-	10	15	15	60	100	
04	EEM-111	Renewable and Sustainable Energy Systems	DC	4	3	1	-	10	15	15	60	100	
05	-	Elective-1	DE	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB.)													
06	EEM-134	SCADA Lab	SEC	2	-	-	4	30	-	-	20	50	
Total				22								550	
Elective –I: EEM-114 Communication Protocol /EEM-106 Applied Mathematics for Engineers/EEM-113 Power Quality and FACTS													
Second Semester													
01	EEM-201	Optimization Techniques	CBCS	4	3	1	-	10	15	15	60	100	
02	EEM-209	Power System Dynamics and Stability	DC	4	3	1	-	10	15	15	60	100	
03	EEM-211	Smart Grid Technologies	AECC	4	3	1	-	10	15	15	60	100	
04	-	Elective-II	DE	4	3	1	-	10	15	15	60	100	
05	-	Elective-III	DE	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB.)													
06	EEM-239	Power System Automation Laboratory	SEC	2	-	-	4	30	-	-	20	50	
	EEM-240	Seminar	SEC	2	-	-	4	30	-	-	20	50	
Total				24								Total	600
Elective –II: EEM-213 Digital Power System Protection/EEM- 214 Power System Planning and Reliability													
Elective-III: EEM-204 Modelling and Simulation /EEM-215 Power System Analysis/EEM-216 Digital Communication													

II Year

Third Semester												
S. No.	Course No.	Course Name	Type of Course	CREDIT	Periods Per week			Examination Scheme (Distribution of Marks)				
					L	T	P	Mid Semester Evaluation			End Semester Evaluation	Total Marks
								CC A	MSE-1	MSE-2		
01	-	Elective –IV	SEC	4	3	1	-	10	15	15	60	100
02	-	Elective –V	CBCS	4	3	1	-	10	15	15	60	100
PRACTICAL (LAB.)												
06	EEM-350	Minor Project	DC	8	-	-	16	120	-	-	80	200
07	EEM-352	Smart Energy Systems Automation Lab		2	-	-	4	30	-	-	20	50
Total				18								450
Elective –IV: EEM307 Restructuring and Deregulation of Power System/EEM 306 Advanced Power Electronics Elective –V: EEM-308 Transmission and Distribution Automation /EEM-309 EHVAC and DC Transmission												
Fourth Semester												
01	EEM-450	Dissertation	DC	12	-	-	24	180	-	-	120	300
Total				12								Total 300

Total Credits (22+24+18+12=74)

**M. TECH. IN INSTRUMENTATION AND CONTROL SYSTEMS
UNDER THE CHOICE BASE CREDIT SYSTEM (CBCS)**

Effective from July-2018

Category of Courses

DC: Departmental core
CBCS: Choice Based Credit System
SEC: Skill Enhancement Courses
AECC: Ability Enhancement Compulsory Course
DE: Departmental electives

Abbreviation

L Lecture
T Tutorial
P Practical
CCA Continuous Class Assessment
MSE Mid Semester Evaluation

I Year

First Semester													
S. No	Course No.	Course Name	Type of Course	CREDIT	Periods Per week			Examination Scheme (Distribution of Marks)					
					L	T	P	Mid Semester Evaluation			End Semester Evaluation	Total Marks	
								CCA	MSE-1	MSE-2			
01	EEM-101	Intelligent Techniques	CBCS	4	3	1	-	10	15	15	60	100	
02	EEM-102	Instrumentation Systems	DC	4	3	1	-	10	15	15	60	100	
03	EEM-103	Optimal Control Theory	DC	4	3	1	-	10	15	15	60	100	
04	-	Elective I	DE	4	3	1	-	10	15	15	60	100	
05	-	Elective –II	DE	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB.)													
06	EEM-132	Instrumentation System Lab	SEC	2	-	-	4	30	-	-	20	50	
				Total	22							550	
Elective –I: EEM-114 Communication Protocol/EEM-105 Robotics and Control/EEM-106 Applied Mathematics for Engineers Elective –II: EEM-107 Automation Systems/EEM-108 Process Control													
Second Semester													
01	EEM-201	Optimization Techniques	CBCS	4	3	1	-	10	15	15	60	100	
02	EEM-202	Adaptive and Robust Control	DC	4	3	1	-	10	15	15	60	100	
03	EEM-210	Biomedical Instrumentation	AECC	4	3	1	-	10	15	15	60	100	
04	-	Elective III	DE	4	3	1	-	10	15	15	60	100	
05	-	Elective –IV	DE	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB.)													
06	EEM-232	Advance Control System Lab	SEC	2	-	-	4	30	-	-	20	50	
07	EEM-240	Seminar	SEC	2	-	-	4	30	-	-	20	50	
				Total	24							Total	600
Elective –III: EEM-204 Modelling and Simulation/ EEM-205 Advance Digital Signal Processing/EEM-216 Digital Communication / EEM-217 Image Processing Elective –IV: EEM-206 Smart sensors and Internet of Things/EEM-207 Embedded Systems/EEM-208 Digital Control System													

II Year

Third Semester													
S. No	Course No.	Course Name	Type of Course	CREDIT	Periods Per week			Examination Scheme (Distribution of Marks)					
					L	T	P	Mid Semester Evaluation			End Semester Evaluation	Total Marks	
								CCA	MSE-1	MSE-2			
01	-	Elective –V	SEC	4	3	1	-	10	15	15	60	100	
02	-	Elective –VI	CBCS	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB.)													
06	EEM-350	Minor Project	DC	8	-	-	16	120	-	-	80	200	
07	EEM-351	Biomedical and Healthcare Lab		2	-	-	4	30	-	-	20	50	
Total				18								450	
Elective –V: EEM-301 Digital Instrumentation/EEM-302 Wireless Sensor Networks/ EEM-310 Transducer Technology Elective –VI: EEM-303 Multi Sensor Data Fusion/ EEM-304 Healthcare Technologies / EEM-305 Non Linear Control System/ EEM-306 Advanced Power Electronics													
Fourth Semester													
01	EEM-450	Dissertation	DC	12	-	-	24	180	-	-	120	300	
Total				12								Total	300

Total Credits (22+24+18+12) = 76

