ANNEXURE - I

PERI INSTITUTE OF TECHNOLOGY

(AUTONOMOUS)

REGULATIONS 2024

B.E. ELECTRONICS AND COMMUNICATION ENGINEERING

SEMESTER – I

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24SH108106	Life Skills - I	EEC	1	0	0	1	1
2.	24SH108108	Personal and Professional Competencies for Engineers	EEC	1	0	0	1	1
3.	24SH101105	Engineering Mathematics-I	BSC	3	1	0	4	4
4.	24EC101101	Embedded C Programming	ESC	3	0	0	3	3
5.	24ME105101	Engineering Graphics and Design	ESC	2	0	4	6	4
6.	24EC101103	Introduction to Electronics and Communication Engineering	PCC	3	0	0	3	3
LAB INTEGRATED COURSE								
7.	24SH102102	Physics for Electronics Engineering	BSC	2	0	2	4	3
PRACTICALS								
8.	24EC103102	Embedded C Programming Laboratory	ESC	0	0	4	4	2
9.	24SH103107	Communication Laboratory - I	HSMC	0	0	2	2	1
			TOTAL	**16**	**1**	**12**	**29**	**23**

SEMESTER - II

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24SH108205	Life Skills - II	EEC	1	0	0	1	1
2.	24SH101206	Tamils and Technology	HSMC	1	0	0	1	1
3.	24EE101202	Basic Electrical and Electronics Engineering	ESC	4	0	0	4	4
4.	24EC101201	Embedded Python Programming	ESC	3	0	0	3	3
LAB INTEGRATED COURSE								
5.	24SH102204	Engineering Chemistry	BSC	2	0	2	4	3
6.	24SH102202	Engineering Mathematics - II	BSC	3	0	2	5	4
PRACTICALS								
6.	24ME103203	IDEA Lab Workshop	ESC	0	0	4	4	2
	24EC102201	Embedded Python Programming	ESC	3	0	2	5	4
7.	24SH108207	Communication Laboratory - II	HSMC	0	0	2	2	1
MANDATORY COURSE								
8.	24SH112203	Environmental Science and Engineering	MC	2	0	0	2	0
			TOTAL	**16**	**0**	**12**	**28**	**21**

SEMESTER – III

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24SH101201	Random Process and Linear Algebra	BSC	3	1	0	4	4
2.	24EC101202	Circuit Analysis	PCC	3	0	0	3	3
3.	24EC101203	Electronic Devices and Circuits	PCC	3	0	0	3	3
4.	24EC1062XX	Open Elective-I	OEC	3	0	0	3	3
5.	24SH108205	Life Skill - III - Basic Conversation Skills	EEC	1	0	0	1	1
6.	24SH108206	Holistic Personality Development and Behavioral Skills	EEC	1	0	0	1	1
LAB INTEGRATED COURSE								
7.	24CS102207	Data Structure	ESC	3	0	2	5	4
PRACTICALS								
8.	24EC103208	Electrical Circuits and Electronic Devices Laboratory	PCC	0	0	3	3	1.5
TOTAL				**17**	**1**	**5**	**23**	**20.5**

SEMESTER – IV

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Analog and Digital Communication	PCC	3	0	0	3	3
2.		Linear Integrated Circuits and Its Application	PCC	3	0	0	3	3
3.		Signals and Systems	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.		Life Skill - IV - Public Speaking Practices	EEC	1	0	0	1	1
7.		Inventive Principles	EEC	1	0	0	1	1
LAB INTEGRATED COURSE								
8.		Digital Design and Verilog HDL	PCC	3	0	2	5	4
PRACTICALS								
9.		Analog and Digital Communication Laboratory	PCC	0	0	3	3	1.5
10.		Linear Integrated Circuits Laboratory	PCC	0	0	3	3	1.5
TOTAL				**20**	**0**	**6**	**26**	**24**

SEMESTER – V

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Digital Signal Processing	PCC	3	0	0	3	3
2.		Microcontroller and Embedded System	PCC	3	0	0	3	3
3.		Control Systems	PCC	3	0	0	3	3
4.		Electromagnetics and Transmission Lines	PCC	3	0	0	3	3
5.		Professional Elective -II	PEC	3	0	0	3	3
6.		Open Elective -III	OEC	3	0	0	3	3
7.		Life Skill - V	EEC	1	0	0	1	1
PRACTICALS								
8.		Digital Signal Processing Laboratory	PCC	0	0	2	2	1
9.		Microcontroller and Embedded System Laboratory	PCC	0	0	3	3	1.5
MANDATORY COURSE								
10.		Essence of Indian Traditional Knowledge and Science	MC	2	0	0	2	0
			TOTAL	**21**	**0**	**5**	**26**	**21.5**

SEMESTER – VI

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Antenna and Wave Propagation	PCC	3	0	0	3	3
2.		Computer Networks	PCC	3	0	0	3	3
3.		Professional Elective –III	PEC	3	0	0	3	3
4.		Open Elective –IV	OEC	3	0	0	3	3
5.		Life Skill - VI	EEC	1	0	0	1	1
LAB INTEGRATED COURSE								
6.		VLSI Design and MEMS Technology	PCC	3	0	2	5	4
7.		Advanced Embedded System and IOT	PCC	3	0	2	5	4
PRACTICALS								
8.		Mini Project	EEC	0	0	4	4	2
MANDATORY COURSE								
9.		Behavioural Science and Physcology	MC	2	0	0	2	0
			TOTAL	**21**	**0**	**8**	**29**	**23**

SEMESTER – VII

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Professional Elective -IV	PEC	3	0	0	3	3
2.		Optical Fiber and Communication Networks	PCC	3	0	0	3	3
3.		RF and Microwave Engineering	PCC	3	0	0	3	3
PRACTICALS								
4.		Internship	EEC	0	0	4	4	2
MANDATORY COURSE								
			TOTAL	**9**	**0**	**4**	**13**	**11**

SEMESTER - VIII

S. NO.	COURSE CODE	COURSETITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Management Course -I	HSMC	3	0	0	3	3
2.		Management Course -II	HSMC	3	0	0	3	3
LAB INTEGRATED COURSE								
PRACTICALS								
3.		Internship	EEC	0	0	6	6	3
4.		Project Work	EEC	0	0	14	14	7
MANDATORY COURSE								
			TOTAL	**6**	**0**	**20**	**26**	**16**

ANNEXURE - III

PROFESSIONAL ELECTIVE COURSES : VERTICAL X- Semester (4 to 8)

Vertical-I	Vertical - II	Vertical - III	Vertical-IV	Vertical - V	Vertical - VI	Vertical - VII
Semiconductor and VLSI Design	**Advanced Communication Technologies**	**Signal Processing**	**Computer Technology**	**Sensors& IOT**	**Space Technologies**	**Bio-Medical Technologies**
24EC105X01 Testing of VLSI	**24EC105X07** 5G Communication Networks	**24EC105X13** Advanced Digital Signal Processing	**24EC105X19** Artificial Intelligence & Machine Learning	**24EC105X25** Smart Sensors and IoT	**24EC105X31** Remote Sensing Control	**24EC105X37** Wearable Devices
24EC105X02 Low Power VLSI Design	**24EC105X08** Information Theory and Coding	**24EC105X14** Digital Image Processing	**24EC105X20** Cyber & Network Security	**24EC105X26** IOT System Design and Application	**24EC105X32** Radar and Navigation Engineering	**24EC105X38** Medical Imaging System
24EC105X03 FPGA and ASIC Design	**24EC105X09** Adhoc and Wireless Sensor Networks	**24EC105X15** Speech Processing	**24EC105X21** Cloud & Quantum Computing	**24EC105X27** Sensors and Actuators	**24EC105X33** Avionics Systems	**24EC105X39** Bio-Medical Instrumentation
24EC105X04 Semiconductor Device & Modelling	**24EC105X10** Software Defined Radio & Networks	**24EC105X16** Multimedia Signal Compression & Processing	**24EC105X22** Big Data Analytics & Data Science	**24EC105X28** Wireless Sensor Network Design	**24EC105X34** Satellite Communication	**24EC105X40** Therapeutic Equipment
24EC105X05 CMOS and VLSI Design Technology	**24EC105X11** Antenna Design	**24EC105X17** DSP IC	**24EC105X23** Robotics & Intelligent Automation	**24EC105X29** Industrial IoT & Automation	**24EC105X35** Rocket Propulsion	**24EC105X41** Brain Computer Interface and Applications
24EC105X06 System ON-CHIP Design	**24EC105X12** Advanced Wireless Communication Techniques	**24EC105X18** DSP Architecture and Programming	**24EC105X24** Deep Learning in Signal Processing & Computer Vision	**24EC105X30** Fundamentals of Nanoelectronics	**24EC105X36** Space Vehicles	**24EC105X42** Body Area Networks

OPEN ELECTIVE COURSES : VERTICAL

Vertical 1	Vertical II	Vertical III	Vertical IV	Vertical V
Computer Engineering	**Electronics and Communication Engineering**	**Civil Engineering**	**Mechanical Engineering**	**Electrical and Electronics Engineering**
Basic Python Programming	Digital Design and Verilog HDL (4) V1	Civil Engineering Drawing Laboratory	Autocad	Electrical CAD
Advanced Python Programming	Microcontroller and Embedded System (3) E1	Civil Engineering Modelling Laboratory I	Solid Works	Design Implementation and Commissioning of Solar and Wind Energy Systems
Core Java Programming	Advanced Embedded System and IoT (4) E2	Computational Structural Analysis Laboratory	ANSYS	PLC and SCADA Systems
Advanced Java Programming	VLSI Design and MEMS Technology (4) V2	Plan Analysis & Design of Structure		Electrical Vehicle Design
Database Management System				
Advanced Database Management System				
Fundamentals of Artificial Intelligence				
Artificial Intelligence and Machine Learning				
Machine Learning for Electronic Engineers				