

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING****M.Tech. Power Control and Drives***For the students admitted from 2020-21***Scheduling of Courses****i) Knowledge Segments and Credits**

Every course of M. Tech Programme is placed in one of the seven categories as listed in Table 1 below. No semester shall have more than six lecture-based courses and two laboratory courses, and/or drawing/seminar/project courses in the curriculum.

Table 1: Credit distribution and the Knowledge Domains

Sl. No.	Category	Category Code	Number of Courses	Total Credits
1	Programme Core Courses	PCC	7	24
2	Laboratory Courses		2	2
3	Programme Elective Courses	PEC	5	15
4	Mandatory Credit Course (Research Methodology)	MCC	1	2
5	Seminar	PWS	2	4
6	Mini Project		1	2
7	Project		2	18
Total Mandatory Credits				67

*Note: 67 credits have been the requirement for award of degree in all M.Tech Programmes of the College which was approved by the University.

ii) Semester-wise Credit Distribution

Semester	I	II	III	IV	Total Credits
<i>Credits for Courses</i>	22	19	14	12	67



SEMESTER I								
Slot	Category Code	Course Number	KTU Course Number	Course Name	L	T	P	Credit
A	PCC	MA0P60B	01MA6021	Advanced Mathematics and Optimization Techniques	3	0	0	3
B	PCC	EE1P60A	01EE6101	Dynamics of Linear Systems	3	1	0	4
C	PCC	EE1P60B	01EE6301	Modelling of Electrical Machines	3	1	0	4
D	PCC	EE1P60C	01EE6501	Power Converter Circuits	3	0	0	3
E	PCC	EE1P60D	01EE6503	Advanced Signal Processing	3	0	0	3
S	MCC	MC0P60A	01EE6999	Research Methodology	0	2	0	2
U	PWS	EE1P69A	01EE6591	Seminar I	0	0	2	2
T	PCC	EE1P68A	01EE6593	Power Electronics Lab	0	0	2	1
Total					15	4	4	22

SEMESTER II								
Slot	Category Code	Course Number	KTU Course Number	Course Name	L	T	P	Credit
A	PCC	EE1P60E	01EE6302	Electric Drives	3	1	0	4
B	PCC	EE1P60F	01EE6502	Design Principles of Power Converters	3	0	0	3
C	PEC			Elective I	3	0	0	3
D	PEC			Elective II	3	0	0	3
E	PEC			Elective III	3	0	0	3
W	PWS	EE1P69B	01EE6592	Mini Project	0	0	4	2
T	PCC	EE1P68B	01EE6594	Drives and Simulation Lab	0	0	2	1
Total					15	1	6	19



ELECTIVE I

Slot	Category Code	Course Number	KTU Course Number	Course Name	L	T	P	Credit
C	PEC	EE1P61A	01EE6112	Process Control and Industrial Automation	3	0	0	3
		EE1P61B	01EE6412	New and Renewable Sources of Energy	3	0	0	3
		EE1P61C	01EE6512	Application of Power Electronics in Power Systems	3	0	0	3
		EE1P61D	01EE6514	Embedded Systems and Real Time Applications	3	0	0	3

ELECTIVE II

Slot	Category Code	Course Number	KTU Course Number	Course Name	L	T	P	Credit
D	PEC	EE1P62A	01EE6418	Flexible AC Transmission Systems	3	0	0	3
		EE1P62B	01EE6516	Microcontroller Applications in Power Electronics	3	0	0	3
		EE1P62C	01EE6518	Power Electronics for Renewable Energy Systems	3	0	0	3
		EE1P62D	01EE6522	Digital Simulation of Power Electronic Systems	1	2	0	3

ELECTIVE III

Slot	Category Code	Course Number	KTU Course Number	Course Name	L	T	P	Credit
E	PEC	EE1P63A	01EE6126	Soft Computing Techniques	3	0	0	3
		EE1P63B	01EE7315	Hybrid Electric Vehicles	3	0	0	3
		EE1P63C	01EE6524	Modern Power Converters	3	0	0	3



SEMESTER III								
Slot	Category Code	Course Number	KTU Course Number	Course Name	L	T	P	Credit
A	PEC	EE1PXXX		Elective IV	3	0	0	3
B	PEC	EE1PXXX		Elective V	3	0	0	3
U	PWS	EE1P79A	01EE7591	Seminar II	0	0	2	2
W	PWS	EE1P79B	01EE7593	Project (Phase – I)	0	0	12	6
Total					6	0	14	14

ELECTIVE IV

Slot	Category Code	Course Number	KTU Course Number	Course Name	L	T	P	Credit
A	PEC	EE1P71A	01EE7113	Advanced Instrumentation	3	0	0	3
		EE1P71B	01EE7511	Digital controllers in Power Electronics	3	0	0	3
		EE1P71C	01EE7411	EHVAC and DC Transmission	3	0	0	3
		EE1P71D	01EE7513	Power System Protection	3	0	0	3

ELECTIVE V

Slot	Category Code	Course Number	KTU Course Number	Course Name	L	T	P	Credit
B	PEC	EE1P72A	01EE7515	Switch Mode Power Converters	3	0	0	3
		EE1P72B	01EE6318	Finite Element Methods for Electrical Machines	3	0	0	3
		EE1P72C	01EE7121	Biomedical Instrumentation	3	0	0	3

SEMESTER IV								
Slot	Category Code	Course Number	KTU Course Number	Course Name	L	T	P	Credit
W	PWS	EE1P79C	01EE7594	Project Phase – II	0	0	24	12
Total					0	0	24	12