

Government College of Engineering, Karad
SCHEME OF INSTRUCTION & SYLLABI

Scheme of Instruction for First Year of M. Tech. (PG) Degree in Electrical (Power Systems)
Semester- I (W.E.F. AY. 2023-24)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	PCC	PS2101	Power System Analysis	3	-	-	3	3	20	20	60	100
2	PCC	PS2102	Power System Dynamics	3	-	-	3	3	20	20	60	100
3	PEC	PS21*3	Program Elective I	3	-	-	3	3	20	20	60	100
4	PEC	PS21*4	Program Elective II	3	-	-	3	3	20	20	60	100
5	MDC	PS2105	Research Methodology	2	-	-	2	2	20	20	60	100
6	PCC	PS2106	Renewable Energy Laboratory	-	-	4	4	2	-	25	25	50
7	PEC	PS2107	Advanced Simulation Laboratory	-	-	4	4	2	-	50	-	50
8	OEC	OE21*8	Open Elective	3	-	-	3	3	20	20	60	100
9	MNC	AU21*9	Audit Course I	2	-	-	2	Audit	-	-	-	-
			Total	19	-	8	27	21	120	195	385	700

L- Lecture

T-Tutorial

P-Practical

MSE- Mid Semester Examination

ISE- In Semester Evaluation

ESE- End Semester Examination (For Laboratory End Semester performance)

*-Program Elective- I and II, Audit Course I, Open Elective list is provided at the end of structure.

Government College of Engineering, Karad
SCHEME OF INSTRUCTION & SYLLABI
Scheme of Instruction for First Year of M. Tech. (PG) Degree in Electrical (Power Systems)
Semester-II (W.E.F.AY. 2023-24)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	PCC	PS2201	Digital Protection of Power System	3	-	-	3	3	20	20	60	100
2	PCC	PS2202	Real Time control of Power System	3	-	-	3	3	20	20	60	100
3	PEC	PS22*3	Program Elective III	3	-	-	3	3	20	20	60	100
4	PEC	PS22*4	Program Elective IV	3	-	-	3	3	20	20	60	100
5	PEC	PS22*5	Program Elective V	3	-	-	3	3	20	20	60	100
6	PCC	PS2206	Laboratory 3 (Based on Elective III)	-	-	4	4	2	-	25	25	50
7	PCC	PS2207	Laboratory 4 (Based on Elective IV & V)	-	-	4	4	2	-	50	-	50
8	P/S/IT	PS2208	Mini Project/ Industrial Training	-	-	4	4	2	-	100	-	100
9	MNC	AU22*9	Audit Course II	2	-	-	2	Audit	-	-	-	-
			Total	17	-	12	29	21	100	225	325	700

L- Lecture

T-Tutorial

P-Practical

MSE- Mid Semester Examination

ISE- In Semester Evaluation

ESE- End Semester Examination (For Laboratory End Semester performance)

*-Program Elective- III, IV and V, Audit Course III list is provided at the end of structure.

Government College of Engineering, Karad

SCHEME OF INSTRUCTION & SYLLABI Scheme of Instruction for Second Year of M. Tech. (PG) Degree in Electrical (Power Systems) Semester – III (W.E.F.AY. 2024-25)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	P/S/IT	PS2301	Dissertation Phase-I	-	-	14	14	07	-	100	100	200
2	MOOC	PS2302	MOOPS / OPEN COURSE (8-12 weeks)	-	-	-	-	03	-	-	-	-
Total				00	00	14	14	10	-	100	100	200

Note:

1. PS3302 will be decided by respective Guide in Consultation with Program Coordinator. Course is mandatory for student and candidate dissertation phase I will be considered incomplete without this Mandatory MOOC Course.
2. In Case, the course offered online is not completely relevant with the topic of dissertation then any courses suggested by NASSCOM on recent technologies can be opted by candidate.

L- Lecture

T-Tutorial

P-Practical

MSE- Mid Semester Examination

ISE- In Semester Evaluation

ESE- End Semester Examination (For Laboratory End Semester performance)

Government College of Engineering, Karad
SCHEME OF INSTRUCTION & SYLLABI

Scheme of Instruction for Second Year of M. Tech. (PG) Degree in Electrical (Power Systems)
Semester– IV (W.E.F.AY. 2024-25)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	P/S/IT	PS2401	Dissertation Phase-II	-	-	32	32	16	-	100	200	300
			Total	-	-	32	32	16	-	100	200	300

L- Lecture

T-Tutorial

P-Practical

MSE- Mid Semester Examination

ISE- In Semester Evaluation

ESE- End Semester Examination (For Laboratory End Semester performance)

Government College of Engineering, Karad

SCHEME OF INSTRUCTION & SYLLABI Scheme of Instruction for First Year of M.Tech.(PG) Degree in Electrical (Power Systems) List of Electives

Program Elective I Semester-I	Program Elective II Semester-I	Program Elective III Semester-II	Program Elective IV Semester-II	Program Elective V Semester-II
PS2113: Control of Converters	PS2114: Electrical Power Distribution Systems	PS2213: Restructured Power System	PS2214: Power Quality	PS2215: Power System Transients
PS2123: High Power Converters	PS2124: Smart Grid	PS2223: Dynamics of Machines	PS2224: FACTS and Power Devices	PS2225: AI Techniques
PS2133: Non-conventional Energy Systems	PS2134: Electric and Hybrid Vehicle	PS2233: Power Apparatus and Devices	PS2234: SCADA Systems and Applications	PS2235: Industrial Load Modeling and Control

Audit Course I Semester-I	Audit Course II Semester II	Open Elective Semester-I
AU2119: Research Paper Writing	AU2219: Constitution of India	OE2118: Business Analytics
AU2129: Disaster Management	AU2229: Pedagogy Studies	OE2128: Industrial Safety
AU2139: Sanskrit for Technical Knowledge	AU2239: Stress Management by Yoga	OE2138: Operations Research
AU2149: Value Education	AU2249: Personality Development through Life Enlightenment Skills	OE2148: Cost Management of Engineering Projects
		OE2158: Composite Materials
		OE2168: Waste to Energy

