Government College of Engineering, Karad

SCHEMEOFINSTRUCTION&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	ContactHrs/Wk	Credits	EXAMSCHEME			
									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	RM2105	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	ContactHrs/Wk	Credits	EXAMSCHEME			
									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	Laboratory3(Based on Elective III)	-	-	4	4	2	-	25	25	50
7	PCC	PS2207	Laboratory4(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 II 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. 2025-26)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	ContactHrs /Wk	Credits	EXAMSCHEME			
									MSE	ISE	ESE	TOTAL
1	P/S/IT	PS2301	Dissertation Phase-I	-	-	14	14	07	-	100	100	200
2	MOOC	PS2302	MOOCs / OPEN COURSE (8-12weeks)	-	-	-	-	03	-	-	100	100
			Total	00	00	14	14	10	-	100	200	300

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 are not completely relevant with the topic of dissertation then any course suggested by NASSCOM on recent technologies can be opted by candidate.

3. In Case, the student fails to complete MOOC courses due to some unavoidable circumstances or medical problems, presentation of dissertation phase-I may be carried out if student's dissertation related work is satisfactory. But their results should be kept pending till he/she will complete MOOC courses by doing registration

4. The student is eligible for final presentation of dissertation phase II, only if he/she has passed the MOOC courses

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)
Semester-II (W.E.F.AY. 2023-24)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAMSCHEME			
									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	Program Elective II	Program Elective III	Program Elective IV	Program Elective V
Semester-I	Semester-I	Semester-II	Semester-II	Semester-II
PS2113: Smart Grid	PS2114: Electrical Power Distribution Systems	PS2213: Restructured Power System	PS2214:Power Quality	PS2215: Power System Transients
PS2123: High Power Converters	PS2124: Control of Converters	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	Audit Course II	Open Elective
Semester–I	Semester II	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