



Central University of Karnataka
(Established by an Act of the Parliament in 2009)
School of Engineering
Department of Electrical Engineering

Dept.: Electrical Engineering

M.Tech in PEE

Course Structure

2021 Batch

Course Structure for M.Tech in Power & Energy Engineering (PEE)

M.Tech Semester I								
In Sl. No	Course Code (tentative)	Course Type	Title	Credits	L+T+P	IA (40%)	End Sem. Exam (60 %)	Total Marks
1	PPETC10001	CC	Advanced Power Systems Analysis	4	3+1+0	40	60	100
2	PPETC10002	CC	Advanced Power Electronics and Drives	4	3+1+0	40	60	100
3	PPETC10003	CC	Distributed Generation and Microgrid	4	3+1+0	40	60	100
4	PPEPC10004	CP	Renewable Energy Lab	2	0+0+2	20	30	50
5	PPETD102xx (Selected form DSE List-1)	DES ¹	Discipline Specific Elective 1	3	2+1+0	30	45	75
6	PPETG10301	GE ¹	GE 1(Mathematics)	3	3+0+0	30	45	75
			Total	20	14+4+2	200	300	500

List of Discipline Specific Elective-1

S.No	Course Code	Course Title
1	PPETD10201	Distribution system automation & Control
2	PPETD10202	Power system reliability
3	PPETD10203	Advanced Control engineering
4	PPETD10204	High voltage generation and measurement
5	PPETD10205	Electric Vehicle
6.	PPETD10206	Power System Dynamics
7.	PPETD10207	AI applications to power system
8.	PPETD10208	Special Electric Machines



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M.Tech Semester II								
In Sl. No	Course Code (tentative)	Course Type	Title	Credits	L+T+P	IA (40%)	End Sem. Exam (60 %)	Total Marks
1	PPETC20005	CC	Smart Grid	4	3+1+0	40	60	100
2	PPETC20006	CC	Energy Storage Systems	4	3+1+0	40	60	100
3	PPETC20007	CC	EHV/UHV Engineering	4	3+1+0	40	60	100
4	PPEPC20008	CP	Power System Simulation Lab	2	0+0+2	20	30	50
5	PPETD202xx (Selected form DSE List-2)	DES ²	Discipline Specific Elective 2	3	2+1+0	30	45	75
6	PPETG20302	GE ²	General Elective 2 (Optimization)	3	2+0+0	30	45	75
Total				20	14+4+2	200	300	500

List of Discipline specific Elective-2

S.No	Course Code	Course Title
1	PPETD20209	Energy Auditing and Conservation
2	PPETD20210	Industrial instrumentations and Measurements
3	PPETD20211	Electricity acts and regulation
4	PPETD20212	Electric Power quality
5	PPETD20213	Solar Photo Voltaic Systems
6.	PPETD20214	Power System Planning
7.	PPETD20215	Industrial application of high voltage
8.	PPETD20216	Digital Control of Power Electronics Drive

Note: 1. In DES¹ more subjects can be added on the availability and interest of faculty from EE Dept.

2. GE¹ can be taken at Institute level or through MOOCs.

3. In DES² more subjects can be added on the availability and interest of faculty from EE Dept.

4. GE² can be taken at Institute level or through MOOCs



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M.Tech. Semester III

In Sl. No	Course Code (tentative)	Course Type	Title	Credits	L+T+P	IA (40%)	End Sem. Exam (60)	Total Marks
1	PPER30009	CC	M.Tech Project Phase 1	12	0+0+12	120	180	300
2	PPER30010	CC	Research Review paper	02	0+0+2	20	30	50
3	PPEIA30101	CC	Internship (which has to be taken up after second semester)	04	-	40	60	100
			Total	18	0+0+14	180	270	450

M.Tech. Semester IV								
In Sl. No	Course Code(ten tative)	Course Type	Title	Credits	L+T+P	IA (40%)	End Sem. Exam (60)	Total Marks
1	PPERC40011	CC	M.Tech Project Phase II	16	0+0+16	160	240	400
2	PPERC40012	CC	Research Review paper	02	0+0+2	20	30	50
			Total	18	0+0+18	180	270	450

Semester 1	Semester 2	Semester 3	Semester 4	Total
20	20	18	18	76

Note: CC= Core Course, CP = Core Practical, DSE = Discipline Specific Elective, GE = Generic Elective