

1.1.3 Details of courses offered by the institution that focus on employability/ entrepreneurship/ skill development during the year.

1.2.1 Details of courses introduced across all programmes offered during the year

Name of the Course	Course Code
Chemistry	23SH1T03
Linear Algebra and Calculus	23SH1T04
Engineering Graphics	23ME1T01
Basic Electrical and Electronics Engineering	23EE1T01
Introduction to Programming	23IT1T01
Chemistry Lab	23SH1L03
Electrical and Electronics Engineering Workshop	23EE1L01
Computer Programming Lab	23IT1L01
IT Workshop	23IT1L02
Health and Wellness, Yoga and Sports	23PC1P01
Communicative English	23SH2T01
Electrical circuit Analysis-I	23EE2T03
Engineering Physics	23SH2T02
Differential equations and Vector Calculus	23SH2T05
Basic Civil & Mechanical Engineering	20ME2T02
Engineering Workshop	23ME2L01
Communicative English Lab	23SH2L01
Engineering Physics Lab	23SH2L02
Electrical Circuits – I Lab	23EE2L03
NCC / NSS / Scouts & Guides / Community service	23PC2P01
Design of Reinforced concrete structures	20CE5T01
Hydrology& Irrigation Engineering	20CE5T02
Engineering Geology & GIS	20CE5T03
Advanced Structural Analysis	20CE5T04
Non-conventional Energy sources	20OE5T01
Constitution of India	20GE5M01
Transportation Engineering Lab	20CE5L01
Engineering Geology Lab	20CE5L02
Skill Advanced Course –RIVET Architecture	20CE3S03
Summer Internship	20CE5I01
Advanced Structural Analysis	20CE5T04
Bridge Engineering	20CE5T04
Finite Element Analysis	20CE5T04
Entrepreneurship Development	20OE5T01
Design of Steel structures	20CE6T01
Geo Technical Engineering	20CE6T02

Environmental Engineering	20CE6T03
Pre-fabricated structures	20CE6T04
Database Management(IT)	20OE6T02
Intelliclual Property Rights & Patents	20GE6M04
STAAD Lab	20CE6L01
Geo Technical Engineering Lab	20CE6L02
Environmental Engineering Lab	20CE6L03
Soft Skills Course	20CE6S04
Pre-fabricated structures	20CE6T04
Business Environment	20OE6T02
Traffic Engineering & Management	20CE7T01
Construction Management & Cost Analysis	20CE7T02
Foundation Engineering	20CE7T03
MEMS(ECE)	20OE7T01
Optimization techniques (ME)	20OE7T02
Principles of Economics & Management	20HSE7T01
Skill Advanced course-	20CE7S05
Summer Internship	20CE7I02
Foundation Engineering	20CE7T03
Digital Marketing	20OE7T01
Human Resource development and OB	20OE7T02
Project-Project work, seminar and internship in Industry	20CE8P01
Optimization Techniques	20MEXO01
Robotics	20MEXO02
Industrial Management Sciences	20MEXO03
Automation in Manufacturing	20MEXO04
Dynamics of Machinery	20ME5T01
Design of Machine Members-I	20ME5T02
Instrumentation and Engineering Metrology	20ME5T03
IC Engines & Gas Turbines	20ME5E01
Industrial Robotics	20ME5E04
Industrial Management	20EE5O05
Environmental Sciences	20GE5M01
Theory of Machines Lab	20ME5L01
Instrumentation and Metrology Lab	20ME5L02
Skill Oriented Course-III	20ME5S01
Design of Machine Members-II	20ME6T01
Heat Transfer	20ME6T02
Operations Research	20ME6T03
Power Plant Engineering	20ME6E01
CAD/CAM	20ME6E04
Renewable Energy Sources	20EE6O02
Heat Transfer Lab	20ME6L01
Simulation Lab	20ME6L02

Computer Aided Production Drawing Lab	20ME6L03
Skill Oriented Course	20ME6S01
Intellectual Property Rights	20GE6M04
Finite Element Methods	20ME7E01
Reliability Engineering	20ME7E04
Mechanical Vibrations	20ME7E05
Production Planning Control	20ME7E08
Major Project work,	20ME8P01
MATLAB/Simulink	20EE3S01
Constitution of India	20GE3M01
Electrical Machines-II	20EE4T01
Control Systems	20EE4T02
Digital Electronics	20EC4T04
Data Structures & Algorithms	20CS4T04
Principles of Economics & Management	20SH4T02
Electrical Machines Lab-II	20EE4L01
Digital Electronics Lab	20EC4L03
Data Structures & Algorithms Lab	20CS4L04
PLC Programming for Automation	20EE4S01
Power Generation and Transmission Systems	20EE5T01
Electrical and Electronics Measurements	20EE5T02
Analysis of Signals and systems	20EC5T04
Industrial Electrical Systems and Energy Utilization(PEC-I)	20EC5E01
Special Electrical Machines(PEC-I)	20EE5E02
Advanced Control System(PEC-I)	20EE5E03
Analog and Digital Communication(PEC-I)	20EC5E05
Operating System(PEC-I)	20IT5E03
Fundamentals of Artificial Intelligence(OE-I)	20CI5O02
Intellectual Property Rights and Patents	20GE5M04
Control System and Simulation Lab	20EE5L01
Elect. and Electro. Measurements Lab	20EE5L02
JAVA Programing (Advanced level skill Oriented courses I)	20EE5S01
Summer Internship (During 2 Year)	20EE5I01
Power System Analysis and Protection	20EE6T01
Power Electronics	20EE6T02
Microprocessor and Microcontroller	20EC6T01
Power System Operation & Control(PEC-II)	20EE6E01
Line Commutated and Active Rectifiers(PEC-II)	20EE6E02
Instrumentation Engineering(PEC-II)	20EE6E03
Digital Signal Processing and Applications(PEC-II)	20EC6E05
Database Management System(PEC-II)	20IT6E06
JAVA Programing (OE-II)	20IT6O02
Professional Ethics and Human Values	20GE5M04
Power Systems and Programming Lab	20EE6L01

Power Electronics Lab	20EE6L02
Microprocessor and Microcontroller Lab	20EC6L04
DC Drives(PEC-III)	20EE7E02
BioMedical Engineering(PEC-III)	20EE7E03
VLSI System(PEC-III)	20EC7E05
Computer Networks(PEC-III)	20CS7E06
Solar and wind Energy Systems (PEC-IV)	20EE7E04
AC Drives (PEC-IV)	20EE7E05
Digital control system (PEC-IV)	20EE7E06
Embedded systems and Applications(PEC-IV)	20EC7E06
Principles of Software Engineering(PEC-IV)	20IT7E06
Industrial Automation(PEC-V)	20EE7E09
Digital Image and Video processing(PEC-V)	20EC7E07
Big-Data(PEC-V)	20EE8P01
Microprocessor and Microcontroller Lab	20EC6L04
Soft Skill Courses-ECE	20SH6S01
Numerical Methods & Transformations	20SH3T03
Electronic Devices and Circuits	20EC3T01
Digital System Design	20EC3T02
Signals and Systems	20EC3T03
Managerial Economics and Financial Analysis	20SH3T01
Electronic Devices and Circuits Lab	20EC3L01
Digital System Design Lab	20EC3L02
OOP's Through C++ Lab	20CS3L03
Skilloriented Course-I	20IT3S01
Indian Constitution	20GE3M01
Electronic Circuit Analysis	20EC4T01
Analog Communication	20EC4T02
Electro Magnetic Waves and Transmission Lines	20EC4T03
Control Systems	20EE4T02
Data Structures	20CS4T04
Electronic Circuit Analysis Lab	20EC4L01
Analog Communication Lab	20EC4L02
Data Structures using Lab	20CS4L04
SkillOrientedCourse-II	20IT4S01
Microprocessor and Microcontrollers	20EC5T01
Linear IC applications	20EC5T02
Antennas and Wave Propagation	20EC5T03
ELECTRONIC MEASUREMENTS & INSTRUMENTATION	20EC5E01
PULSE AND DIGITAL CIRCUITS	20EC5E02
COMPUTER ARCHITECTURE AND ORGANIZATION	20EC5E03
Random V ariable Stochastic Process	20EC5E04
Data Base Management System	20ITX001
Intellectual Property Rights and Patents	20GE5M04
Microprocessor and Microcontrollers Lab	20EC5L01

Linear IC applications Lab	20EC5L02
Advanced VLSI	20EC5S01
Summer Internship During 2 Year	20EC5I01
Digital Signal Processing	20EC6T02
VLSI Design	20EC6T03
Digital Communications	20EC6T04
EMBEDDED SYSTEMS	20EC6E01
DATA COMMUNICATIONS	20EC6E02
TELECOMMUNICATION SWITCHING NETWORKS	20EC6E03
Digital IC Applications.	20EC6E04
Professional Ethics and Human Values	20GE6M02
Digital Signal Processing Lab	20EC6L02
VLSI Design Lab	20EC6L03
Digital Communication Lab	20EC6L04
Soft Skills	20EC6S01
INFORMATION THEORY AND CODING	20EC7E01
WIRELESS SENSOR NETWORKS	20EC7E02
OPTICAL COMMUNICATIONS	20EC7E03
Radar Engineering	20EC7E04
SATELLITE COMMUNICATIONS	20EC7E05
Low Power VLSI Design	20EC7E06
INTERNET OF THINGS	20EC7E07
MICRO WAVE ENGINEERING	20EC7E08
DIGITAL IMAGE PROCESSING	20EC7E09
PHOTONIC DEVICES	20EC7E10
CELLULAR MOBILE COMMUNICATION	20EC7E11
NANO ELECTRONICS	20EC7E12
MANAGEMENT SCIENCE	20EC7M01
PRINCIPLES OF COMMUNICATIONS	20ECX001
DIGITAL IMAGE PROCESSING	20ECX002
BIO-MEDICAL ENGINEERING	20EC6O03
Design of IoT Systems	20EC6O04
MEMS	20ECX005
MECHATRONICS	20ECX006
Software Engineering	20CS3T03
Data Structures & Algorithms	20CS3T05
Object Oriented Programming through Java	20IT3T01
Discrete Mathematics	20IT3T03
Computer Organization and Architecture	20CS3T02
Constitution of India	20GE3M01
Object Oriented Analysis and Design Lab	20CS3L02
Data Structures & Algorithms Lab	20CS3L03
Object Oriented Programming through Java lab	20IT3L01
Mobile App Development	20CS3S01
Probability & Statistics	20SH4T05
Formal Languages and Automata Theory	20CS4T02
Database Management Systems	20CS4T01

Web Technologies	20IT4T02
Managerial Economics and Financial Analysis	20SH4T01
Database Management Systems Lab	20CS4L01
Web Technologies Lab	20IT4L02
Data Visualization Lab	20CS4L02
Mongo DB	20CS4S01
Data Warehousing and Data Mining	20CDXO03
Operating systems	<b>20IT5T01</b>
Design and Analysis of Algorithms	<b>20IT5T02</b>
Operating systems	<b>20IT5T01</b>
<b>Open Elective-I</b>	<b>20EC50XX</b>
<b>Professional Elective - I</b>	<b>20CS5EXX</b>
1. Data warehousing and Data Mining	
2. Software Project Management	
3. Object Oriented Analysis and Design	
4. Advanced Unix Programming	
5. Advanced Computer Architecture	
Professional Ethics and Human Values	20GE5M01
Computer Networks Lab	20CS5L01
Unix Operating Systems Lab	20IT5L02
<b>Skill Oriented CourseIII /Soft Skill Course</b>	<b>20CS5S01</b>
<b>Summer Internship 2 Months (Mandatory) after second year (to be evaluated during V semester)</b>	
Cryptography and Network Security	
Compiler Design	20CS6T02
Artificial Intelligence	20CS6T03
<b>Open Elective-II</b>	<b>20EC60XX</b>
<b>Professional Elective - II</b>	<b>20CS6EXX</b>
1. Cloud Computing	
2. Big Data Analytics	
3. Machine Learning	
4. Network Programming	
5. Internet of Things	
IPR & PATENTS	20GE6M04
Cryptography and Network Security Lab	20CS6L01
Compiler Design Lab	20CS6L02
Artificial Intelligence Lab using Python	20CS6L03
Soft Skills	20SH6S01
<b>Professional Elective - III</b>	<b>20CS7E01</b>
<b>1. Mobile Computing</b>	
2. Neural Networks and Soft Computing	
3. Ad-hoc and Sensor Networks	
4. Deep Learning Techniques	
5. Information Retrieval System	
<b>Professional Elective - IV</b>	

<b>1. Distributed systems</b>	20CS7E06
2. Social Networks & Semantic Web	
3. Computer Vision	
4. MOOCS-NPTEL / SWAYAM	
5. Game Theory	
<b>Professional Elective - V</b>	20CS7E11
<b>1. Block Chain Technologies</b>	
2. Quantum Computing	
3. Ethical Hacking	
4. MOOCS-NPTEL / SWAYAM	
5. Parallel Algorithms	
<b>Open Elective-III - Optimization techniques - ME</b>	
<b>Open Elective-IV - Bio Medical Engineering -ECE</b>	
Humanities and Social Science Elective – Entrepreneurship Development - MBA	20SH7E04
Summer Internship (During 3 years)	20CS7I01
Advanced skill-oriented course - II	20CS7S01
Major Project Work, Seminar, Internship in industry	20CS8P01
Object Oriented Programming through Java	20IT3T01
Principles of Software Engineering	20IT3T02
Discrete Mathematics	20IT3T03
Computer Organization and Architecture	20CS3T02
Data Structures & Algorithms	20CS3T03
Object Oriented Programming through Java lab	20IT3L01
Object Oriented Analysis and Design Lab	20CS3L02
Data Structures & Algorithms Lab	20CS3L03
R Programming	20IT3S01
Probability & Statistics	20SH4T01
Web Technologies	20IT4T02
Theory of Computation	20IT4T03
Database Management Systems	20CS4T01
Managerial Economics and Financial Analysis	20SH4T05
Web Technologies Lab	20IT4L02
Database Management Systems Lab	20CS4L01
Data Visualization Lab	20CS4L02
Mongo DB	20IT4S01
Computer Networks	20CS5T01
Operating Systems	20IT5T01
Design and Analysis of Algorithms	20IT5T02
Software Project Management	20IT5E02
Principles of Communications	20EC5O01
Intellectual Property Rights and Patents	20GE5M04
Computer Networks Lab	20CS5L01
Unix Operating Systems Lab	20IT5L01
REACT JS	20IT5S01
Summert Internship(During 2 Year)	20IT5I01

Cryptography and Network Security	20CS6T01
Big Data Analytics	20CD6T01
Data Mining	20IT6T01
Cloud Computing and Security	20IT6E01
Introduction to Internet of Things	20EC6004
Cryptography and Network Security Lab	20CS6L01
Big Data and Hadoop Lab	20CD6L01
Data Ming Lab	20IT6L01
Soft Skills	20SH6S01
Mobile Computing	20IT7E01
Software Testing Methodologies	20IT7E07
Block Chain Technologies and Applications	20IT7E10
Optimization Techniques	20ME7001
Bio Medical Engineering	20EC7003
Entrepreneurship Development	20SH7E01
Ethereum	20IT7S01
Summer Internship (During 3 Year)	20IT7I01
Project Work / internship in Industry	20IT8P01
Probability & Statistics	20SH3T05
Mathematical Foundations of Computer Science	20CS3T04
Data Structures & Algorithms	20CS3T05
Fundamentals of Data Science	20CD3T01
Database Management Systems	20CS3T01
Constitution of India	20GE3M01
Data Structures & Algorithms Lab	20CS3L03
Fundamentals of Data Science Lab	20CD3L01
Database Management Systems Lab	20CS3L01
Mobile App Development	20CS3S01
Numerical Methods & Transformations	20SH4T03
Object Oriented Programming Through Java	20IT4T01
Formal Languages and Automata Theory	20CS4T02
Data warehousing and Mining	20CD4T01
Managerial Economics and Financial Analysis	20SH4T01
Object Oriented Programming Through Java Lab	20IT4L01
Data Mining using Python Lab	20CD4L01
R Programming Lab	20CS4L03
Mongo DB	20CS4S01
Design and Analysis of Algorithms	20IT5T01
Machine Learning	20CI5T02
Operating Systems	20IT5T02
Open Elective-I	20XX5O1X
Professional Elective-I 1. Software Engineering 2. Object Oriented Analysis and Design 3. Principles of Programming Languages 4. Internet of Things	20CD5E1X

Professional Ethics & Human values	20GE5M03
Operating Systems Lab	20CD5L01
Machine Learning Lab	20CI5L02
Skill Oriented Course - III 2. Google Firebase	20CD5S01
Computer Networks	20CD6T01
Big Data Analytics	20CD6T02
Neural Networks And Deep Learning	20CD6T03
Open Elective- II	20XX6O2X
Professional Elective- II 1. Compiler Design 2. <i>Software Project Management</i> 3. Distributed Systems 4. Fundamentals of Robotics	20CD6E2X
IPR & Patents	20GE6M03
Computer Networks Lab	20CD6L01
Big Data & Hadoop Lab	20CD6L02
Mini Project with Seminar	20CD6P01
Skilled Oriented Course - IV 1. <b>Object Recognizagion using AI&amp;ML</b> . 1. Amazon Web Services / DevNet 2. Continuous Integration and Continuous Delivery using DevOps	20CD6S01
Natural Language Processing	20CD7E3X
Cryptography and Network Security	20CD7E3X
Image and video processing	20CD7E3X
Information security	20CD7E3X
Block Chain Technologies	20CD7E3X
Artificial Intelligence	20CD7E4X
Cloud Computing	20CD7E4X
Computer Vision	20CD7E4X
Human Computer Interaction	20CD7E4X
Social Network Analysis	20CD7E5X
Recommender Systems	20CD7E5X
Data Visualization	20CD7E5X
Introduction to Internet of things	20XX7O3X
Enterpreneuershiop development	20XX7O4X
Text Mining	20CD7E5X
Management Science	20SH7T01
Industrial/Research Internship 2	20CD7PR01
Soft Skills	20CD7S01
Major Project Work, Seminar, Internship	20CD8P01
Probability & Statistics	20SH3T05
Mathematical Foundations of Computer Science	20CS3T04
Data Structures & Algorithms	20CS3T05
Object Oriented Programming through Java	20IT3T01
Introduction to Artificial Intelligence	20CI3T01
Constitution of India	20GE3M01

Data Structures & Algorithms Lab	20CS3L03
Object Oriented Programming through Java lab	20IT3L01
Introduction to Artificial Intelligence Lab	20CI3L01
Mobile App Development	20CS3S01
Numerical Methods & Transformations	20SH4T03
Computer Organization	20CI4T01
Database Management Systems	20CS4T01
Formal Languages and Automata Theory	20CS4T02
Managerial Economics and Financial Accountancy	20SH4T01
Database Management Systems Lab	20CS4L01
Web Application Development Lab	20CI4L01
R Programming Lab	20CS4L03
Fundamentals of Robotics	20CI4S01
Introduction to Artificial Intelligence	Minor
Design and Analysis of Algorithms	20IT5T01
Machine Learning	20CI5T02
Operating Systems	20IT5T02
Professional Elective -1 1. Software Engineering 2. Compiler Design 3. Data Visualization 4. Artificial Neural Networks	20CI5E1X
<b>Open Elective -1</b>	20XX5O1X
<b>Skill Oriented Course - III</b>	20CI5S01
Professional Ethics and Human Values	20GE5C03
<b>Summer Internship one Month (Mandatory) after second year(to be evaluated during third year)</b>	
Machine Learning Lab	20CI5L02
Operating Systems Lab	20IT5L02
Machine Learning\$	Minor
Computer Networks	20CD6T01
Deep Learning	20CI6T01
Expert Systems	20CI6T02
Professional Elective -2 1. Software Project Management 2. Distributed Systems 3. Internet of Things 4. Data Warehousing and Data Mining	20CI6E2X
<b>Open Elective-II</b>	20XX6O2X
<b>Skill Oriented Course – IV</b>	20CI6S01
Intellectual property rights and patents	20GE6M03
Deep Learning Lab	20CI6L01
Computer Networks Lab	20CI6L02
Mini Project with seminar	20CI6P01
Deep Learning\$	Minor

Professional Elective-III 1. Reinforcement Learning 2. Soft Computing 3. Cryptography and Network Security 4. NOSQL Databases 5. Natural Language Processing	20CI7E3X
Professional Elective-IV 1. Robotic Process Automation 2. Cloud Computing 3. Big Data Analytics 4. Block Chain Technologies 5. Image & Video Analytics	20CI7E4X
Professional Elective-V 1. Social Network Analysis 2. Recommender Systems 3. Computer vision 4. Mining Massive Data Sets 5. Semantic Web	20CI7E5X
Open Elective - IV	20XX704X
Management Science	20SH70XX
Skill Oriented Course -V	20CI7S01
Reinforcement Learning\$ Minor courses through SWAYAM	Minor
Project work - Phase II	20CI8P1

<b>Activities/Content with a direct bearing on Employability/ Entrepreneurship/ Skill development</b>
Employability
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Skill development
Entrepreneurship





















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