



PRAGATI ENGINEERING COLLEGE

(AUTONOMOUS)

ADB Road, Surampalem, Kakinada District, A.P. - 533 437
 (Approved by AICTE, Permanently Affiliated to JNTUK, Kakinada.)
 (Recognized by UGC Under Section 2(f) and 12 (B) of UGC act, 1956)
 Ph : 08852 - 252233, 34. Website : www.pragati.ac.in
 (Sponsored by M/s. Gayatri Educational Society)

D.No. 2-46-21, Near D-Mart, Kakatiya Nagar, Kakinada. Ph : 7330826667, 7337458886

1.1: Curricular Aspects

Metric	Description
1.1.2	The programmes offered by the institution focus on employability/ entrepreneurship/ skill development and their course syllabi are adequately revised to incorporate contemporary requirements

Pragati Engineering College (PEC) places a strong emphasis on employability, entrepreneurship, and skill development to prepare students for the rapidly evolving professional landscape. The college recognizes the importance of equipping students with the necessary knowledge, competencies, and entrepreneurial mindset to succeed in their careers or pursue entrepreneurial ventures. To achieve this, PEC consistently revises its course syllabi to incorporate contemporary requirements and industry demands.

The college regularly reviews and updates the syllabi of its courses to align with emerging trends, technological advancements, and changing industry requirements. PEC understands that employability goes beyond technical proficiency. Therefore, the college focuses on developing a comprehensive skill set among its students. The curriculum is designed with courses to foster critical thinking, problem-solving abilities, communication skills, teamwork, and leadership qualities. By emphasizing these skills, PEC prepares students to excel not only in technical roles but also in managerial and leadership positions.

Entrepreneurship is another key aspect of PEC's educational approach. The college recognizes the importance of fostering an entrepreneurial mindset and providing students with the necessary tools and resources to explore their entrepreneurial aspirations. The Institution Innovation Council of the college provides ample resources such as awareness programmes on Entrepreneurship, IPR and startups etc. to guide and support aspiring students

To further enhance the employability and entrepreneurial capabilities of its students, PEC incorporates practical learning experiences into the curriculum.

Regulations	Branch	Employability Courses	skill development course	entrepreneurship	Total Courses
R20	B.Tech CE	50	12	5	67
	B.Tech EEE	67	23	5	95
	B.Tech ME	48	23	4	75
	B.Tech ECE	60	30	2	92
	B.Tech CSE	67	19	6	92
	B.Tech IT	40	56	3	99

1.1.2 courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Programme Name	Year & Semester	Name of the Course	Course Code	Employability/ Entrepreneurship/ Skill development	Regulation
	I Year I Semester	Engineering Mechanics	20ME1T01	Employability	R20
	I Year I Semester	Basic Electrical and Electronics Engineering	20EE1T01	Employability	R20
	I Year I Semester	Basic Electrical and Electronics Engineering laboratory	20EE1L01	Employability	R20
	I Year II Semester	Programming for Problem Solving using C	20CS2T01	Employability	R20
	I Year II Semester	Strength of Materials	20CE2T01	Employability	R20
	I Year II Semester	Programming for Problem Solving using C Laboratory	20CS2L01	Employability	R20
	I Year II Semester	Engineering Chemistry Laboratory	20BC2L01	Employability	R20
	II Year I Semester	Solid Mechanics	20CE3T02	Employability	R20
	II Year I Semester	Fluid Mechanics	20CE3T03	Employability	R20
	II Year I Semester	Building Materials and Concrete Technology	20CE3T04	Employability	R20
	II Year I Semester	Surveying	20CE3T05	Employability	R20
	II Year I Semester	Strength of Materials Laboratory	20CE3L01	Skill development	R20
	II Year I Semester	Surveying Field-work Laboratory	20CE3L02	Skill development	R20
	II Year I Semester	Building Planning & Drawing Laboratory	20CE3L03	Skill development	R20
	II Year I Semester	Total station lab	20CE3S01	Skill development	R20
	II Year II Semester	Engineering Geology	20CE4T06	Skill development	R20
	II Year II Semester	Hydraulics & Hydraulic Machinery	20CE4T07	Employability	R20
	II Year II Semester	Structural Analysis	20CE4T08	Employability	R20
	II Year II Semester	Managerial Economics and Financial Analysis	20HM4T01	Entrepreneurship	R20
	II Year II Semester	Engineering Geology Laboratory	20CE4L04	Skill development	R20

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II Year II Semester	Fluid Mechanics & Hydraulic machinery Laboratory	20CE4L05	Employability	R20
II Year II Semester	Concrete Technology Laboratory	20CE4L06	Employability	R20
II Year II Semester	Road Safety Audit	20CE4S02	Employability	R20
III Year I Semester	Design and Drawing of Reinforced Concrete Structures	20CE5T09	Employability	R20
III Year I Semester	Geotechnical Engineering	20CE5T10	Employability	R20
III Year I Semester	Highway Engineering	20CE5T11	Employability	R20
III Year I Semester	Renewable Energy Engineering (Open Elective Course-I)	20EE5T13	Employability	R20
III Year I Semester	Deep Learning (Open Elective Course-I)	20AM5T04	Employability	R20
III Year I Semester	Entrepreneurship (Open Elective Course-I)	20HM5T03	Employability	R20
III Year I Semester	Repair & Maintenance of Structures (Professional Elective Course-I)	20CE5T12	Employability	R20
III Year I Semester	Rock Mechanics (Professional Elective Course-I)	20CE5T13	Employability	R20
III Year I Semester	Remote Sensing & GIS Applications (Professional Elective Course-I)	20CE5T14	Employability	R20
III Year I Semester	Solid Hazardous and Waste Management (Professional Elective Course-I)	20CE5T15	Employability	R20
III Year I Semester	Construction Technology and Management (Professional Elective Course-I)	20CE5T16	Entrepreneurship	R20
III Year I Semester	Geotechnical Engineering Laboratory	20CE5L07	Skill development	R20
III Year I Semester	Transportation Engineering Laboratory	20CE6L08	Employability	R20
III Year I Semester	Analysis of Structure by Computer Aided Design (ETABS)	20CE5S03	Skill development	R20
III Year II Semester	Design & Drawing of Steel Structures	20CE6T17	Employability	R20
III Year II Semester	Water Resource Engineering	20CE6T18	Employability	R20

III Year II Semester	Environmental Engineering	20CE6T19	Employability	R20
III Year II Semester	Industrial Structures (Professional Elective Course-II)	20CE6T20	Employability	R20
III Year II Semester	Foundation Engineering (Professional Elective Course-II)	20CE6T21	Entrepreneurship	R20
III Year II Semester	Urban Hydrology Storm Drainage and Management (Professional Elective Course-II)	20CE6T22	Employability	R20
III Year II Semester	Industrial Waste Management (Professional Elective Course-II)	20CE6T23	Employability	R20
III Year II Semester	Railways, Airports & Seaports (Professional Elective Course-II)	20CE6T24	Employability	R20
III Year II Semester	Environmental Engineering Laboratory	20CE6L09	Skill development	R20
III Year II Semester	Estimation, Specification & Contracts lab	20CE6L10	Skill development	R20
III Year II Semester	STAAD & CAD Laboratory	20CE5L11	Skill development	R20
III Year II Semester	Soft Skills and Inter Personal Communication	20HE6S01	Skill development	R20
III Year II Semester	IPR and PATENTS	20HM6T08	Entrepreneurship	R20
IV Year I Semester	Earthquake Resistance Design (Professional Elective Course-III)	20CE7T25	Employability	R20
IV Year I Semester	Ground Improvement Techniques (Professional Elective Course-III)	20CE7T26	Employability	R20
IV Year I Semester	River Management (Professional Elective Course-III)	20CE7T27	Employability	R20
IV Year I Semester	Bioremediation (Professional Elective Course-III)	20CE7T28	Employability	R20
IV Year I Semester	Traffic Engineering (Professional Elective Course-III)	20CE7T29	Employability	R20
IV Year I Semester	Bridge Engineering (Professional Elective Course-IV)	20CE7T30	Employability	R20
IV Year I Semester	Soil Dynamics and Machine Foundations (Professional Elective Course-IV)	20CE7T31	Employability	R20

IV Year I Semester	Irrigation Engineering (Professional Elective Course-IV)	20CE7T32	Employability	R20
IV Year I Semester	Air Pollution & Control (Professional Elective Course-IV)	20CE7T33	Employability	R20
IV Year I Semester	Pavement Analysis and Design (Professional Elective Course-IV)	20CE7T34	Employability	R20
IV Year I Semester	Pre-Stressed Concrete (Professional Elective Course-V)	20CE7T35	Employability	R20
IV Year I Semester	Earth & Rock fill Dams (Professional Elective Course-V)	20CE7T36	Employability	R20
IV Year I Semester	Water Resources System Planning (Professional Elective Course-V)	20CE7T37	Employability	R20
IV Year I Semester	Environmental Impact Assessment & Management (Professional Elective Course-V)	20CE7T38	Employability	R20
IV Year I Semester	Big Data Analytics (Open Elective Course-III)	20DS6T02	Employability	R20
IV Year I Semester	Sustainable Energy Technologies (Open Elective Course-IV)	20ME7T38	Employability	R20
IV Year I Semester	Marketing Management (Open Elective Course-IV)	20HM7T04	Entrepreneurship	R20
I Year – I SEMESTER	Professional communicative English	20HE1T01	Employability	R20
	Differential Equations and Numerical methods	20BM1T01	Employability	R20
	Linear Algebra and Partial Differential Equations	20BM1T02	Employability	R20
	Engineering Drawing	20ME1T02	Employability	R20
	Programming for Problem Solving using C	20CS1T01	Employability	R20
	Professional communicative English Laboratory	20HE1L01	Skill development	R20
	Electrical engineering work shop	20EE1L02	Skill development	R20
	Programming for Problem Solving using C Laboratory	20CS1L01	Skill development	R20
	Transforms and Vector calculus	20BM2T03	Employability	R20
	Applied Physics	20BP2T02	Employability	R20
	Data structures Through C	20CS2T02	Employability	R20
	Electrical circuit Analysis-I	20EE2T02	Employability	R20

I Year – II SEMESTER	Basic Civil and Mechanical Engineering	20ME2T03	Employability	R20
	Basic Civil and Mechanical Engineering Laboratory	20ME2L02	Skill development	R20
	Applied Physics Laboratory	20BP2L02	Skill development	R20
	Data structures Through C Laboratory	20CS2L02	Skill development	R20
	Constitution of India	20HM2T05	Entrepreneurship	R20
II Year – I SEMESTER	Complex Variables and Statistical Methods	20BM3T04	Employability	R20
	Electronic Devices and Circuits	20EC3T05	Employability	R20
	Electrical Circuit Analysis -II	20EE3T04	Employability	R20
	Transformers And DC Machines	20EE3T05	Employability	R20
	Electro Magnetic Fields	20EE3T06	Employability	R20
	Electrical Circuits Laboratory	20EE3L04	Employability	R20
	Transformers And DC Machines Laboratory	20EE3L05	Skill development	R20
	Electronic Devices and Circuits Laboratory	20EC3L02	Skill development	R20
	Design of Electrical Circuits using Engineering Software Tools	20EE3S01	Skill development	R20
	Professional Ethics & Human Values	20HM3T07	Entrepreneurship	R20
II Year – II SEMESTER	Python Programming	20CS4T03	Employability	R20
	Digital Electronics	20EC4T11	Employability	R20
	Power System-I	20EE4T07	Employability	R20
	Induction and Synchronous Machines	20EE4T08	Employability	R20
	Managerial Economics & Financial Analysis	20HM4T01	Entrepreneurship	R20
	Python Programming Laboratory	20CS4L03	Skill development	R20
	Induction and Synchronous Machines Laboratory	20EE4L07	Skill development	R20
	Digital Electronics Laboratory	20EC4L06	Skill development	R20
	IoT Applications of Electrical Engineering	20EC4S03	Skill development	R20
	Environmental Science	20BE4T01	Entrepreneurship	R20
	Power Systems-II	20EE5T09	Employability	R20
	Power Electronics	20EE5T10	Employability	R20
	Control Systems	20EE5T11	Employability	R20

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III Year – I SEMESTER	Open Elective- I/ Job Oriented Elective-I			R20
	Surveying	20CE5T0	Employability	R20
	Operations Research	20ME5T2	Employability	R20
	Principles of Communication Engineering	20EC5T1 5	Employability	R20
	Deep Learning	20AM5T0	Employability	R20
	Entrepreneurship	20HM5T0	Employability	R20
	Professional Elective- I			R20
	Linear IC Applications	20EC5T1	Employability	R20
	Utilization of Electrical Energy	20EE5T12	Employability	R20
	Computer Architecture and Organization	20EC5T1 8	Employability	R20
	Optimization Techniques	20ME5T2	Employability	R20
	Control Systems Laboratory	20EE5L08	Skill development	R20
	Power Electronics Laboratory	20EE5L09	Skill development	R20
	Soft skills and inter personal communication	20HE5S0 1	Skill development	R20
	Summer Internship 2 Months (Mandatory) after second year (to be evaluated during V semester)	20EE5I01	Skill development	R20
	III Year – II SEMESTER	Microprocessors and Microcontrollers	20EC6T2 4	Employability
Electrical Measurements and Instrumentation		20EE6T14	Employability	R20
Power System Analysis		20EE6T15	Employability	R20
Professional Elective- II			R20	
Signal and Systems		20EC6T2	Employability	R20
Electric Drives		20EE6T16	Employability	R20
Advanced Control Systems		20EE6T17	Employability	R20
Power System Operation and Control		20EE6T18	Employability	R20
Open Elective- II/ Job Oriented Elective-II			R20	
Disaster Management		20CE6T3	Employability	R20
Introduction to Automobile Engineering		20ME6T2 5	Employability	R20
Sensors and Transducers		20EC6T2	Employability	R20
Computer Forensics		20CS6T15	Employability	R20
Electrical Measurements and Instrumentation Laboratory	20EE6L10	Skill development	R20	

	Microprocessors and Microcontrollers Laboratory	20EC6L08	Skill development	R20
	Power Systems and Simulation Laboratory	20EE6L11	Skill development	R20
	Skill Advanced Course: Machine Learning with Python-I	20AM6S03	Skill development	R20
	Research Methodology	20HM6T1	Entrepreneurship	R20
IV Year – I SEMESTER	Professional Elective- III			R20
	Digital Signal Processing	20EC7T3	Employability	R20
	Renewable and Distributed Energy Technologies	20EE7T20	Employability	R20
	Flexible AC Transmission Systems	20EE7T21	Employability	R20
	Power Systems Deregulation	20EE7T22	Employability	R20
	Professional Elective- IV			R20
	Hybrid Electric Vehicles	20EE7T23	Employability	R20
	High Voltage Engineering	20EE7T24	Employability	R20
	Programmable Logic Controllers and Applications	20EE7T25	Employability	R20
	Cloud Computing	20CS7T12	Employability	R20
	Professional Elective- V			R20
	Switchgear and Protection	20EE7T26	Employability	R20
	Switched Mode Power Conversion	20EE7T27	Employability	R20
	AI Applications to Electrical Engineering	20EE7T28	Employability	R20
	Data Science	20DS7T1	Employability	R20
	Open Elective- III/ Job Oriented Elective-			R20
	Highway Engineering	20CE7T1	Employability	R20
	Additive Manufacturing	20ME7T2	Employability	R20
	Industrial Electronics	20EC7T4	Employability	R20
	Big Data Analytics	20DS7T0	Employability	R20
	Organizational behavior	20HM7T0	Employability	R20
	Open Elective- IV/ Job Oriented Elective-			R20
	Water resource engineering	20CE7T18	Employability	R20
	Sustainable Energy Technologies	20ME7T38	Employability	R20
	Biomedical Instrumentation	20EC7T4	Employability	R20
	Cryptography and network security	20IT7T10	Employability	R20
	Marketing Management	20HM7T0	Employability	R20
	Universal Human Values-2: Understanding Harmony	20HM7T11	Employability	R20

		Skill Advanced Course Machine Learning with Python-II	20AM7S0 4	Skill development	R20
		Industrial / Research Internship 2 Months (Mandatory) after third year (to be evaluated during VII Semester)	20EE7I02	Skill development	R20
IV Year – II SEMESTER		Project work, seminar and internship in industry (6 Months)	20EE8P 01	Employability	R20
I Year I Sem		Environmental Science	20BE1T01	Employability	R20
I Year I Sem		Engineering Physics Laboratory	20BP1L01	Employability	R20
I Year I Sem		Engineering Drawing	20ME1T02	Employability	R20
I Year I Sem		Differential Equations and Numerical Methods	20BM1T01	Employability	R20
I Year I Sem		Engineering Physics	20BP1T01	Employability	R20
I Year I Sem		Professional Communicative English	20HE1T01	Employability	R20
I Year I Sem		Programming for Problem Solving using C	20CS1T01	Employability	R20
I Year I Sem		Programming for Problem Solving using C	20CS1L01	Employability	R20
I Year I Sem		Professional Communicative English Lab	20HE1L01	Skill development	R20
I Year II Sem		Engineering Mechanics	20ME2T01	Employability	R20
I Year II Sem		Computer Aided Engineering Drawing	20ME2L03	Skill development	R20
I Year II Sem		Engineering Chemistry Laboratory	20BC2L01	Employability	R20
I Year II Sem		Engineering Workshop Laboratory	20ME2L01	Employability	R20
I Year II Sem		Basic Electrical and Electronics Engineering lab	20EE2L01	Employability	R20
I Year II Sem		Linear Algebra and Partial Differential Equations	20BM2T02	Employability	R20
I Year II Sem		Constitution of India	20HE2T05	Skill development	R20
I Year II Sem		Engineering Chemistry	20BC2T01	Employability	R20
I Year II Sem		Basic Electrical and Electronics Engineering	20EE2T01	Skill development	R20
II Year I Sem		Thermodynamics	20ME3T04	Employability	R20
II Year I Sem		Transforms and Vector Calculus	20BM3T03	Employability	R20
II Year I Sem		Mechanics of Solids	20ME3T06	Employability	R20
II Year I Sem		Metallurgy and Material Science Laboratory	20ME3L04	Employability	R20

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II Year I Sem	Mechanics of Solids Laboratory	20ME3L05	Employability	R20
II Year I Sem	Metallurgy and Material Science	20ME3T05	Employability	R20
II Year I Sem	Fluid Mechanics & Hydraulic Machines	20ME3T07	Employability	R20
II Year I Sem	Essence of Indian Traditional Knowledge	20HM3T06	Skill development	R20
II Year I Sem	Fluid Mechanics and Hydraulic Machinery Laboratory	20ME3L06	Skill development	R20
II Year I Sem	Basics of Applied Robot Control	20ME3S01	Skill development	R20
II Year II Sem	Complex Variables and Statistical Methods	20BM4T04	Employability	R20
II Year II Sem	Applied Thermodynamics	20ME4T08	Employability	R20
II Year II Sem	Production Technology Laboratory	20ME4L09	Employability	R20
II Year II Sem	Drafting and Modelling Laboratory	20ME4L07	Employability	R20
II Year II Sem	Kinematics of Machinery	20ME4T09	Employability	R20
II Year II Sem	Production Technology	20ME4T10	Employability	R20
II Year II Sem	Machine Drawing	20ME4T11	Skill development	R20
II Year II Sem	Numerical Methods through Python	20CS4S08	Skill development	R20
II Year II Sem	Thermal Engineering Laboratory	20ME4L08	Skill development	R20
III Year I Sem	Design of Machine Members-I	20ME5T13	Employability	R20
III Year I Sem	Dynamics of Machinery	20ME5T12	Employability	R20
III Year I Sem	Entrepreneurship	20HM5T03	Entrepreneurship	R20
III Year I Sem	Industrial Engineering and Management	20ME5T15	Entrepreneurship	R20
III Year I Sem	Professional Ethics and Human Values	20HM5T07	Entrepreneurship	R20
III Year I Sem	Soft skills and inter personal communication	20HE5S01	Skill development	R20
III Year I Sem	Machine Tools Laboratory	20ME5L10	Skill development	R20
III Year I Sem	Machining, Machine Tools and Metrology	20ME5T14	Skill development	R20
III Year I Sem	Theory of Machines Laboratory	20ME5L11	Skill development	R20
III Year II Sem	Heat Transfer	20ME6T20	Employability	R20
III Year II Sem	Heat Transfer Laboratory	20ME6L12	Skill development	R20
III Year II Sem	Design of Machine Members-II	20ME6T19	Skill development	R20
III Year II Sem	Metrology and Instrumentation Laboratory	20ME6L13	Employability	R20
III Year II Sem	CAE and CAM Laboratory	20ME6L14	Employability	R20

III Year II Sem	Introduction to Artificial Intelligence and Machine Learning	20AM6T03	Employability	R20
III Year II Sem	Artificial Intelligence and Machine Learning Laboratory	20AM6S02	Employability	R20
III Year II Sem	Sensors and Transducers	20EC6T26	Employability	R20
III Year II Sem	Operations Research	20ME6T21	Employability	R20
III Year II Sem	Research Methodology	20HM6T10	Skill development	R20
III Year II Sem	Community Service Project	20ME5P01	Skill development	R20
III Year II Sem	Summer Internship 2 Months (Mandatory) after second year (to be evaluated during V semester)	20ME5I01	Skill development	R20
IV Year I Sem	CAD/CAM	20ME7T33	Employability	R20
IV Year I Sem	Design for Manufacturing	20ME7T32	Employability	R20
IV Year I Sem	Finite Element Methods	20ME7T27	Employability	R20
IV Year I Sem	Finite Element Methods	20ME7T27	Employability	R20
IV Year I Sem	Unconventional Machining Processes	20ME7T35	Employability	R20
IV Year I Sem	Refrigeration and Air-conditioning	20ME7T30	Employability	R20
IV Year I Sem	Condition Monitoring	20ME7T31	Employability	R20
IV Year I Sem	Non-Destructive Evaluation	20ME7T36	Employability	R20
IV Year I Sem	Additive Manufacturing	20ME7T28	Employability	R20
IV Year I Sem	Power Plant Engineering	20ME7T26	Employability	R20
IV Year I Sem	Power Plant Engineering	20ME7T26	Employability	R20
IV Year I Sem	Production Planning and Control	20ME7T37	Employability	R20
IV Year I Sem	Universal Human Values-II Understanding Harmony	20HM7T11	Entrepreneurship	R20
IV Year I Sem	Mechatronics Laboratory	20ME7S02	Skill development	R20
IV Year I Sem	MOOCs(NPTEL/SWAYAM) course (12 week Duration)	20ME7O04	Skill development	R20
IV Year I Sem	Optimization Techniques	20ME7T29	Skill development	R20
IV Year I Sem	Industrial/Research Internship	20ME7I02	Skill development	R20
I Year I Sem	Professional Communicative English	20HE1T01	Employability	R20
	Programming for Problem Solving Using C	20CS1T01	Skill development	R20
	Engineering Drawing	20ME1T02	Skill development	R20
	Professional Communicative English Laboratory	20HE1L01	Skill development	R20
	Applied Chemistry Laboratory	20BC1L02	Skill development	R20

B.Tech- Electronics and Communication Engineering		Programmingfor Problem SolvingUsingC Lab	20CS1L01	Skill development	R20	
	I Year II Sem	ObjectOrientedProgrammingt hroughJava	20CS2T04	Skill development	R20	
		Electronicworkshop	20EC2L01	Skill development	R20	
		BasicElectricalEngineeringLa boratory	20EE2L03	Skill development	R20	
	II Year I Sem	AppliedPhysicsLaboratory	20BP2L02	Skill development	R20	
		OOPSthroughJava Lab	20CS3L02	Skill development	R20	
		ElectronicDevicesandCircuits Lab	20EC3L02	Skill development	R20	
		SwitchingTheoryandLogicDes ign Lab	20EC3L03	Skill development	R20	
	II Year II Sem	InteractiveProgramming	20EC3L04	Skill development	R20	
		PythonProgramming	20CS4T03	Skill development	R20	
		PythonProgramming Lab	20CS4L03	Skill development	R20	
		ElectronicCircuitAnalysis Lab	20EC4L05	Skill development	R20	
		DigitalICApplicationsLab	20EC4L06	Skill development	R20	
			IoTApplications	20EC4L07	Skill development	R20
	III Year I Sem	AnalogICs andApplicationsLAB	20EC5L06	Skill development	R20	
		AnalogandDigitalCommunicat ions Lab	20EC5L07	Skill development	R20	
		SoftSkills and Interpersonal Communication	20HE5S01	Skill development	R20	
	III Year II Sem	MicroprocessorandMicrocontr ollers -Lab	20EC6L08	Skill development	R20	
		VLSIDesignLab	20EC6L09	Skill development	R20	
		DigitalSignalProcessing Lab	20EC6L10	Skill development	R20	
Arm/AurdinobasedProgrammi ng		20EC6S03	Skill development	R20		
IV Year I Sem	Designertools(HFSS,Microwa veStudioCST.CadenceVirtuos o.		Skill development	R20		
	Synopsys,MentorGraphics,Xil inx.)	20EC7S04	Skill development	R20		
	Industrial/ResearchInternship2 Months(Mandatory)afterthird year(tobeevaluatedduringVIIs emester		Skill development	R20		
IV Year II Sem	Projectwork,seminar and internship in industry	20EC8P01	Skill development	R20		
	I/I	Differential Equations and Numerical Methods	20BM1T01	Skill development	R20	

I/I	Applied Physics	20BP1T02	Skill development	R20
I/I	Professional Communicative English Laboratory	20HE1L01	Skill development	R20
I/I	Applied Physics Laboratory	20BP1L02	Skill development	R20
I/I	Programming for Problem Solving using C Laboratory	20CS1L01	Skill development	R20
I/II	Linear Algebra and Partial Differential Equations	20BM2T02	Skill development	R20
I/II	Applied Chemistry	20BC2T02	Skill development	R20
I/II	Applied Chemistry Laboratory	20BC2L02	Skill development	R20
I/II	Python Programming Laboratory	20CS2L03	Skill development	R20
I/II	Data Structures Laboratory	20IT2L02	Skill development	R20
I/II	Environment Science	20BE2T01	Skill development	R20
II/I	Transforms and Vector Calculus	20BM3T03	Skill development	R20
II/I	Advanced Data Structures through C Laboratory	20CS3L04	Skill development	R20
II/I	Unified Modeling Language Laboratory	20IT3L03	Skill development	R20
II/I	Database Management Systems Laboratory	20IT3L04	Skill development	R20
II/I	Animation – 2D Animation /	20IT3S01	Skill development	R20
	NoSQL databases	20IT3S02	Skill development	R20
II/I	Constitution of India	20HM3T05	Skill development	R20
II/II	Managerial Economics and Financial Analysis	20HM4T01	Skill development	R20
II/II	R Programming Laboratory	20CS4L06	Skill development	R20
II/II	Operating Systems Laboratory	20IT4L05	Skill development	R20
II/II	Java Programming Laboratory	20CS4L07	Skill development	R20
II/II	Animation – 3D Animation /	20IT4S03	Skill development	R20
	Web Application Development Using Full Stack - Frontend Development	20IT4S04	Skill development	R20
III/I	1. Surveying	20CE5T01	Skill development	R20
III/I	2. Renewable Energy Engineering	20EE5T13	Skill development	R20
III/I	3. Operations Research	20ME5T21	Skill development	R20

B.Tech -
Information
Technology

III/I	4. Principles of Communication Engineering	20EC5T15	Skill development	R20
III/I	Data Mining Techniques Laboratory	20IT5L06	Skill development	R20
III/I	Computer Networks Laboratory	20CS5L09	Skill development	R20
III/I	Continuous Integration and Continuous Delivery using DevOps	20IT5S05	Skill development	R20
III/II	1. Wireless Sensor Networks	20IT6T11	Skill development	R20
III/II	3. Design Patterns	20IT6T13	Skill development	R20
III/II	1. Disaster Management	20CE6T35	Skill development	R20
III/II	2. Fundamentals of Electric Vehicles	20EE6T19	Skill development	R20
III/II	3. Introduction to Automobile Engineering	20ME6T25	Skill development	R20
III/II	4. Sensors and Transducers	20EC6T26	Skill development	R20
III/II	Big Data Analytics Laboratory	20DS6L02	Skill development	R20
III/II	Machine Learning using Python Laboratory	20AM6L02	Skill development	R20
III/II	Cryptography and Network Security Laboratory	20IT6L07	Skill development	R20
III/II	Soft Skills and Interpersonal Communication	20HE6S01	Skill development	R20
IV/I	4. Computer Forensics	20CS7T15	Skill development	R20
IV/I	2. Social Networks Analysis	20IT7T15	Skill development	R20
IV/I	3. Human Computer Interaction	20CS7T11	Skill development	R20
IV/I	4. MOOCS-NPTEL/SWAYAM	20IT7O01	Skill development	R20
IV/I	4. MOOCS-NPTEL/SWAYAM	20IT7O02	Skill development	R20
IV/I	1. Highway Engineering	20CE7T11	Skill development	R20
IV/I	2. Battery Management Systems and Charging Stations	20EE7T29	Skill development	R20
IV/I	3. Additive Manufacturing	20ME7T28	Skill development	R20
IV/I	4. Industrial Electronics	20EC7T40	Skill development	R20
IV/I	1. Water Resource Engineering		Skill development	R20

	IV/I	2. Smart Grid Technologies	20CE7T13	Skill development	R20
	IV/I	3. Industrial Robotics	20EE7T30	Skill development	R20
	IV/I	4. Biomedical Instrumentation	20ME7T23	Skill development	R20
	IV/I	5. Marketing Management	20EC5T41	Skill development	R20
	IV/II	Major Project Work, Seminar, Internship	20IT7I02	Skill development	R20
B.Tech - Computer Science Engineering	I-II	Applications of Python-NumPy/ Web Application Development using Full Stack-Frontend Development-Module – I	20CS3S01/ 20CS3S02	Skill development	R20
	II-II	Applications of Python-Pandas/WebApplication Development using Full Stack-Frontend Development-Module – II	20CS4S03/ 20CS4S04	Skill development	R20
	III-I	1. Renewable Energy Engi	20EE5T13	Skill development	R20
		Animation course: Animation Design / Continuous Integration and Continuous Delivery using DevOps	20CS5S06/ 20IT5S05	Skill development	R20
		Summer Internship 2 Months(Mandatory) after second year(to be evaluated during V semester	20CS5I01	Skill development	R20
		1. Disaster Management	20CE6T35	Skill development	R20
	III-II	2. Fundamentals of Electric	20EE6T19	Skill development	R20
		3. Introduction to Automot	20ME6T25	Skill development	R20
		4. Sensors and Tran	20EC6T26	Skill development	R20
		4.MOOCs-NPTEL/S	20CS7O01	Skill development	R20
		4. MOOCs-NPTEL/SWAYAM	20CS7O02	Skill development	R20
		1. Battery Management Systems and Charging Stations	20EE7T29	Skill development	R20
	IV-I	2. Additive Manufacturing	20ME7T28	Skill development	R20
		3. Industrial Electronics	20EC7T40	Skill development	R20
		1. Smart Grid Technologies	20EE7T30	Skill development	R20
		2. Sustainable Energy Technologies	20ME7T38	Skill development	R20
		3. Biomedical Instrumentation	20EC7T41	Skill development	R20

4. Marketing Management	20HM7T04	Skill development	R20
Deep Learning using Python/A	20IT7S06/20	Skill development	R20