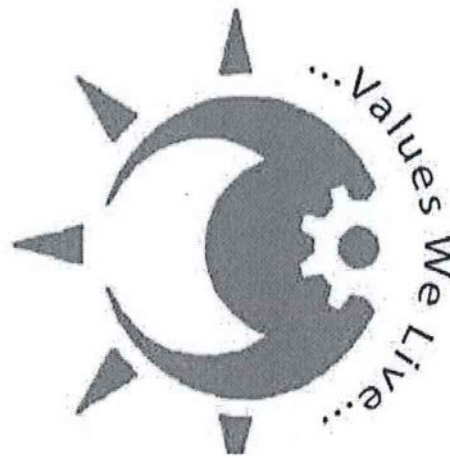


sasi INSTITUTE OF
autonomous TECHNOLOGY &
ENGINEERING

Accredited by **NAAC** with "A" Grade,
Recognised by UGC under section 2(f) & 12(B)
Approved by **AICTE** - New Delhi
Permanently Affiliated to JNTUK, SBTET,
Ranked as "A" Grade by Govt. of A.P.,



Courses Mapping to Local, Regional, National, & Global Development Needs

Coordinator, IQAC
Sasi Institute of Technology &
Engineering (A), Tadepalligudem,
W.G.Dist., A.P.

Principal
Sasi Institute of Technology & Engineering (A)
Tadepalligudem, W.G.Dt., A.P.


S.No.	Course Name	Government Initiatives	Justification
Department of Mechanical Engineering			
1.	Engineering Graphics	Skill India	This course aims to provide students with fundamental knowledge of technical drawing professions and methods of communicating with others, in accordance with a government initiative. Make in India Initiative
2.	Work Shop/ Manufacturing practice	Skill India	This course provides the fundamental skills required for the production of various carpentry, fitting, and sheet metal products, in accordance with the Government Initiative Skill India Program.
3.	Manufacturing Processes	Make in India	The primary goal of this course is to emphasise the importance of manufacturing sciences in everyday life, as well as to study the basic manufacturing processes and tools used, in accordance with a government initiative. Make
4.	Thermodynamics	Make in India	This course teaches you how to apply various thermodynamic laws, which is in line with the government's Make in India initiative.
5.	Materials Engineering	Make in India	The overall goal of the course is to impart knowledge about engineering materials and their properties, as well as to predict their behaviour under various working conditions and methods to improve mechanical properties, in accordance with a government initiative. Produced in India
6.	Manufacturing Processes Lab	Skill India	The objective of this course is to recognize the tools, materials, machines used for making products in foundry, welding and machine shop which in line with the Government initiative Make in India Program
7.	CAEDP Lab	Skill India	The objective of this course is to impart the


S.No.	Course Name	Government Initiatives	Justification
			fundamental knowledge on using various modelling and analysis tools for Engineering Simulation
8.	Strength of Materials	Make in India	The objective of this course is to gain basic knowledge in mechanics of materials so that the students can solve real engineering problems and design which is in line with Government initiative Make in India real systems
9.	Fluid Mechanics & Fluid Machines	Make in India	The objective of this course is to understand the dynamics of fluid flows and the governing non-dimensional parameters and apply concepts of mass, momentum and energy conservation to gain knowledge on Impact of jets, basics of jet propulsion, basic concepts of turbines, centrifugal pump and reciprocating pumps which is in line with Government initiative Make in India Program
10.	Theory of Machines-I	Make in India	The objective of this course is to gain knowledge on relative motion, velocity, and accelerations of the various elements in a mechanism and to gain knowledge on cams/gears gear trains
11.	Applied Thermodynamics	Make in India	The objective of this course is to gear the student with basic principles of steam properties and to prepare the student for industrial application of steam which is in line with Make in India
12.	Fluid Mechanics & Fluid Machines Lab	Skill India	The objective of this course is to understand the working principles and fundamentals of Fluid mechanics, turbines and pumps
13.	Machine Drawing	Skill India	The objective of this course is to provide an understanding and draw the assembly and production drawing of various engine components and machine tool components which is in line with Government initiative Skill India Program

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14.	Biology for Engineers	Make in India	To familiarize the students with the basic biological concepts and their engineering applications which is in line with Department of Biotechnology, Ministry of Science and Technology
15.	Manufacturing Technology	Make in India	The objective of this course is to describe the mechanisms of the various machine tools, types of machine tools, various operations that can be performed on them, machining time and force calculations etc and knowledge on fundamentals of Metrology and Measurement Engineering concepts, different tools used for minute measurements, and calibrate various kinds of measuring instruments which is in line with Government initiative make in India
16.	Design of Machine Elements	Make in India	The objective of this course is to formulate and analyse stresses and strains in machine elements like shafts, springs etc and structures under static and/or dynamic load conditions which is in line with Make in India
17.	Heat Transfer	Make in India	The objective of this course is to make the student calculate the heat transfer phenomena through conduction, convection and radiation which is in line with Government initiative Make in India Program
18.	Heat Transfer Lab	Skill India	This course is designed to introduce a basic study, the phenomena of heat and mass transfer, and provide useful information concerning the performance and design of particular systems and processes
19.	Manufacturing Technology & Metrology Lab	Skill India	The objective of this course is to recognize the tools, materials, machines used for making products in foundry, welding and machine shop and to expose the students to various mechanical and electrical

S.No.	Course Name	Government Initiatives	Justification
			engineering measuring devices, and understand the different degree of accuracy obtained from different types of instruments.
20.	Theory of Machines-II	Make in India	The objective of this course is to develop knowledge of analytical and graphical methods for calculating balancing of rotary and reciprocating masses.
21.	Design of Transmission Systems	Make in India	The objective of this course is to Design various machine components such as gears, bearings, brakes, clutches, Internal combustion engine parts like cylinder, pistons and connecting rod which is in line with Government initiative Make in India Program
22.	Theory of Machines Lab	Skill India	The objective of this course deals with practical approach four bar chain mechanisms
23.	Thermal Engineering Lab	Skill India	The objective of this course deals with practical approach to I.C Engines Deal with basic trouble shooting aspects and specifications of Car model
24.	Modelling & Simulation Lab	Skill India	The objective of this course is to model various mechanical engineering components using modelling software which is in line with Government initiative Make in India
25.	Operation Research	Make in India	This course aims to give knowledge on solving different optimization problems mathematically and different methods to method to solve the optimal solution which is in line with these Government Initiatives
26.	Internal Combustion Engines (Elective - I)	Make in India	The objective of this course is to gain the knowledge of basic gas power cycles and combustion phenomena, various performance factors and design aspects of SI and CI Engines and to gain the knowledge of gas turbine cycles which is in line with Make in India Program

S.No.	Course Name	Government Initiatives	Justification
27.	Power Plant Engineering (Elective -II)	Make in India	This course gains knowledge on basic concepts of generation of power and different aspects of power plants which is in line with Government initiatives Ujwal Bharat
28.	CAD/CAM (Elective -II)	Make in India	The objective of the course is to teach the basic principles of CAD which includes computer graphics which is in line with Government initiative Make in India Program
29.	Finite Element Methods (Elective -III)	Make in India	The objective of this course is to perform structural analysis using finite element methods which is in line with Government initiative Make in India Program
30.	Automobile Engineering (Elective -IV)	Make in India	The objective of this course is to analyse various types and working principles of clutch, gearbox, drive shaft and final drive systems
31.	Mechatronics (Elective -IV)	Make in India	The course is designed to equip the students with fundamental knowledge on mechatronics system and to learn about practical applications of mechatronic systems
32.	Refrigeration and Air Conditioning (Elective -VI)	Make in India/Local Needs	The objective of this course is to understand the principles of refrigeration and air craft refrigeration systems
33.	Quality & Reliability Engineering (Elective -VI)	Make in India	The overall objective of the course is to teach the basic principles of Quality management which is in line with Government initiative Make in India Program
34.	Computer Integrated Manufacturing	Make in India	The course is designed to equip the students with fundamental knowledge on CIM and to learn about practical applications of CIM.
35.	Intelligent Manufacturing Systems	Make in India	The objective of this course is to describe the mechanisms of the various modern machine tools, types of tool posts, various operations that can be performed on them, machining time and force


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S.No.	Course Name	Government Initiatives	Justification
			calculations etc and knowledge on fundamentals of Metrology and Measurement Engineering concepts.
36.	Computational Fluid Dynamics	Make in India	The objective of this course is to understand the dynamics of fluid flow and the governing non dimensional parameters and apply concepts of mass, momentum and energy conservation to flows.
37.	Modelling and Analysis of Manufacturing Processes Lab	Skill India	The objective of this course is to modelling of product in software and to the recognize the tools, materials, machines used for making and to expose the students to various mechanical and electrical engineering measuring devices, and understand the different degree of accuracy obtained from different types of instruments.
38.	Computer Graphics	Make in India	This course ability to apply modular programming and recursive solution formulation.
39.	Mechanics and Manufacturing Methods of Composites	Make in India	The course is designed to equip the students with fundamental knowledge on composites and to learn about practical applications of mechanics and manufacturing methods of composite systems.
40.	Design for Manufacturing	Make in India	The objective of this course is to formulate and analyse stresses and strains in machine elements like shafts, springs etc and structures under static and/or dynamic load conditions.
41.	Computer Aided Process Planning	Make in India	The objective of the course is to enable the students to plan the process in sequence to manufacturing process.
42.	Term Paper with Seminar	Skill India	The course is designed to enable the students in writing the term paper with fundamental knowledge and present the data through seminar.
43.	FEA Lab	Make in India	The objective of this course deals with practical approach to Finite element analysis I.C Engines Deal with basic trouble shooting aspects and specifications

S.No.	Course Name	Government Initiatives	Justification
			of Car model
44.	Self-Learning Course: CNC Technology & Programming	Skill India	The course is designed to equip the students with fundamental knowledge on CNC technology and to learn about practical applications of CNC programming.
45.	Internship with Seminar	Skill India	The course is designed to enable the students to do internship in any industry to impart the knowledge present the data through seminar.
46.	Project Work Phase-I	Skill India	The objective of this course is to collect the literature review from various sources and prepare the abstract and action planning for the fabrication or analysis.
47.	Project Phase-II	Skill India	The objective of this course is to teach students various project planning, estimate the cost of the projects and fabricating using resources and project the analyzed data through proper documentation.
48.	Materials Technology	Make in India	The overall goal of the course is to impart knowledge about engineering materials and their properties, as well as to predict their behaviour under various working conditions and methods to improve mechanical properties, in accordance with a government initiative.
49.	Advanced CAD Lab	Skill India	The course is designed to acquaint the students with the necessary knowledge to send part programmed to CNC machine and being able to machine parts.
50.	Research Methodology and IPR	Make in India	The objective of this course is to collect the literature review from various sources and prepare the abstract and action planning for the patent filing.
51.	Writing Skills for Scientific Communication	Skill India	The overall goal of the course is to enable the students to publish the paper in journal ensuring the right format and alignment.
52.	Theory of Elasticity and Plasticity	Make in India	The overall goal of the course is to predict the

S.No.	Course Name	Government Initiatives	Justification
			behaviour under different working conditions and methods to enhance the mechanical properties.
53.	Product Design and Development	Make in India	The objective of this course is to design and develop the various machine components such as gears, brakes, bearings, IC engine components.
54.	Materials Characterization Techniques	Make in India	The objective of this course is to perform structural analysis using Materials Characterization Techniques and prepare the analysis data.
55.	Optimization & Reliability	Make in India	This course aims to give knowledge on solving different optimization problems mathematically and different methods to method to solve the optimal solution which is in line with these Government Initiatives
56.	Additive Manufacturing	Make in India	The objective of this course deals with the various additives in combine with materials to enhance their properties under extreme conditions.
57.	Material Characterization Lab	Make in India	The objective of this course is to enable the students perform structural analysis using Materials Characterization Techniques and analyze the data.
58.	Simulation of Manufacturing Systems Lab	Make in India	The objective of this course is to impart the fundamental knowledge on using various modelling and analysis tools for engineering simulation.
59.	Mini Project with Seminar	Skill India	The objective of this course is to teach students various project planning and scheduling tools and how to estimate the cost of the projects. Also ensures the students to collect the data and present.
60.	Personality development through life Enlightenment skills	Make in India	The overall goal of the course is to impart Personality development by adopting the enlightening skills to grow in behavioural society.
61.	Non-destructive Evaluation	Make in India	The objective of this course deals with significance of various non destructive testing methods and processes

S.No.	Course Name	Government Initiatives	Justification
			the data.
62.	Quality Engineering	Make in India	The overall objective of the course is to teach the basic principles of Quality management which is in line with Government initiative Make in India Program
63.	Green Manufacturing	National Environmental policy	The objective of this course deals with significance of green energy systems and processes and provides the theory working principles of probable sources of renewable and green energy systems that are environmentally friendly.
64.	MOOCS/ NPTEL *	Skill India	The objective of this course is to provide Massive Open Online Courses for students to impart knowledge.
65.	Nano Technology	Make in India	The objective of this course deals with significance of various Nano Technology methods and enhances the properties.
66.	Optimization Techniques	Make in India	This course aims to give knowledge on solving different optimization problems mathematically and different methods to method to solve the optimal solution which is in line with these Government Initiatives
67.	Product Design and Manufacturing	Make in India	The course is designed to equip the students with fundamental knowledge on product design and to learn about practical applications of design and manufacturing methods.
68.	Project Work Phase-I	Skill India	The objective of this course is to collect the literature review from various sources and prepare the abstract and action planning for the fabrication or analysis.
69.	Project Work Phase-II	Skill India	The objective of this course is to teach students various project planning, estimate the cost of the projects and fabricating using resources and project the analyzed data through proper documentation.

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Department of Management Science			
70.	Principles of Management	Skill India	Focus on the development of Management Thought and its relevance to business. and familiarize with the knowledge, roles, responsibilities, and skills required for a modern manager
71.	Managerial Economics	MSME	Focus on the basic concepts of Economics pertinent to business Decision Making. and familiarize the various concepts of Managerial Economics and illustrates the various market structures and price determination in various markets
72.	Accounting For Managers	Startup India	It summarizes the basic concepts of Accounting and explain the various procedures and standards of Accounting, classify the various cost concepts and cost estimation tools and techniques and describe the various Cost Accounting Techniques and Methods
73.	Managerial Communication & Soft Skills	Skill India	It describes the importance of Business and Managerial Communication and demonstrate the various Business Writing skills
74.	Quantitative Analysis for Business Decisions	Survey of India	It describes the importance of Mathematics and Statistical Techniques in Decisions Making, various Operations Research Techniques and illustrate the Project Management Techniques
75.	Business Environment	Make in India	It emphasises business environment at National and International Level and gives an overview of Indian Economy with Economic Reforms
76.	Information Technology Lab	Digital India	The IT Workshop is a training lab course to get training on PC Hardware, Internet & World Wide Web and Productivity tools for documentation, Spreadsheet computations, and Presentation.
77.	Financial Management	Skill India	To acquaint students with the finance and financial management concepts and techniques influencing

S.No.	Course Name	Government Initiatives	Justification
			business organisation. To understand different financial policies preparation of financial statement and uses of financial tools and techniques. To know the various inventories, cash working capital, receivables. Valuation methods
78.	Marketing Management	Skill India	To describe the concepts of marketing and the marketing system. To demonstrate the Indian Marketing Environment and its relevance to Marketing Decisions. To analyse the various elements of Marketing Mix
79.	Human Resource Management	Skill India	Summarises HR functions & its implementation process in the firm and various methods to settle the disputes & different Trade unions.
80.	Production & Operations Management	Startup India	Illustrates Operations management in the overall business strategy of the firm and interdependence of the operating system with other key functional areas of the firm.
81.	Research Methodology	Survey of India	It gives an understanding of various research designs and techniques, identifies various sources of information for data collection and present various types data analysis techniques
82.	Organisational Behaviour	Startup India	It will demonstrate the key concepts of Organisational Behaviour and concepts of Organizational Culture, Design and Development
83.	Strategic Management	Startup India	It focus on various business strategies in general and functional management areas. and importance of Environmental Scanning in Strategic formulation.
84.	Legal Aspects of Business	Startup India	It Presents the important provisions of various commercial laws in India
85.	Business Ethics & Corporate Governance	Skill India	It creates awareness on good Business and Corporate Governance and business ethics

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86.	Security Analysis & Portfolio Management	Security Exchange Board of India (SEBI)	It provides insight about the relationship of the risk and return and familiarize the with the fundamental and technical analysis of the diverse investment avenues
87.	Banking & Insurance Management	PMJJBY (PM Jevan Jyothi Bhima Yojana)	It gives a snapshot on Financial and Banking Institutions in India and an overview of Insurance Industry in India
88.	Project Management	Startup India	It illustrate the various Project Feasibility studies and steps in Project Life Cycle and present the project evaluation methodology and project evaluation techniques.
89.	Strategic Financial Management	Security Exchange Board of India (SEBI)	Summarises the concepts of Financial management from strategic perspective and to familiarize various Techniques and Models of Strategic Financial Management.
90.	Consumer Behaviour	Skill India	It discusses the principal factors that influence consumers as individuals and decision makers with an application to the buying decision process.
91.	Retail Management	Skill India	It discusses the various retail strategies and retail locations in India and various Retail pricing strategies at retail stores in India.
92.	Customer Relationship Management	Skill India	It demonstrates the various CRM strategies adopted by the companies.
93.	Digital & Social Media Marketing	Digital India	It focuses on the basic and concurrent concepts in Digital & Social Media marketing
94.	Leadership Management	Skill India	It focuses on Leadership Development in organisations. and demonstrate the various cross cultural Leadership across the globe
95.	Compensation and Reward Management	Startup India	It demonstrates the various wage concepts and the Wage and Salary Administration in India.
96.	Performance Management	Skill India	It focuses on the various performance management

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			skills and performance management systems
97.	Strategic Human Resource Management	Skill India	It distinguish the HRM and Strategic HRM.and describes the Strategic Human Resource Development
98.	Logistics & Supply Chain Management	SATAT (Sustainable alternative towards affordable transportation)	It provide the tools to analyze and solve business problems and International Supply Chain Management
99.	Entrepreneurship Development	MSME	It focuses on the process of business idea generation and converting the idea into a business model.
100.	Financial Markets & Service	Security Exchange Board of India (SEBI)	Understand the structure of Indian Financial System and the role of SEBI. and describes the regulatory framework of Financial Services in India.
101.	Global Financial Management	Security Exchange Board of India (SEBI)	It provides inputs on International Monetary Systems and its understanding to enable a global manager to do business in a global setting.
102.	Financial Risk Management	Security Exchange Board of India (SEBI)	Focuses on the various techniques and tools of Risk Management and familiarize the various risk measurement techniques
103.	Tax Management	Startup India	It describes the Legal Principles of Taxation Laws in India and presents the various tax management decisions in company.
104.	Services Marketing	Skill India	Understand how to develop effective service marketing strategies that emphasizes the value exchange between suppliers and their customers. Discuss how marketing managers go about developing profitable customer relationships in the Services marketing area
105.	Promotion & Distribution Management	Startup India	It describes the various Promotional tools and its objectives.
106.	Global Marketing Management	Skill India	It distinguish between Domestic Marketing and International Marketing and discusses the various Strategies of Market Entry at International Level.

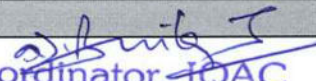
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107.	Rural Marketing	Skill India	It describes the overview of Rural Economy and Policy interventions and demonstrate the overview of Rural Marketing in India and its potentialities.
108.	Global HRM	Skill India	It Identifies and analyses the problems in the field of HRM and be able to provide innovative solutions
109.	Organizational Development and Change Management	Skill India	It discusses the nature of change management in organisation and various Organisational Development interventions.
110.	Labour Welfare Legislation	PDUSJY (Pandit Deendayal Upadhyay Shramev Jayate Yojana)	It describes the various Labour Legislations and familiarise the concept of employee welfare and various programmes
111.	Management of Industrial Relations	PDUSJY (Pandit Deendayal Upadhyay Shramev Jayate Yojana)	It presents the various Social Security Measures in India and Employee Grievance Mechanism in India
Department of Information Technology			
112.	Data Structures	Skill India	The objective of this course is to develop programming skills among the students and applying suitable data structure for getting faster and effective solutions which is in line with skill India programme
113.	IT WORKSHOP LAB	Skill India	This course gives the ability to apply scientific and mathematical formulation for the industrial applications which is in line with government initiative skill India programme
114.	Data Structures Lab	Skill India	The objective of this course is to develop programming skills among the students and applying suitable data structure for getting faster and effective solutions which is in line with skill India programme
115.	Computer Organization	Skill India	This course gives the ability to apply the IoT related applications by using the modular programming and recursive solution formulation which is in line with government initiative skill India programme


S.No.	Course Name	Government Initiatives	Justification
116.	Algorithm Design & Analysis	Skill India	This course gives the ability to apply optimal procedures to get optimal solution for the given problem recursive solution formulation which is in line with government initiative skill India programme
117.	Computer Organization Lab	Skill India	This course gives the ability to apply the IoT related applications by using the modular programming and recursive solution formulation which is in line with government initiative skill India programme
118.	Java Programming	Digital India/Smart cities mission	This course gives the ability to design develop platform independent & robust applications by which can support digital India with high end security using applets and swings.
119.	Java Programming Lab	Digital India/Smart cities mission	This course gives the ability to design develop platform independent & robust applications by which can support digital India with high end security using applets and swings.
120.	Algorithm Design & Analysis Lab	Skill India	This course gives the ability to get optimal solutions for the given problem by applying optimization techniques to formulate which is in line with government initiative skill India programme
121.	Personality Development & Professional Communication	Skill India	This course gives the basic technical speaking knowledge for each student to work as a team which is in line with government initiative skill India Programme
122.	Computer Networks	Cyber Security Policy, Crime And Criminal Tracking Network And Systems(CCTNS)	In depth knowledge of various network protocols and ethical hacking which deals with cyber security aspects and algorithms. The student can have ability to recognize the threats and give a solution to be secured.
123.	Operating Systems	Skill India	This course gives the ability to design new secured systems to interact with the kernel to make secured systems which is in line with government initiative

S.No.	Course Name	Government Initiatives	Justification
			skill India programme
124.	Computer Networks Lab	Cyber Security Policy, Crime And Criminal Tracking Network And Systems(CCTNS)	In depth knowledge of various network protocols and ethical hacking which deals with cyber security aspects and algorithms. The student can have ability to recognize the threats and give a solution to be secured.
125.	Operating Systems Lab	Skill India	This course gives the ability to design new secured systems to interact with the kernel to make secured systems which is in line with government initiative skill India programme
126.	R Programming Lab	Skill India	This course gives the ability to apply data analytics for the data and to form new solutions(estimation COVID infected in future) which is in line with government initiative skill India programme
127.	Database Systems	Skill India	This course gives the ability to apply efficient design, storage and manipulation of the data of the public and private companies which is in line with government initiative skill India programme
128.	Database Systems Lab	Skill India	This course gives the ability to apply efficient design, storage and manipulation of the data of the public and private companies which is in line with government initiative skill India programme
129.	Python Programming Lab	Digital India/Smart cities mission	This course gives the ability to apply data analytics and machine learning algorithms for prediction and to interact with IoT applications
130.	Cryptography and Network Security	Cyber Security Policy, Crime And Criminal Tracking Network And Systems(CCTNS)	This course gives the ability to design applications that provides highest security and minimizes the threat to the society during digital data transmission and electronic money transactions.
131.	Data Warehousing & Mining	Skill India	This course gives the ability to predict the ability of providing decision making systems which is in line with government initiative skill India programme

S.No.	Course Name	Government Initiatives	Justification
132.	Cyber Security	Cyber Security Policy, Crime And Criminal Tracking Network And Systems(CCTNS)	In depth knowledge of various network protocols and ethical hacking which deals with cyber security aspects and algorithms. The student can have ability to recognize the threats and give a solution to be secured.
133.	Artificial Intelligence	Make in India, national solar mission MNRE, petroleum conservation research association	These concepts are at the heart of a lot of technological innovations that can act/think like a human being at the moment. The opportunities in these fields are diverse and those with a working knowledge of these subjects will find a wide range of available roles.
134.	Mobile Computing	Cyber Security Policy, Crime And Criminal Tracking Network And Systems(CCTNS)	In depth knowledge of various mobile computing techniques and developing mobile applications for cellular and PDAs which deals with cyber security aspects and algorithms
135.	Machine Learning	Make in India, national solar mission MNRE, petroleum conservation research association	This course gives the ability to design applications to enhance the applications that has the capability to improve the learning capability using the historical data or context. This provides the intelligence to the machine to enact as per the new context or situations.
136.	Ad-hoc & Sensor Networks	Cyber Security Policy, Crime And Criminal Tracking Network And Systems(CCTNS)	In depth knowledge of various network protocols which deals with cyber security aspects and algorithms. The student can have ability to recognize the threats and provide a suitable solution to protect from cyber threats..
137.	Cyber Forensics	Cyber Security Policy, Crime And Criminal Tracking Network And Systems(CCTNS)	This course gives the ability to develop the applications which can protect from the cyber crimes and tracking the cyber crimes.
138.	Data Science Using Python	Digital India/Smart cities mission	This course gives the ability to develop applications which can enhance the efficient prediction of scientifically challenges and bio sciences.

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139.	Engineering Mechanics	Make in India	The Objective of this course is to deal with mechanics of machines, stress analysis which is in line with the government initiative "Make in India"
140.	Computer Programming using C	Skill India	This Course aims impart knowledge on computer programming skills required for any problem analysis which is in line with Government initiative "Skill India"
141.	IPR& Patents	National IPR Policy	This course aims to impart knowledge on patents required for research projects which is in connection with Government initiative "National IPR Policy"
142.	Project Work, Artificial Intelligence, Machine Learning	Make in India, National Solar Mission, MNRE, Petroleum Conservation Research Association	These concepts are at the heart of a lot of technological innovation at the moment. The opportunities in these fields are diverse, and those with a working knowledge of the subjects will find a wide range of available roles.
143.	Electronics Workshop Practice	Make in India	This course gives a basic introduction of electronic hardware systems and provides hands -on training with familiarization ,identification ,testing, assembling ,and dismantling.
144.	Electronic Device and Circuits	National Policy of Electronics	This course gives the basic working knowledge required for the understanding of how electronic circuits and their functions fit into larger electronic systems.
145.	Computer Organization	Skill India	This Course gives the ability to apply Modular Programming and recursive solution formulation which is in line with government initiative skill India Program
146.	Constitution of India	National Social Justice and empowerment policies	The objective of this course is to understand the autonomous nature of constitutional bodies like Supreme Court and High court controller and auditor general of India and election commission of India


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147.	Linear IC s and Applications	National Policy on Electronics	The objective of this course is to understand the characteristics of op-amp which helps to design and analyse linear circuits, non -linear circuits, oscillators, active filters and various applications.
148.	Computer Architecture and Organization	National Policy on Electronics	The objective of this course is to understand how computers represent and manipulates data, helps to Learn the art of Micro Programming. And helps to develop the general architecture design of digital computer ,independent learning skills to interface main memory &I/O
149.	Digital Integrated Circuits & Hardware Descriptive Language Lab	Skill India	The objective of this course are Synthesize , Simulate and implement a digital design in a configurable digital circuit /HDL Programming with digital trainer kit and FPGA tools and Acquire Knowledge of analysis and synthesis of combinational and sequential circuits
150.	Linear Integrated Circuits & Pulse Circuit Lab with Simulation	Skill India	This Course is designed to understand the characteristics of RC low pass and High pass circuits, understand the operation of UJT sweep Generator and able to design and test Schmitt trigger using op-amp and different types of Multi vibrators with the help of breadboard /Multisim
151.	Microprocessor and its Applications	Make in India	This Course is designed to understand, analyse architecture of the 8085 and 8086 microprocessors and familiarize with the 8085 and 8086 programming ,Hardware and software requirements in interfacing and designing microprocessor based products for practical applications
152.	Radar & Navigation	Airport Authority of India	This course is designed to acquire the knowledge on working principals of various radars, Applying various mathematical equations to measure the Range and

S.No.	Course Name	Government Initiatives	Justification
			angle information of the targets from the radar Analysing Radar Systems, advantages, limitations and their applications, Navigational Aids like LORAN, DECCA and VOR and design of radar signals, MTI, Pulse Doppler radar and various tracking Radars.
153.	DSP Laboratory	Skill India	The Basic objectives of this course are to learn the MATLAB coding for basic mathematical operations to complex operations like FET ,Able to Design and analyse LTI systems & Digital Filters ,Understand the image processing techniques
154.	Microprocessor and Microcontrollers Lab	Skill India	The Basic objectives of this course are to learn the Assembly language programming of Intel microprocessors & micro controller and provide practical hands on experience with microprocessor software applications and interfacing techniques
155.	VLSI Design	National Policy on Electronics	The Objectives of this course are understand current trends in semiconductor technology and how it impacts scaling and performance and understanding the basic concepts of FPGA and low power VLSI Design and apply the Concept of design rules during the layout of a circuit
156.	VLSI Lab	Skill India	This course designed to learn the work flow of mentor graphic tools /Cadence tools for logic gates ,Combinational and sequential Circuits and to Simulate and analyse combinational and Sequential circuits with EDA tools.
157.	Personality Development through Life Enlightenment Skills	Skill India	This Course gives the basing working knowledge required for each student to work as a team which is line with Government Initiative Skill India Program
158.	Telecommunication switching and Networks	Telecommunication infrastructure development	This Course aims to gain an understanding of switching design, how it has evolved, and some key

S.No.	Course Name	Government Initiatives	Justification
		policy	Switching architectures used today
159.	Advanced Computer Networks	Agri Market	This Course aims to familiarity with the basic protocols of computer networks ,and how they can be used to assist in network design implementation.
160.	Radar Signal Processing	Airport Authority of India	The Objective of this course is to drive Radar range and Design of matched filter for different noises
161.	Network Analysis and Synthesis	Make in India	This Course aims in gaining basic knowledge of basic electrical elements and analysis of network which is in connection with Government Initiative make in India
162.	Electrical Measurements & Instruments	Make in India	This Course aims in gaining basic knowledge of Measurement of different parameters in the transmission lines which is in connection with Government Initiative make in India
163.	Networks & Measurements Lab	Skill India	The objective of this course is to find voltage/current/power for different parameters and too port network parameters which helps in the transmissions line design which is in line with skill India
164.	Control Systems	Make in India	This course deals with the controlling of different system parameters which helps in the design of controller leads to stable operation of the system which is in line with the government make in India
165.	Digital Electronics & Logic Design	Make in India	This course aims to give the knowledge on Boolean algebra which helps in the design of integrated circuits which is connect with the government initiative make in India
166.	Microprocessor and Microcontroller Lab	Skill India	the objective of this course is to understand the operation of microprocessor µcontroller practically which helps the design of PLC 's which is in line with make India
167.	Employability Skills	Skill India, start-up India	this course aims to give impart knowledge on verbal and soft skills and quantitative aptitude which is in

S.No.	Course Name	Government Initiatives	Justification
			line with government initiatives skill India deals with employability entrepreneurship skills
168.	Operations Research	Make in India	This course aims to give the knowledge on solving different optimization problems mathematically and different methods to solve the optimal solution which is in line with government initiatives
169.	Digital Logic Design	Digital India / Smart Cities Mission	To promote sustainable and inclusive cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of smart solutions
170.	Digital Electronics & Microprocessors Lab	Skill India	The course gives the ability to apply modular programming and recursive solution formulation which is in line with government initiative skill India program
171.	Analog Electronic Circuits	Survey of India	The objective of this course is to gain knowledge about different coordinates systems used in GPS ,position determination
172.	Electronic Devices & Circuits Lab	National Policy of Electronics	This course gives the basic working knowledge required for the understanding of how electronic circuits and their functions fit into larger electronic systems.
173.	Switching Theory & Logic Design	Skill India	This Course gives the ability to apply Modular Programming and recursive solution formulation which is in line with government initiative skill India Program
174.	Electromagnetic Field theory & Transmission Lines	Survey of India	The Objective of this course is to gain knowledge about different coordinates systems used in GPS, Position determination
175.	Analog Commutations	Survey of India	The Objective of this course is to gain knowledge about different coordinates systems used in GPS, Position determination

S.No.	Course Name	Government Initiatives	Justification
176.	Analog Commutations Lab	survey of India	The Objective of this course is to gain knowledge about different coordinates systems used in GPS, Position determination
177.	Analog Electronic Circuits Lab with Simulation	Survey of India	The Objective of this course is to gain knowledge about different coordinates systems used in GPS, Position determination
178.	Analog Electronic Circuits	Survey of India	The Objective of this course is to gain knowledge about different coordinates systems used in GPS, Position determination
179.	Python programming	Digital India / Smart Cities Mission	To Promote Sustainable and inclusive cities that provide core infrastructure and give a decent quality of life it is citizens , a clean and sustainable environment and application of "SMART "Solutions
180.	Embedded systems #OE	Skill India	This Course gives the ability to apply Modular Programming and recursive solution formulation which is in line with government initiative skill India Program
181.	Antennas and wave propagation	Survey of India	The Objective of this course is to gain knowledge about different coordinates systems used in GPS, Position determination
182.	Digital signal processing	Skill India	This course gives the ability to apply Modular Programming and recursive solution formulation which is in line with government initiative skill India Program
183.	Radar engineering	Airport authority	The Objective of this course is to drive Radar range and Design of matched filter for different noises
Department of Computer Science & Engineering			
184.	Engineering Mathematics	National Mathematics Initiative	The objective of the present course is to develop collaboration to solve various multidisciplinary research problems using mathematical knowledge.
185.	Engineering Chemistry	National Programme on Advanced	The current course provide knowledge on battery


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