ACADEMIC CURRICULA

UNDERGRADUATE/ INTEGRATED POST GRADUATE DEGREE PROGRAMMES

(With exit option of Diploma)

(Choice Based Flexible Credit System)

Regulations 2021

Volume – 1

(Revised on July 2024)

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

Kattankulathur, Chengalpattu District 603203,

Tamil Nadu, India

36. B.Tech. in Electrical and Electronics Engineering

36. (a) Mission of the Department

Mission Stmt – 1	*To educate the student to become better practicing engineers to meet global excellence.*
Mission Stmt – 2	*To provide better environment through latest developments in electrical engineering involving problem solving, design, practice and training.*
Mission Stmt – 3	*To motivate the graduates to become a good leader, designer and researcher through industry-oriented trainings with social and ethical responsibilities.*

36. (b) Program Educational Objectives (PEO)

PEO – 1	*Graduates are in a position to apply their knowledge acquired in Mathematics, Basic Sciences and Electrical and Electronics Engineering courses, to the solution of complex problems encountered in the modern Engineering practice.*
PEO – 2	*Graduates learn and adapt themselves to the constantly evolving technology by pursuing higher studies.*
PEO – 3	*Graduates are better employable and achieve success in their chosen areas of Electrical and Electronics Engineering and related fields.*
PEO – 4	*Graduates are good leaders and managers by effectively communicating at both technical and interpersonal levels.*

36. (c) Mission of the Department to Program Educational Objectives (PEO) Mapping

	Mission Stmt. - 1	Mission Stmt. - 2	Mission Stmt. - 3
PEO - 1	3	2	1
PEO - 2	2	3	1
PEO - 3	2	2	1
PEO - 4	1	1	3

3 – High Correlation, 2 – Medium Correlation, 1 – Low Correlation

36. (d) Mapping Program Educational Objectives (PEO) to Program Outcomes (PO)

	Program Outcomes (PO)												Program Specific Outcomes (PSO)		
	1	2	3	4	5	6	7	8	9	10	11	12			
	Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PSO-1	PSO-2	PSO-3
PEO - 1	3	3	3	1	-	-	1	-	-	-	-	-	3	-	-
PEO - 2	-	-	-	3	3	-	2	-	-	-	-	3	-	3	-
PEO - 3	-	3	3	-	2	3	-	3	2	-	2	-	2	2	-
PEO - 4	-	-	-	-	-	-	-	-	3	3	3	-	-	-	3

3 – High Correlation, 2 – Medium Correlation, 1 – Low Correlation

PSO – Program Specific Outcomes (PSO)

PSO - 1	*Apply principles of engineering and practical skills to design, develop and validate real time electrical systems.*
PSO - 2	*Ability to learn and adapt the evolving technological changes through multidisciplinary activities.*
PSO - 3	*Gain knowledge on professional values and ethics for sustainable development in the energy sector.*

36. (e) Program Structure: B.Tech. in Electrical and Electronics Engineering

Humanities & Social Sciences including Management Courses (H)

Course Code	Course Title	L	T	P	C
21LEH101T	Communicative English	2	1	0	3
21LEH102T	Chinese				
21LEH103T	French				
21LEH104T	German				
21LEH105T	Japanese	2	1	0	3
21LEH106T	Korean				
21LEH107T	Spanish				
21LEH108T	Russian				
21GNH101J	Philosophy of Engineering	1	0	2	2
21PDH209T [1]	Social Engineering	2	0	0	2
21GNH401T	Behavioral Psychology	2	1	0	3
				Total Credits	13

Basic Science Courses (B)

Course Code	Course Title	L	T	P	C
21PYB101J	Physics: Electromagnetic Theory, Quantum Mechanics, Waves and Optics	3	1	2	5
21CYB101J	Chemistry	3	1	2	5
21MAB101T	Calculus and Linear Algebra	3	1	0	4
21MAB102T	Advanced Calculus and Complex Analysis	3	1	0	4
21MAB209T	Transforms and Computational Techniques	3	1	0	4
21MAB301T	Probability and Statistics	3	1	0	4
21MAB302T	Discrete Mathematics	3	1	0	4
21BTB103T	Biology	2	0	0	2
				Total Credits	32

Engineering Science Courses (S)

Course Code	Course Title	L	T	P	C
21MES101L [1]	Basic Civil and Mechanical Workshop	0	0	4	2
21MES102L [1]	Engineering Graphics and Design	0	0	4	2
21EES101T	Electrical and Electronics Engineering	3	1	0	4
21CSS101J	Programming for Problem Solving	3	0	2	4
21ASS101T	Applied Engineering Mechanics	3	0	0	3
21DCS201P [1]	Design Thinking and Methodology	1	2	0	3
21CSS303T	Data Science	2	0	0	2
				Total Credits	20

Professional Core Courses (C)

Course Code	Course Title	L	T	P	C
21EEC101J	Electric Circuits	2	0	2	3
21EEC201J [2]	Analog Electronics	3	0	2	4
21EEC202T	Electromagnetic Theory	2	1	0	3
21EEC203J	Electrical Machines - I	2	0	2	3
21EEC204J	Digital System Design	3	0	2	4
21EEC205J	Electrical Machines - II	2	0	2	3
21CSC206T	Artificial Intelligence	2	1	0	3
21EEC206J [2]	Control Systems	2	0	2	3
21EEC207J	Sensors and Instruments	2	0	2	3
21EEC301J	Power Electronics	3	0	2	4
21EEC302T	Digital Signal Processing	2	1	0	3
21EEC303T [2]	Power System - I	2	1	0	3
21EEC304J	Power System - II	3	0	2	4
21EEC305P [1]	Microcontroller	1	0	4	3
				Total Credits	46

Non Credit Courses (M)

Course Code	Course Title	L	T	P	C
21PDM101L [1]	Professional Skills and Practices	0	0	2	
21PDM102L [1]	General Aptitude	0	0	2	
21PDM201L [1]	Verbal Reasoning	0	0	2	
21PDM202L [1]	Critical and Creative Thinking Skills	0	0	2	0
21PDM301L [1]	Analytical and Logical Thinking Skills	0	0	2	
21PDM302L [1]	Employability Skills and Practices	0	0	2	
21CYM101T [1]	Environmental Science	1	0	0	0
21LEM101T [1]	Constitution of India	1	0	0	0
21LEM102T [1]	Universal Human Values – Introduction	1	0	0	0
21LEM201T [1]	Professional Ethics	1	0	0	0
21LEM202T [1]	Universal Human Values-II: Understanding Harmony and Ethical Human Conduct	2	1	0	3
21LEM301T [1]	Indian Art Form	1	0	0	0
21LEM302T [1]	Indian Traditional Knowledge	1	0	0	0
21GNM101L [1]	Physical and Mental Health using Yoga				
21GNM102L [1]	National Service Scheme	0	0	2	0
21GNM103L [1]	National Cadet Corps				
21GNM104L [1]	National Sports Organization				
				Total Credits	03

Open Elective Courses (O)
(Any 3 courses)

Course Code	Course Title	L	T	P	C
21EEO301T	E-mobility	3	0	0	3
21EEO302T	Wearable Technology	3	0	0	3
21EEO303T	E-waste Management	3	0	0	3
21EEO304T	Energy Efficient Practices	3	0	0	3
21EEO305T	Surveillance Technology	3	0	0	3
21EEO306T	Sustainable Development Practices	3	0	0	3
21EEO307T	Clean and Green Energy	3	0	0	3
21EEO308T	Smart Cities and Communities	3	0	0	3
21EEO309T	Electrical Trading	3	0	0	3
21EEO310T	Unmanned Aerial Vehicle	3	0	0	3
				Total Credits	09

Project Work, Seminar, Internship in Industry / Higher Technical Institutions (P)

Course Code	Course Title	L	T	P	C
21GNP301L [1]	Community Connect	0	0	2	1
21EEP302L [1]	Project	0	0	6	3
21EEP303T [1]	MOOC	3	0	0	
21EEP401L	Major Project	0	0	30	15
21EEP402L	Major Project	0	0	20	10
21EEP403L	Internship#	0	0	10	5
				Total Credits	19

Professional Elective Courses (E)
(Any 7 courses)

Course Code	Course Title	L	T	P	C
Sub-stream: Intelligent Energy and Power Systems					
21EEE301T	Modelling and Control of Sustainable Energy Systems	3	0	0	3
21EEE302T	Power Quality	3	0	0	3
21EEE303J	Real Time Edge Computing in Energy Systems	2	0	2	3
21EEE401T	Smart Grid Operation and Planning	3	0	0	3

Course Code	Course Title	L	T	P	C
21EEE402T	AI in Smart Buildings and Electric Vehicles	3	0	0	3
21EEE403T	High Voltage Engineering	3	0	0	3
21EEE404T	Data Analytics and Cybersecurity for Energy Systems	3	0	0	3

Professional Elective Courses (E)
(Any 7 courses)

Course Code	Course Title	L	T	P	C
Sub-stream: Power Electronics and Drives					
21EEE304T	HVDC Systems	3	0	0	3
21EEE305T	Design of Electrical Apparatus	3	0	0	3
21EEE306T	Special Electrical Machines	3	0	0	3
21EEE405L [1]	Software tools for Power Electronics	1	0	4	3
21EEE406T	Power Electronics for Renewable Energy Systems	3	0	0	3
21EEE407T	Advanced Power Semiconductor Devices	3	0	0	3
21EEE408T	MEMS Technology	3	0	0	3
Sub-stream: Electric Mobility					
21EEE307T	Electric Vehicle Technology	3	0	0	3
21EEE308T	Automotive Electronics	3	0	0	3
21EEE309T	Energy Storage systems	3	0	0	3
21EEE409T	Automotive Systems Engineering	3	0	0	3
21EEE410T	Autonomous and Connected Vehicles	3	0	0	3
21EEE411T	Intelligent Transport Systems	3	0	0	3
21EEE412T	Techno-economic Analysis of Electric Vehicles	3	0	0	3
21EEE413J	Electric Vehicles Power Train Modelling and Simulation	2	0	2	3
Sub-stream: Electronic System Design					
21EEE310T	Advanced Digital System Design	3	0	0	3
21EEE311T	FPGA Architecture and Programming	3	0	0	3
21EEE312T	Advanced Electronic Devices	3	0	0	3
21EEE313T	Photonics	3	0	0	3
21EEE314T	Optics for Engineers	3	0	0	3
21EEE414J	Industrial Electronics	2	0	2	3
21EEE415T	VLSI Circuits and Design	3	0	0	3
21EEE416T	Medical Electronics	3	0	0	3
21EEE417T	Principles of Digital Communications	3	0	0	3
21EEE418T	Device Modelling	3	0	0	3
Sub-stream: Intelligent Learning and Computing Techniques					
21EEE315T	Programming for Engineers with C++	3	0	0	3
21EEE316T	Computer Organization and Architecture	3	0	0	3
21EEE317T	Computer Networks	3	0	0	3
21EEE318J	Introduction to Python Programming	2	0	2	3
21EEE319T	Fundamentals of Computational Intelligence	3	0	0	3
21EEE320T	Nature Inspired Computing Techniques	3	0	0	3
21EEE321T	Fundamentals of Internet of Things	3	0	0	3

Professional Elective Courses (E)

Course Code	Course Title	L	T	P	C
21EEE419P [1]	Fundamentals of Virtual Reality and Augmented Reality	1	0	4	3
21EEE420J	Big Data Tools for Visualization and Analytics	2	0	2	3
21EEE421J	Statistical Machine Learning Techniques	2	0	2	3
21EEE422T	Deep Learning Algorithms	3	0	0	3
21EEE423T	Edge Computing Technologies	3	0	0	3
21EEE424T	Fundamentals of Block Chain Technology	3	0	0	3
Sub-stream: Control and Automation					
21EEE322J	Programmable Logic Controllers	2	0	2	3
21EEE323T	Advanced Control System	3	0	0	3
21EEE324T	Smart Sensor Systems	3	0	0	3
21EEE325T	Fundamentals of Robotics	3	0	0	3
21EEE326T	Computer Vision System	3	0	0	3
21EEE425P [1]	Industrial IoT and Automation	1	0	4	3
21EEE426T	Nonlinear Control Systems	3	0	0	3
21EEE427T	Digital Control Systems	3	0	0	3
21EEE428T	Industrial Robotics	3	0	0	3
21EEE429T	Real Time Embedded System	3	0	0	3
Sub-stream: Sustainable Development					
21EEE327T	Sustainable Development Goals and Policies	3	0	0	3
21EEE328T	Electricity Policy and Safety Measures	3	0	0	3
21EEE329T	Work and Employability for a Sustainable Future	3	0	0	3
21EEE330T	Natural Resources for Sustainable Development	3	0	0	3
21EEE331T	Environmental Security and Sustaining Peace	3	0	0	3
21EEE332T	Sustainable Challenges in Cities	3	0	0	3
21EEE333T	Climate Change and Socio-Economic Systems	3	0	0	3
21EEE430T	Governance in Infrastructure	3	0	0	3
21EEE431T	Responsible Consumption and Production	3	0	0	3
21EEE432T	Sustainable Industrial Revolution	3	0	0	3
21EEE433T	Impact Measurement and Management for the Sustainable Development Goals	3	0	0	3
21EEE434T	Energy Conservation and Efficiency	3	0	0	3
21EEE435T	Energy Auditing	3	0	0	3
			Total Credits		21

36. (f)   Programme Articulation: B.Tech. in Electrical and Electronics Engineering

Course Code	Course Name	Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PSO-1	PSO-2	PSO-3
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
21EES101T	Electrical and Electronics Engineering	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-
21EEC101J	Electric Circuits	3	3	-	-	-	-	-	-	2	-	-	-	1.6	-	-
21EEC201J	Analog Electronics	3	-	3	-	2	-	-	-	2	2	-	-	3	2	-
21EEC202T	Electromagnetic Theory	3	3	-	-	-	-	-	-	-	2	-	-	1	-	-
21EEC203J	Electrical Machines - I	3	2	-	-	-	-	-	-	-	-	-	-	1.5	-	-
21EEC204J	Digital System Design	3	-	3	-	2	-	-	-	-	2	-	-	3	-	-
21EEC205J	Electrical Machines - II	3	2.75	-	-	-	-	-	-	-	-	-	-	1.5	-	-
21EEC206J	Control Systems	3	-	2.5	2.5	2.75	-	-	-	-	-	-	-	2	2	-
21EEC207J	Sensors and Instruments	2.8	-	-	-	-	-	-	-	-	-	-	-	1	1	-
21EEC301J	Power Electronics	3	2.67	2.33	-	2	-	-	-	2	-	-	-	2.33	-	-
21EEC302T	Digital Signal Processing	2.5	2.5	-	-	-	-	-	-	-	-	-	-	1	-	-
21EEC303T	Power System - I	2.6	3	-	-	-	-	-	-	-	-	-	-	2.5	-	-
21EEC304J	Power System - II	3	3	-	-	3	-	2	2	-	-	-	-	3	-	2
21EEC305P	Microcontroller	3	3	3	3	3	3	3	3	3	3	3	2	3	3	1
21EEE301T	Modelling and Control of Sustainable Energy Systems	3	-	-	-	-	-	2	-	-	-	-	-	-	-	3
21EEE302T	Power Quality	3	-	-	-	-	-	-	1	1	-	-	-	-	-	2
21EEE303J	Real Time Edge Computing in Energy Systems	2.8	-	-	-	2	-	-	-	-	-	-	2	-	2	-
21EEE304T	HVDC Systems	3	-	2	-	-	-	-	-	-	-	-	-	-	2	-
21EEE305T	Design of Electrical Apparatus	3	3	2	-	2	-	-	-	-	-	-	-	2	-	-
21EEE306T	Special Electrical Machines	3	2	-	-	-	-	-	-	-	-	-	-	2	-	-
21EEE307T	Electric Vehicle Technology	3	-	-	3	2.6	-	-	-	-	-	-	-	1.67	2	2
21EEE308T	Automotive Electronics	2.8	3	-	-	-	-	-	-	-	-	-	-	1	-	1
21EEE309T	Energy Storage systems	3	2	-	-	-	-	2	-	-	-	-	-	-	-	2.2
21EEE310T	Advanced Digital System Design	3	-	2	-	-	-	-	-	-	-	-	-	2	-	-
21EEE311T	FPGA Architecture and Programming	3	-	2	-	-	-	-	-	-	-	-	-	2	-	-
21EEE312T	Advanced Electronic Devices	3	1	-	-	-	-	-	-	-	-	-	-	2	-	-
21EEE313T	Photonics	3	-	-	-	-	-	-	-	-	-	-	-	2	-	-
21EEE314T	Optics for Engineers	3	-	2	-	-	-	-	-	-	-	-	-	-	2	-
21EEE315T	Programming for Engineers with C++	3	1.8	-	-	-	-	-	-	-	-	-	-	-	1	-
21EEE316T	Computer Organization and Architecture	3	1.6	-	-	-	-	-	-	-	-	-	-	-	1	-
21EEE317T	Computer Networks	3	-	-	-	-	-	-	-	-	-	-	-	1	-	-
21EEE318J	Introduction to Python Programming	2	2	-	-	-	-	-	-	-	-	-	-	-	2	-
21EEE319T	Fundamentals of Computational Intelligence	3	2	-	-	1	-	-	-	-	-	-	-	-	2	-
21EEE320T	Nature Inspired Computing Techniques	3	1	-	-	-	-	-	-	-	-	-	-	1	-	-
21EEE321T	Fundamentals of Internet of Things	2.6	-	1.67	-	-	-	-	-	3	-	-	-	3	-	-
21EEE322J	Programmable Logic Controllers	3	2	-	-	-	-	-	-	-	-	-	-	3	-	-
21EEE323T	Advanced Control System	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
21EEE324T	Smart Sensor Systems	3	2	-	-	-	-	-	-	-	-	-	-	1	-	-
21EEE325T	Fundamentals of Robotics	2.8	-	-	-	-	-	-	-	-	-	-	-	2.4	-	-
21EEE326T	Computer Vision System	3	1.75	-	-	2	-	-	-	-	-	-	-	1	-	-
21EEE327T	Sustainable Development Goals and Policies	2	-	-	-	-	3	3	2	-	-	-	-	-	-	2
21EEE328T	Electricity Policy and Safety Measures	2.33	-	-	-	-	2	2	3	2	-	-	2.33	-	-	3
21EEE329T	Work and Employability for a Sustainable future	2	-	-	-	-	-	3	-	-	-	-	2	-	-	2
21EEE330T	Natural Resources for Sustainable Development	3	-	-	-	-	-	3	-	-	-	-	2	-	-	2
21EEE331T	Environmental Security and Sustaining Peace	2	-	-	-	-	1	3	2	3	3	-	3	-	-	2
21EEE332T	Sustainable Challenges in Cities	2.8	-	-	-	-	2	2	-	-	-	-	-	-	-	2
21EEE333T	Climate Change and Socio-Economic Systems	2.6	-	-	-	-	2.8	2.6	2.5	-	-	-	1.5	-	-	1.6
21EEE401T	Smart Grid Operation and Planning	3	-	-	-	-	-	1.5	2	-	-	-	1.5	-	-	2.4
21EEE402T	AI in Smart Buildings and Electric Vehicles	3	2	-	-	2	-	-	-	-	-	-	-	3	-	-

Course Code	Course Name	Engineering Knowledge (1)	Problem Analysis (2)	Design/development of solutions (3)	Conduct investigations of complex problems (4)	Modern Tool Usage (5)	The engineer and society (6)	Environment & Sustainability (7)	Ethics (8)	Individual & Team Work (9)	Communication (10)	Project Mgt. & Finance (11)	Life Long Learning (12)	PSO-1	PSO-2	PSO-3
21EEE403T	High Voltage Engineering	3	3	-	-		-	-	-	-	-	-	-	-	-	2
21EEE404T	Data Analytics and Cybersecurity for Energy Systems	2.8	-	-	-	2	-	-	2	-	-	-	2	-	2	-
21EEE405L	Software tools for Power Electronics	3	-	3	-	3	-	-	-	-	-	-	-	2	-	-
21EEE406T	Power Electronics for Renewable Energy Systems	2	2	2	-	2	-	-	-	-	-	-	-	2	-	-
21EEE407T	Advanced Power Semiconductor Devices	3	-	-	-	-	-	-	-	-	-	-	-	2	-	-
21EEE408T	MEMS Technology	3	-	-	-	2.25	-	-	-	2	2	-	-	-	1	-
21EEE409T	Automotive Systems Engineering	3	2	-	-	1	-	-	-	-	-	-	-	1	-	-
21EEE410T	Autonomous and Connected Vehicles	2.8	-	-	3	-	-	-	-	-	-	-	-	-	2	-
21EEE411T	Intelligent Transport Systems	3	-	2	2	2	1	1	-	-	-	-	-	2	2	1
21EEE412T	Techno-economic Analysis of Electric Vehicles	3	-	-	-	-	-	2	-	-	-	-	-	-	2	-
21EEE413J	Electric Vehicles Power Train Modelling and Simulation	3	-	-	3	2.6	-	-	-	-	-	-	-	-	2	
21EEE414J	Industrial Electronics	2.8	-	-	-	3	-	-	-	-	-	-	-	3	-	-
21EEE415T	VLSI Circuits and Design	3	1	-	-	-	-	-	-	-	-	-	-	2	-	-
21EEE416T	Medical Electronics	3	-	-	-	-	-	-	-	-	-	-	-	-	2	-
21EEE417T	Principles of Digital Communications	3	-	-	-	-	-	-	-	-	-	-	-	1	-	-
21EEE418T	Device Modelling	3	1	-	-	1	-	-	-	-	-	-	-	1	-	-
21EEE419P	Fundamentals of Virtual Reality and Augmented Reality	3	2.67	3	3	2.67	3	3	3	3	3	3	2	3	3	1
21EEE420J	Big Data Tools for Visualization and Analytics	3	2	-	-	2	-	-	-	-	-	-	-	-	1.5	-
21EEE421J	Statistical Machine Learning Techniques	3	-	-	1.67	2.67	-	-	-	-	-	-	-	-	2	-
21EEE422T	Deep Learning Algorithms	3	1.33	-	-	-	-	-	-	-	-	-	-	-	2	-
21EEE423T	Edge Computing Technologies	3	-	-	-	-	-	-	-	-	-	-	-	-	2	-
21EEE424T	Fundamentals of Block Chain Technology	2	-	2	-	1	-	-	2	-	-	-	-	-	2	-
21EEE425P	Industrial IoT and Automation	3	3	3	3	3	3	3	3	3	3	3	2	3	3	1
21EEE426T	Nonlinear Control Systems	2.8	2.8	2	-	1	-	-	-	-	-	-	-	3	2	-
21EEE427T	Digital Control Systems	3	3	-	-	-	-	-	-	-	-	-	-	2	-	-
21EEE428T	Industrial Robotics	2.8	2	-	-	-	-	-	-	-	-	-	-	2	-	-
21EEE429T	Real Time Embedded System	3	-	-	-	2	-	-	-	-	-	-	-	1	-	-
21EEE430T	Governance in Infrastructure	2	-	-	-	-	-	3	-	-	-	-	2	-	-	2
21EEE431T	Responsible Consumption and Production	2	-	-	-	-	-	3	-	1	-	-	3	-	-	1
21EEE432T	Sustainable Industrial Revolution	3	-	-	-	-	-	3	-	2	-	-	2	-	-	2
21EEE433T	Impact Measurement and Management for the Sustainable Development Goals	1.8	-	-	-	-	-	3	-	2	-	-	2.4	-	-	2
21EEE434T	Energy Conservation and Efficiency	3	3	-	-	-	-	3	-	-	-	3	-	-	2	2
21EEE435T	Energy Auditing	2.67	-	-	-	-	2	-	2	-	2	-	-	-	-	2
21GNP301L	Community Connect						3		3	3	2					
21EEP302L	Project	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
21EEP303T	MOOC	3	2											3		
21EEP401L	Major Project	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
21EEP402L	Major Project	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
21EEP403L	Internship	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Program Average															

36. (g) Implementation Plan: B.Tech. in Electrical and Electronics Engineering

Semester – I

Course Code	Course Title	L	T	P	C
21LEH101T	Communicative English	2	1	0	3
21MAB101T	Calculus and Linear Algebra	3	1	0	4
21PYB101J	Physics: Electromagnetic Theory, Quantum Mechanics, Waves and Optics	3	1	2	5
21MES102L [1]	Engineering Graphics and Design	0	0	4	2
21EES101T	Electrical and Electronics Engineering	3	1	0	4
21CYM101T [1]	Environmental Science	1	0	0	0
21PDM101L [1]	Professional Skills and Practices	0	0	2	0
21LEM101T [1]	Constitution of India	1	0	0	0
	Total Credits				**18**

Semester – II

Course Code	Course Title	L	T	P	C
21LEH102T	Chinese				
21LEH103T	French				
21LEH104T	German				
21LEH105T	Japanese	2	1	0	3
21LEH106T	Korean				
21LEH107T	Spanish				
21LEH108T	Russian				
21GNH101J	Philosophy of Engineering	1	0	2	2
21MAB102T	Advanced Calculus and Complex Analysis	3	1	0	4
21CYB101J	Chemistry	3	1	2	5
21EEC101J	Electric Circuits	2	0	2	3
21CSS101J	Programming for Problem Solving	3	0	2	4
21BTB103T	Biology	2	0	0	2
21MES101L [1]	Basic Civil and Mechanical Workshop	0	0	4	2
21PDM102L [1]	General Aptitude	0	0	2	0
21GNM101L [1]	Physical and Mental Health using Yoga				
21GNM102L [1]	National Service Scheme	0	0	2	0
21GNM103L [1]	National Cadet Corps				
21GNM104L [1]	National Sports Organization				
	Total Credits				**25**

Semester – III

Course Code	Course Title	L	T	P	C
21MAB209T	Transforms and Computational Techniques	3	1	0	4
21PDH209T [1]	Social Engineering	2	0	0	2
21ASS101T	Applied Engineering Mechanics	3	0	0	3
21EEC201J [2]	Analog Electronics	3	0	2	4
21EEC202T	Electromagnetic Theory	2	1	0	3
21EEC203J	Electrical Machines - I	2	0	2	3
21LEM201T [1]	Professional Ethics	1	0	0	0
21PDM201L [1]	Verbal Reasoning	0	0	2	0
21LEM202T [1]	Universal Human Values-II: Understanding Harmony and Ethical Human Conduct	2	1	0	3
	Total Credits				**22**

Semester – IV

Course Code	Course Title	L	T	P	C
21MAB301T	Probability and Statistics	3	1	0	4
21EEC204J	Digital System Design	3	0	2	4
21EEC205J	Electrical Machines - II	2	0	2	3
21CSC206T	Artificial Intelligence	2	1	0	3
21EEC206J [2]	Control Systems	2	0	2	3
21EEC207J	Sensors and Instruments	2	0	2	3
21DCS201P [1]	Design Thinking and Methodology	1	2	0	3
21PDM202L [1]	Critical and Creative Thinking Skills	0	0	2	0
	Total Credits				**23**

Semester – V

Course Code	Course Title	L	T	P	C
21MAB302T	Discrete Mathematics	3	1	0	4
21EEC301J	Power Electronics	3	0	2	4
21EEC302T	Digital Signal Processing	2	1	0	3
21EEC303T [2]	Power System - I	2	1	0	3
E	Professional Elective – I				3
O	Open Elective – I				3
21GNP301L [1]	Community Connect	0	0	2	1
21PDM301L [1]	Analytical and Logical Thinking Skills	0	0	2	0
21LEM301T [1]	Indian Art Form	1	0	0	0
	Total Credits				**21**

Semester – VI

Course Code	Course Title	L	T	P	C
21CSS303T	Data Science	2	0	0	2
21EEC304J	Power System - II	3	0	2	4
21EEC305P [1]	Microcontroller	1	0	4	3
E	Professional Elective – II				3
E	Professional Elective – III				3
O	Open Elective – II				3
21EEP302L [1]	Project	0	0	6	3
21EEP303T [1]	MOOC	3	0	0	
21PDM302L [1]	Employability Skills and Practices	0	0	2	0
21LEM302T [1]	Indian Traditional Knowledge	1	0	0	0
	Total Credits				**21**

Semester – VII

Course Code	Course Title	L	T	P	C
21GNH401T	Behavioral Psychology	2	1	0	3
E	Professional Elective – IV				3
E	Professional Elective – V				3
E	Professional Elective – VI				3
E	Professional Elective – VII				3
O	Open Elective – III	3	0	0	3
	Total Credits				**18**

Semester - VIII

Course Code	Course Title	L	T	P	C
21EEP401L	Major Project	0	0	30	15
21EEP402L	Major Project	0	0	20	10
21EEP403L	Internship#	0	0	10	5
	Total Credits				**15**

#Students have to register either 21EEP401L or 21EEP402L and 21EEP403L both in eighth semester

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

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