ANNEXURE - I

PERI INSTITUTE OF TECHNOLOGY

(AUTONOMOUS)

REGULATIONS 2024

B.E. ELECTRICAL AND ELECTRONICS ENGINEERING

SEMESTER - I

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24HSS01	Life Skills - I	EEC	1	0	0	1	1
2.	24GSS01	Personal and Professional Competencies for Engineers	EEC	1	0	0	1	1
3.	24MA101	Engineering Mathematics-I	BSC	3	1	0	4	4
4.	24ECC01	Embedded C Programming	ESC	3	0	0	3	3
5.	24MEC01	Engineering Graphics and Design	ESC	2	0	4	6	4
6.	24EE101	Introduction to Electrical and Electronics Engineering	PCC	3	0	0	3	3
LAB INTEGRATED COURSE								
7.	24PH102	Physics for Electronics Engineering	BSC	3	0	2	5	4
PRACTICALS								
8.	24ECC02	Embedded C Programming laboratory	ESC	0	0	4	4	2
9.	24HS101	Communication Lab - I	HSMC	0	0	2	2	1
			TOTAL	**16**	**1**	**12**	**29**	**23**

SEMESTER - II

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODSPER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24HSS02	Life Skills - II	EEC	1	0	0	1	1
2.	24HS203	Tamils and Technology	HSMC	1	0	0	1	1
3.	24EEC01	Basic Electrical and Electronics Engineering	ESC	4	0	0	4	4
4.	24ECC03	Embedded Python Programming	ESC	3	0	0	3	3
LAB INTEGRATED COURSE								
5.	24CY101	Engineering Chemistry	BSC	3	0	2	5	4
6.	24MA202	Engineering Mathematics - II	BSC	3	0	2	5	4
PRACTICALS								
7.	24MEC02	IDEA Lab	ESC	0	0	4	4	2
8.	24ECC04	Embedded Python Programming lab	ESC	0	0	4	4	2
9.	24HS202	Communication Lab - II	HSMC	0	0	2	2	1
MANDATORY COURSE								
10.	24GSM01	Environmental Science and Engineering	MC	2	0	0	2	0
			TOTAL	**17**	**0**	**14**	**31**	**22**

SEMESTER - III

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24MA305	Probability and Complex Functions	BSC	3	1	0	4	4
2.	24EE302	Electric Circuits and Networks	PCC	3	0	0	3	3
3.	24EE303	Electrical Machines - I	PCC	3	0	0	3	3
4.		Open Elective -I	OEC	3	0	0	3	3
5.	24HSS03	Life Skill – III Basic Conversion Skills	EEC	1	0	0	1	1
6.	24GSS03	Holistic Personality Development and Behavioral Skills	EEC	1	0	0	1	1
LAB INTEGRATED COURSE								
7.	24CS306	Data Structures	ESC	3	0	2	5	4
8.	24EE304	Digital Logic Circuits	PCC	3	0	2	5	4
PRACTICALS								
9.	24EE305	Electrical Circuits Laboratory	PCC	0	0	3	3	1.5
10.	24EE306	Electrical Machines - I Laboratory	PCC	0	0	3	3	1.5
		TOTAL		**20**	**1**	**10**	**31**	**26**

SEMESTER - IV

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24EE407	Analog Electronics and Linear Integrated circuits	PCC	3	0	0	3	3
2.	24EE408	Control Systems	PCC	3	1	0	3	4
3.	24EE409	Electrical Machines - II	PCC	3	0	0	3	3
4.		Professional Elective -I	PEC	3	0	0	3	3
5.		Open Elective -II	OEC	3	0	0	3	3
6.	24HSS04	Life Skills - IV Public Speaking Practices	EEC	1	0	0	1	1
7.	24GSS02	Invention – Principles and Practices	EEC	1	0	0	1	1
LAB INTEGRATED COURSE								
8.		Professional Elective -II	PEC	3	0	2	5	4
PRACTICALS								
9.	24EE410	Electronics and Linear Integrated Circuits Laboratory	PCC	0	0	3	3	1.5
10.	24EE411	Electrical Machines – II Laboratory	PCC	0	0	3	3	2
11.	24EE412	Control and Instrumentation Lab	PCC	0	0	3	3	2
TOTAL				**20**	**1**	**07**	**27**	**27.5**

SEMESTER - V

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24EE513	Generation, Transmission and Distribution	PCC	3	0	0	3	3
2.	24EE514	Microprocessor and Interfacing Techniques	PCC	3	0	0	3	3
3.	24EE515	Power Electronics	PCC	3	0	0	3	3
4.		Professional Elective - III	PEC	3	0	0	3	3
5.		Open Elective - III	OEC	3	0	0	3	3
6.	24HSS05	English for Competitive Exam	EEC	2	0	0	2	2
LAB INTEGRATED COURSE								
8.		Professional Elective - IV	PEC	3	0	2	5	4
PRACTICALS								
9.	24EE516	Power Electronics and Drives Laboratory	PCC	0	0	3	3	1.5
10.	24EE517	Microprocessor and Interfacing Techniques Laboratory	PCC	0	0	3	3	1.5
MANDATORY COURSE								
11	24GSM04	Essence of Indian Traditional Knowledge and Science	MC	0	0	1	1	0
		TOTAL		**19**	**0**	**09**	**28**	**24**

SEMESTER - VI

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24EE618	Protection and Switch Gear	PCC	3	0	0	3	3
2.	24EE619	Measurements and Instrumentation	PCC	3	0	0	3	3
3.	24EE620	Power System Analysis and Control	PCC	3	0	0	3	3
4.		Professional Elective -V	PEC	3	0	0	3	3
5.		Open Elective -IV	OEC	3	0	0	3	3
6.	24HSS06	Career Awareness And Professional Profile Building For Electrical Engineers	EEC	1	0	0	1	1
LAB INTEGRATED COURSE								
7.		Professional Elective - VI	PEC	3	0	2	5	4
PRACTICALS								
8.	24EE621	Power System Simulation Laboratory	PCC	0	0	3	3	1.5
9.	24EE622	Applied Engineering Project	PCC	0	0	3	3	2
MANDATORY COURSE								
10	24GSM05	Behavioral Science and Phycology	MC	1	0	0	1	0
TOTAL				**20**	**0**	**08**	**28**	**23.5**

SEMESTER - VII

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Professional Elective -VII	PEC	3	0	0	3	3
2.		Management Elective Course	HSMC	3	0	0	3	3
3.	24HS704	Human Values and Ethics	HSMC	3	0	0	3	3
LAB INTEGRATED COURSE								
4.		Professional Elective -VIII	PEC	3	0	2	5	4
5.		Professional Elective - IX	PEC	3	0	2	5	4
PRACTICALS								
6.	24EE723	Capstone Project Phase - I	EEC	0	0	0	0	4
			TOTAL	15	0	4	19	**21**

SEMESTER - VIII

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
LAB INTEGRATED COURSE								
PRACTICALS								
	24EE824	Internship	EEC	0	0	0	0	2
1.	24EE825	Capstone Project Phase - II	EEC	0	0	0	0	8
			TOTAL	0	0	0	0	**10**

PROFESSIONAL ELECTIVES

Vertical I: Power Engineering

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1.	24EEE01	HVDC and FACTS	PEC	3	0	0	3	3
2.	24EEE02	Restructured Power Market -	PEC	3	0	0	3	3
3.	24EEE03	Under Ground Cable Engineering	PEC	3	0	0	3	3
4.	24EEE04	Substation Engineering and Automation	PEC	3	0	0	3	3
5.	24EEE05	Power Quality	PEC	3	0	0	3	3
6.	24EEE06	Smart Grids	PEC	3	0	0	3	3
7.	24EEE07	Power Converters for Modern Power System	PEC	3	0	0	3	3

Vertical II: Converters and Drives

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1.	24EEE08	Electrical Drives	PEC	3	0	2	5	4
2.	24EEE09	SMPS and UPS	PEC	3	0	2	5	4
3.	24EEE10	Analysis of Electrical Machines	PEC	3	0	2	5	4
4.	24EEE11	Multilevel Power Converters	PEC	3	0	2	5	4
5.	24EEE12	Power Electronics for Renewable Energy Systems	PEC	3	0	2	5	4
6.	24EEE13	Special Electrical Machines	PEC	3	0	2	5	4
7.	24EEE14	Design Installation and Commisioning of Solar and Wind Energy Systems	PEC	3	0	2	5	4

Vertical III: Embedded Systems

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1.	24EEE15	Embedded Control for Electric Drives	PEC	3	0	2	5	4
2.	24EEE16	Smart System Automation	PEC	3	0	2	5	4
3.	24EEE17	Embedded C Programming	PEC	3	0	2	5	4
4.	24EEE18	Embedded Processors	PEC	3	0	2	5	4
5.	24EEE19	MEMS and NEMS	PEC	3	0	2	5	4
6.	24EEE20	Embedded System Design	PEC	3	0	2	5	4
7.	24EEE21	Electrical CAD	PEC	3	0	2	5	4

Vertical IV: Electric Vehicle Technology

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1.	24EEE22	Design of Electric Vehicle Charging System	PEC	3	0	2	5	4
2.	24EEE23	Testing of Electric Vehicles	PEC	3	0	2	5	4
3.	24EEE24	Design of Motor and Power Converters for Electric Vehicles	PEC	3	0	2	5	4
4.	24EEE25	Intelligent control of Electric Vehicles	PEC	3	0	2	5	4
5.	24EEE26	Grid Integration of Electric Vehicles	PEC	3	0	0	3	3
6.	24EEE27	Electric Vehicle Architecture	PEC	3	0	0	3	3
7.	24EEE28	Electric Vehicle Design	PEC	3	0	2	5	4

Vertical V: **Advanced Control**

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1.	24EEE29	Model Based Control	PEC	3	0	0	3	3
2.	24EEE30	Non-Linear Control	PEC	3	0	0	3	3
3.	24EEE31	Computer Control of Processes	PEC	3	0	0	3	3
4.	24EEE32	Process Modeling and Simulation	PEC	3	0	0	3	3
5.	24EEE33	Optimal Control	PEC	3	0	0	3	3
6.	24EEE34	Machine Monitoring System	PEC	3	0	0	3	3
7.	24EEE35	PLC and SCADA Systems	PEC	3	0	2	5	4

Vertical VI: **Diversified Courses**

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1.	24EEE36	High Voltage Engineering	PEC	3	0	0	3	3
2.	24EEE37	Sustainable and Environmental Friendly HV Insulation System	PEC	3	0	0	3	3
3.	24EEE38	Hybrid Energy Technology	PEC	3	0	0	3	3
4.	24EEE39	Grid integrating Techniques and Challenges	PEC	3	0	2	5	4
5.	24EEE40	Design and Modelling of Renewable Energy Systems	PEC	3	0	0	3	3
6.	24EEE41	Energy Storage Systems	PEC	3	0	0	3	3
7.	24EEE42	Power System Transients	PEC	3	0	0	3	3

PERI Institute of Technology

OPEN ELECTIVE COURSES: VERTICALS

Offered by CIVIL		Offered by CSE		Offered by ECE		Offered by EEE		Offered by MECH	
Sub Code	Sub Title	Sub Code	Sub Title	Sub Code	Sub Title	Sub Code	Sub Title	Sub Code	Sub Title
24CEO01	Fundamental of Civil Engineering Drawing and Drafting	24CSO01	Basic Python Programming	24ECO01	Digital System Design with Verilog	24EEO01	Computer aided Electrical Design	24MEO01	AutoCAD
24CEO02	Advanced CAD based Civil Engineering Drawing Laboratory	24CSO02	Advanced Python Programming	24EC512	Microcontroller and Embedded System	24EEO02	Grid Interactive Non-conventional energy resources Techniques	24MEO02	Solid Works
24CEO03	Civil Engineering Modeling Laboratory	24CSO03	Core Java Programming	24ECO02	Embedded Systems with IoT Applications	24EEO03	Industrial Automation using PLC and SCADA	24MEO03	ANSYS
24CEO04	Computational Structural Analysis Laboratory	24ADE12	Advanced Java Programming	24ECO03	Introduction to VLSI and MEMS Technology	24EEO04	Fundamentals of Electric Vehicle Architecture	24MEC04	Mechanical Electrical and Plumbing Engineering
		24AD304	Fundamentals of Artificial Intelligence						
		24CSO04	Artificial Intelligence and Machine Learning fundamentals						
		24CSO05	IoT Concepts and Applications						
		24AD507	Database						

			Management System						
		24CSE08	Advanced Database Management System						
		24AM301	Principles Of Artificial Intelligence						

MANAGEMENT ELECTIVE

S. NO.	COURSE CODE	COURSETITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	24HSE01	Economics for Electronics Engineers	HSMC	3	0	0	3	3
2	24HSE02	Cost Management for Engineering Projects	HSMC	3	0	0	3	3
3	24HSE03	Industrial Management	HSMC	3	0	0	3	3
4	24HSE04	Business Basic for Entrepreneur	HSMC	3	0	0	3	3
5	24HSE05	Entrepreneurship Management	HSMC	3	0	0	3	3
6	24HSE06	Resource Management Techniques	HSMC	3	0	0	3	3
7	24HSE07	Management Theory and Practice	HSMC	3	0	0	3	3
8	24HSE08	Accounting and Finance	HSMC	3	0	0	3	3