

Swarnim Startup and Innovation University
Swarnim Institute of Technology - M.Tech Electrical Engineering
Department of Electrical Engineering
First year Engineering teaching syllabus & examination pattern

Semester - 1												
Sr. No.	Subject Code	Subject Name	Credit	Teaching scheme per week				Examination				Total
				Th	Tut	Practical	Total	Internal		External		
								Th	Pr	Th	Pr	
1	24010101	Applied Linear Algebra	5	3	2	0	5	30	20	70	30	150
2	24010102	Power Electronics	5	4	0	2	6	30	20	70	30	150
3	24010103	Computer Methods in Advanced Power System Analysis	5	4	0	2	6	30	20	70	30	150
4		Major Elective - I	5	4	0	2	6	30	20	70	30	150
5	24010001	Research Skills	4	0	4	0	4	0	50	-	50	100
6	23000007	Introducation to Entrepreneurship	2.5	2	0	1	3	0	50	0	50	100
		Total	26.5	17	6	7	30	120	180	280	220	800

Subject Code	Major Elective I
24010104	Advanced Power System Protection and Switchgear
24010105	Electrical Drives
24010106	Instrumentation

KRM
29/6/2020

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Semester - 2												
Sr. No.	Subject Code	Subject Name	Credit	Teaching scheme per week				Examination				Total
				Th	Tut	Practical	Total	Internal		External		
								Th	Pr	Th	Pr	
1	24010201	Modern Control Systems	5	3	2	0	5	30	20	70	30	150
2	24010202	Electrical Machine Modeling and Analysis	5	3	2	0	5	30	20	70	30	150
3		Major Elective - II	6	3	2	2	7	30	20	70	30	150
4		Major Elective - III	5	3	2	0	5	30	20	70	30	150
5		Inter Dept Elective	5	3	2	0	5	30	20	70	30	150
6	23000013	Preparing Winder Horizon for Entreprenuer	2.5	2	0	1	3	0	50	0	50	100
		Total	28.5	17	10	3	30	150	150	350	200	850

Subject Code	Major Elective II
24010203	FACTS
24010204	Power System Management & Optimization
24010205	Advanced Power Convertors
24010206	Digital Control System
24010207	Non-linear Control System

Subject Code	Major Elective III
24010208	Power System Transients
24010209	Artificial Intelligent Application to Power System
24010210	Application of Power Electronics to Power System
24010211	Industrial Electronics and Instrumentation
24010212	Adaptive Control
24010213	Robotics and Automation

Subject Code	Inter Dept Elective
24010214	Digital Signal Processing for Power Electronics
24010215	Economics of Energy Generation & Supply

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Department of Electrical Engineering
Second year Engineering teaching syllabus & examination pattern

Sr. No.	Subject Code	Subject Name	Credit	Semester - 3							
				Teaching scheme per week				Examination			
				Th	Tut	Practical	Total	Internal		External	
1		Major Elective - IV						Th	Pr	Th	Pr
2	24000001	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	5	3	2	0	5	30	20	70	30
3	24000002	Internal Review\$	2	0	2	0	2	0	100	0	0
4	24000003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	2	0	2	0	2	0	100	0	0
5	23000014	Entrepreneurial Motivation	9	0	0	18	18	0	0	0	100
			2.5	2	0	1	3	0	50	0	50
		Total	20.5	5	6	19	30	30	270	70	180
											550

Subject Code	Major Elective - IV
24010301	Power Quality issues and their mitigation Techniques in power systems
24010302	Power System Dynamics and Control
24010303	Advanced Control Techniques for Electrical Machines
24010304	Modeling and Analysis of Power Converters
24010305	Intelligent Control
24010306	Advanced microcontroller

Sr. No.	Subject Code	Subject Name	Credit	Semester - 4							
				Teaching scheme per week				Examination			
				Th	Tut	Practical	Total	Internal		External	
1		Major Elective - V						Th	Pr	Th	Pr
2	24000006	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	5	3	2	0	5	30	20	70	30
3	24000004	External Mid Sem Review (Brief Lit. Rev, Problem Statement and Major Outcomes)	2	0	2	0	2	0	100	0	0
4	24000005	Dissertation Phase- II	0	0	0	0	0	0	0	0	100
5	23000017	Project Feasibility and Marketing Skills	10	0	0	20	20	0	0	0	100
			2.5	2	0	1	3	0	50	0	50
		Total	19.5	5	4	21	30	30	170	70	280
											550

Subject Code	Major Elective - V
24010401	Smart Grid Technology and Applications
24010402	Power System Restructuring
24010403	Power Quality
24010404	Power Electronics for Renewable Energy Systems
24010405	Robust & Optimal Control

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