



D Y PATIL

DEEMED TO BE

UNIVERSITY

SCHOOL *of* ENGINEERING
& MANAGEMENT
KOLHAPUR

B. Tech. Electrical Engineering

Structure

w. e. f. A.Y.: 2024-25

F.Y. B. Tech Electrical Engineering Structure 2024-25

SEMESTER – I												
Course Category	Course Type	Course Name	Credits	Teaching Scheme			Theory			Practical		Total Marks
				L	P	T	ISE	MSE	ESE	INT	OE/ PoE	
Basic Sciences	BSC	Linear Algebra & Calculus	4	3	-	1	20	30	50	25	-	125
	BSC	Applied Chemistry	4	3	2	-	20	30	50	25	-	125
Engineering Science	ESC	Problem Solving through Programming	4	3	2	-	20	30	50	25	-	125
Ability Enhancement Course	AEC	Professional Communication	2	1	2	-	25	-	-	25	-	50
Vocational Skills Enhancement Course	VSEC	Python Programming	2	1	2	-	25	-	-	25	-	50
Indian Knowledge System	IKS	Historical Places in and Around Kolhapur District	2	2	-	-	20	30	-	-	-	50
Co-Curricular Activities	CCA	Liberal Learning - I	2	-	4	-	-	-	-	50	-	50
Mandatory Course	MC	Finishing School Training - I	-	3	-	-	50	-	-	-	-	Grade
		Rural/Social Internship	-	-	-	-	-	-	-	50	-	Grade
		Total	20	13	12	1	180	120	150	225	-	575
SEMESTER – II												
Basic Sciences	BSC	Differential Equations & Numerical Techniques	4	3	-	1	20	30	50	25	-	125
	BSC	Applied Physics	4	3	2	-	20	30	50	25	-	125
Engineering Science	ESC	Generative AI	4	3	2	-	20	30	50	25	-	125
	ESC	Digital Logic Design	4	3	2	-	20	30	50	25	-	125
Co-Curricular Activities	CCA	Liberal Learning - II	2	-	4	-	50	-	-	-	-	50
Program Core Courses	PCC	Basics of Analog Electronics	2	2	-	-	-	-	50	-	-	50
Vocational Skills Enhancement Cours	VSEC	Design Thinking Through Innovation	2	1	2	-	25	-	-	25	-	50
Mandatory Course	MC	Capstone Project	-	-	-	-	-	-	-	50	-	Grade
		Finishing School Training - II	-	3	-	-	50	-	-	-	-	Grade
		Total	22	15	12	1	205	120	250	175	-	650



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Teaching and Evaluation Scheme from Year 2023-24 (as per NEP-2020)

Department of Electrical Engineering

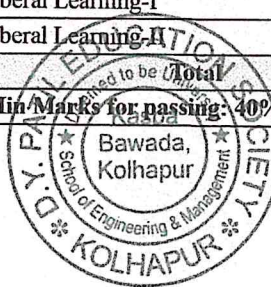
S.Y B.Tech SEMESTER-III

Course Code	Course Category	Course Type	Course Name	Teaching Scheme				Theory			Practical		Total Marks
				Credits	L	P	T	ISE	MS E	ESE	INT	OE/ PoE	
23ELEU3P01	Program Core Courses	PCC	Electrical Measurement and Instrumentation	3	3	-	-	20	30	50	-	-	100
23ELEU3P02			Electric Circuit Analysis	3	3	-	-	20	30	50	-	-	100
23ELEU3P03			Applied Mathematics	2	2	-	-	20	30	50	-	-	100
23ELEU3P04			Electrical Measurement and Instrumentation Lab	1	-	2	-	-	-	-	25	25	50
23ELEU3P05			Electric Circuit Analysis Lab	1	-	2	-	-	-	-	25	25	50
23ELEU3F06	Comm.Engg. Project(CEP)/Field Project (FP)	CEP/FP	Society based Mini- Project	2	-	4	-	-	-	-	50	-	50
23ELEU3M07	Multidisciplinary Minor	MDM-1	Fundamental and Architecture of Electric Vehicle	2	2	-	-	-	-	50	-	-	50
23ELEU3V08	Value Education Course	VEC	Personal Values and Ethics	2	2	-	-	50	-	-	-	-	50
23ELEU3O09	Open Elective Course	OEC-1	Basic Electric Circuits (ODL)	3	3	-	-	20	30	50	-	-	100
23ELEU3O10			Basic Electric Circuits Lab (ODL)	1	-	2	-	-	-	-	25	-	25
23ELEU3H11	Humanities Social Science and Management	Entrepreneurship/ Economics/ Management course	Financial Management	2	2	-	-	50	-	-	-	-	50
23ELEU3D12	Mandatory Course	MC	Finishing School Training III	Audit	3*	-	-	50	-	-	-	-	Grade
23ELEU3C13	Co-Curricular Activities	CCA	Liberal Learning-I	Audit	2#	-	-	50	-	-	-	-	Grade
23ELEU3C14			Liberal Learning-II										
			Total	22	17	10		280	120	250	125	50	725

*-Values not included in total, #2 contact hrs per club, Min Marks for passing: 40% of total marks of individual course

[Signature]

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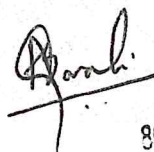
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S.Y B.Tech SEMESTER-IV

S.Y B.Tech SEMESTER-IV													
Course Code	Course Category	Course Type	Course Name	Teaching Scheme				Theory			Practical		Marks
				Credits	L	P	T	ISE	MSE	ESE	INT	OE/POE	
			DC Machines and Transformers	3	3	-	-	20	30	50	-	-	100
23ELEU4P01	ProgramCore Courses	PCC	Power Electronics	3	3	-	-	20	30	50	-	-	100
23ELEU4P02			Generation, Transmission & Distributions	2	2	-	-	20	30	50	-	-	100
23ELEU4P03			DC Machine and Transformers Lab.	1		2	-	-	-	-	25	25	50
23ELEU4P04			Power ElectronicsLab	1		2	-	-	-	-	25	25	50
23ELEU4P05													
23ELEU4M06	Multidisciplinary Minor	MDM-2	Energy Storage System for Electric Vehicles	2	2	-	-	-	-	50	-	-	50
23ELEU4V07	Value Education Course	VEC (Environmental Study)	Environmental Studies	2	2	-	-	-	-	50	-	-	50
23ELEU4H08	Humanities Social Science Management	Entrepreneurship /Economics/ Management course	Industrial Management & Startups	2	2	-	-	50	-	-		-	50
23ELEU4A09	Ability Enhancement course	AEC	Electronics Workshop	2	1	2	-	-	-	-	25	25	50
23ELEU4O10	Open Elective Course	OEC-II	Basics of Energy Auditing and Management	2	2	-	-	-	-	50	-	-	50
23ELEU4N11	Vocational Skills Enhancement Course	VSEC	Model Based Programming & Simulation	2	-	2	-	-	-	-	25	25	50
23ELEU4D12	MandatoryCourse	MC	Finishing School Training IV	Audit	2*	-	-	50	-	-	-	-	Grade*
23ELEU4C13	Co-Curricular Activities	CCA	Liberal Learning-I	Audit	2#	-	-	50	-	-	-	-	Grade*
23ELEU4C14			Liberal Learning-II										
			Total	22	17	8	-	210	90	300	100	100	700
23ELEU4Z01	Honors Courses/Double (Minor)	HC(Optional)	Honors Paper-I (ODL only) Transducers and Signal Conditioning	4	4	-	-	20	30	50	-	-	100

*-Values not included in total, #-2 contact hrs per club, Min Marks for passing: 40% of total marks of individual course


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Department of Electrical Engineering

T.Y B.Tech SEMESTER V

Course Code	Course Category	Course Type	CourseName	Teaching Scheme				Theory			Practical		Total Marks
				Credits	L	P	T	ISE	MSE	ESE	INT	OE/PoE	
23ELEU5P01	Program Core Courses	PCC	Signal & Systems	3	3	-	-	20	30	50	-	-	100
23ELEU5P02			AC Machines	3	3	-	-	20	30	50	-	-	100
23ELEU5P03			Feedback control System	4	4	-	-	20	30	50	-	-	100
23ELEU5P04			Signal & Systems Lab	1	-	2	-	-	-	-	25	50	75
23ELEU5P05			AC Machines Lab	1	-	2	-	-	-	-	25	50	75
23ELEU5M06	Multidisciplinary Minor	MDM-3	Electric Drives and Controllers for Electric Vehicles	3	3	-	-	20	30	50	-	-	100
23ELEU5M07			Electric Drives and Controllers for EV Lab	1	-	2	-	-	-	-	25	-	25
23ELEU5O08	Open Elective	OCE-III	PLC & SCADA	2	2	-	-	-	-	50	-	-	50
23ELEU5E09	Professional Elective	PEC1	Renewable Energy Systems	4	4	-	-	20	30	50	-	-	100
23ELEU5E10			Analog and Digital Circuit										
23ELEU5E11			Electrical Distribution Systems										
23ELEU5D12	Mandatory Course	MC	Finishing School Training V	Audit	3*	-	-	50	-	-	-	-	Grade
23ELEU5C13	Co-Curricular Activities	CCA	Liberal Learning-I	Audit	2#	-	-	50	-	-	-	-	Grade
23ELEU5C14			Liberal Learning-II										
			Total	22	19	6	-	200	150	300	75	100	725
23ELEU5Z02	Honors Courses/Double (Minor)	HC (Optional)	Honors Paper-II (ODLonly) Control Systems	4	4	-	-	20	30	50	-	-	100

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T.Y B.Tech SEMESTER VI

Course Code	Course Category	Course Type	Course Name	Teaching Scheme				Theory			Practical		Total Marks
				Credits	L	P	T	ISE	MSE	ESE	INT	OE/PoE	
23ELEU6P01	Program Core Courses	PCC	High Voltage Engineering	3	3	-	-	20	30	50	-	-	100
23ELEU6P02			Power System Analysis	3	3	-	-	20	30	50	-	-	100
23ELEU6P03			Electromagnetic Engineering	2	2	-	-	-	-	50	-	-	50
23ELEU6P04			High Voltage Engineering Lab	1	-	2	-	-	-	-	25	25	50
23ELEU6P05			Power System Analysis Lab.	1	-	2	-	-	-	-	25	25	50
23ELEU6M06	Multidisciplinary Minor	MDM-4	Plug in Electric Vehicles in Smartgrid	2	2	-	-	-	-	50	-	-	50
23ELEU6E07	Professional Elective	PEC-2	Power System Economics And Control Techniques	3	3	-	-	20	30	50	-	-	100
23ELEU6E08			Microcontroller & Application										
23ELEU6E09			Industrial Automation										
23ELEU6E10		PEC-2	Power System Economics And Control Techniques Lab	1	-	2	-	-	-	-	25	-	25
23ELEU6E11			Microcontroller & Application Lab										
23ELEU6E12			Industrial Automation Lab										
23ELEU6E13		PEC-3	Illumination Engineering	4	4	-	-	20	30	50	-	-	100
23ELEU6E14			Automotive Electrical and Electronics System										
23ELEU6E15			Smart Grid Technology										
23ELEU6N16	Vocational Skills Enhancement Course	VSEC	Data Structures & Algorithms using C++	2	1	2	-	-	-	-	25	25	50
23ELEU6D17	Mandatory Course	MC	Finishing School Training VI	Audit	3*	-	-	50	-	-	-	-	Grade
23ELEU6C18	Co-Curricular Activities	CCA	Liberal Learning-I	Audit	2#	-	-	50	-	-	-	-	Grade
23ELEU6C19			Liberal Learning-II										
Total				22	18	8	-	180	120	300	100	75	675
23ELEU6Z03	Honors Courses/Double (Minor)	HC (Optional)	Honors Paper-III (ODL) Process Control Engineering	4	4	-	-	20	30	50	-	-	100

Values not included in total,

#-2 contact hrs per club

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