1.2.1 New courses offered by the institution during the last five years

AY 2020 - 21

S. No	Programme Name	Course Name	Course code	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development	Link
1	AE	Applied Hydraulics and Pneumatics	618MEO01	Skill development - Familiar with applications, advantages of the fluid power engineering and transmission systems.	View
2	AE	Structural Dynamics	618AEE12	Employability - Study the principles of model testing and Analysis	
3	AE	Aircraft Interior Design Laboratory	618AEP10	Skill development - students are create aircraft components design and analaysis	
4	ARCH	Structure and Architecture	518ARE01	Employability - Familiarize the students with the concept of structural design through various architect works and integrate the contemporary structural design in the form making process of architectural design.	View
5	ARCH	Waste management and recycling	518ARE02	Employability - Equip the students about the categorizing of waste and recycling the waste products and integrate the learning into architectural design.	
6	ARCH	Safety systems and building management	518ARE03	Employability - Impart knowledge on safety requirements of high-rise buildings, fire alarm systems, integrated building management system in multi storied building designs.	
7	ARCH	Contemporary Building Materials	518ARE04	Employability - Focus on various contemporary materials and understanding its characteristics with respect to the context and integrate in building design.	View
8	ARCH	Valuation of Real Properties	618CEO02	Employability/ Entrepreneurship/ Skill Development - Familizing the students with the issues in financing and investing in real estate with an emphazing on commercial land values.	
9	ARCH	Product Design	618ARE02	Employability/ Entrepreneurship/ Skill Development - To inculcate design centric approach satisfying the user needs, prototype fabrication.	
10	ARCH	BIM	618ARE03	Employability/ Entrepreneurship/ Skill Development - Empowering students to use computers as 2D drafting and 3D modelling tool and to familiarize realistic rendering and architectural presentation techniques using computers.	
11	BT	Health & Pharmaceutical Biotechnology Lab	618BTP08	Employability - The Course provides skills like design, manufacturing of drugs. The course also provides insight into the standard protocols to be followed in a drug manufacturing facility	View
12	CH	Probability and Statistics	518PST01	Skill development- Suggest the quality of interpretation and decision making in real time problems of uncertainty, real time application of	View

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				probability distributions	
13	CH	Introduction to Colloidal Science and Interfacial Engineering	518CHE03	Skill development-Concepts, tools of colloid and interface science, multi-phase nano-systems; mechanics and thermodynamics on small scales, surface and bulk dominated regimes and behavior and exploitation of nano-behavior	
14	CH	Finite Element Analysis	518MEO01	Skill development-Examine 2-D finite element continuum for structural applications, solve 1-D and 2-D heat transfer and fluid flow problems using finite element approach	
15	CH	Chemical Reaction Engineering-I	618CHT02	Skill development-Apply the basic principles of reaction kinetics, reactor design and non-ideality in reactors in process industries, choose a suitable single or multiple reactor system, design a reactor, nonideal flow reactors, concept of heterogeneous reactions	
16	CH	Health & Pharmaceutical Biotechnology	618BTO04	Skill development- Design the formulations of various dosage forms, pharmacokinetics and metabolisms of drugs	
17	CE	Geographic Information System	518CEE02	Employability-gain knowledge on various spatial analysis tools for deriving GIS based outcome	
18	CE	Geo informatics Applications for Civil Engineers	518CEE03	Skill Development-gai knowledge on the applicability of Geoinformatics technology in diverse Civil Engineering problems	
19	CE	Air Pollution and Control Engineering	618CEE01	Employability-Provides knowledge in Environmental Engineering and Pollution Control, hence student to get employment in core industry	
20	CE	Environmental and Social Impact Assessment	618CEE03	Employability-gain knowledge and skills to identify, assess and mitigate the environmental and social impacts of developmental projects. Also support the students to develop with new start-ups and environmental assessment and audit systems	
21	CE	Industrial Wastewater Treatment	618CEE04	Skill Development - gain knowledge on the application of physic-chemical, biological and advanced treatment methods for recovery, reuse and disposal of wastewaters in Indian Industries	View
22	CE	Integrated Water Resource Management	618CEE06	Employability - Acquire a clear insight into the subject matter of participatory ideology with its rudiments under the light of both national and international illustrative cases	
23	CE	Participatory Water Resources Management	618CEE07	Employability - gain knowledge on local and global perceptions and approaches on participatory water resource management	
24	CE	Water Resources Systems and Engineering	618CEE10	Employability - gain knowledge about problem formulation and solutions in water resource systems	
25	CE	Personality Development	618ARO01	Employability - Develop qualities suited for the profession	
26	CE	Electrical Drives and Controls	618EEO01	Entrepreneurship-Skill to analyze the operation of the	

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				converter / chopper fed dc drive and to solve simple problems	
27	CE	Electrical and Electronic Measurements	618EIO01	Entrepreneurship-Gain Knowledge in the characteristics and working of measurements systems	
28	CE	Environmental Instrumentation	618EIO03	Employability - gain knowledge on water quality parameters and pollution measurements techniques	
29	CE	Engineering Economics and Cost Analysis	618MEO01	Employability-gain knowledge on finance handling and it is an essential skill for an engineer	
30	CSE	Object Oriented Analysis and Design	518CIT03	Skill Development -This course enables the students to analyse a software system or business by using Object Oriented concepts with ARGO UML tools.	
31	CSE	Object Oriented Analysis and Design Laboratory	518CIP07	Skill Development -This course enables the students to analyse, design a software system or business by using Object Oriented concepts with ARGO UML tools.	
32	CSE	Advanced Java Programming	518CIE03	Employability- This course helps to students to develop their skills in Java based application development	
33	CSE	Employability Skill Laboratory	518CIP08	Employability - Students can help to identify Skill gaps and plan your Skill Development to build a portfolio of Skills valued by employers.	View
34	CSE	Software Testing	518CSE04	Employability - this course helps in analysing and testing, also working with software models and designs	
35	CSE	Network Design and Management	618CSE04	Employability -Social Network Analysis helps in enhancing the common to all fields analytics Skills	
36	CSE	Data Mining Laboratory	618CSP08	Skill Development- this course helps to work practically with metadata and store them in a storage grid and perform metadata handling	
37	ECE	Smart Sensors	518EIO05	Employability-Student able to design and develop sensors for real time applications	
38	ECE	Soft Computing and Applications	618ECE05	Skill Development- Students learn about soft computing applications	
39	ECE	Speech Processing	618ECE06	Skill Development- Able to analyse and process signals in communication industry	
40	ECE	Robotics Engineering	618ECE02	Employability/Skill Development-Students write algorithms, design & develop circuits for automated robots for real time applications.	View
41	ECE	Intellectual Property Rights	618BAO02	Employability-Know about it importance, organizations and agencies importance of intellectual property rights.	
42	ECE	Cloud Computing	618CSO03	Skill Development-Helps students to understand the various cloud and utility computing concepts.	
43	ECE	Internet of Things	618CSO04	Skill Development- A Physical design to interact a device with internet application explored the embedded system.	

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44	EEE	Mechatronics and Robotics	518MEO07	Skill Development- This course develops the basic skills in the fields of mechatronics and robotics.	
45	EEE	Computer Organization	518ITO08	Skill Development- This course develops the basic skills about the architectrue of computer organization.	View
46	EEE	Artificial Intelligence and Data Science	618EEE04	Skill Development- This course gives the knowledge about the AI and Big data analytics that develops the students' skills.	
47	EIE	Communication Theory	518ECO06	Skill Development - Understand the concepts of modulation and demodulation, fiber optic communication system and data communication codes	
48	EIE	C# and Dot Net Programming	518ITO06	Skill Development - Develop Console application using object-oriented concepts, advanced features in C#	
49	EIE	Computer Graphics and Multimedia	518ITE05	Skill Development - Design and Apply Three-Dimensional Graphics and Visible Surface Detection Methods	
50	EIE	Java Programming	618ITO05	Skill Development - Design a GUI-based application using Applets &Swings and Understand the usage of Utility & Generic Classes	View
51	EIE	Artificial Intelligence and Data Science	618EEE04	Skill Development - Familiar with the idea of intelligent agents and Data Science	
52	EIE	Renewable Energy Sources	618EET05	Skill Development - Necessity and potential advantages of renewable energy resources like solar thermal and PV system over fossil fuels	
53	IT	Computational Intelligence	518ITT04	Skill Development - Apply linear regression and logistic Regression machine learning system	
54	IT	Employability Skills Laboratory	518CIP09	Employability - Students can help to identify skill gaps and plan your Skill Development to build a portfolio of skills valued by employers.	
55	IT	Real Time Systems	518ITE04	Employability- Provides knowledge in design, simulate and implement, hence student to get employment in product development industry	
56	IT	Scripting Languages	618ITT01	Skill Development - This course is to provide students with an overview of the concepts and fundamentals of Principles of Programming Languages.	View
57	IT	Object Oriented Modeling and Design	618ITT04	Skill Development -This course enables the students to analyse, design a software system or business by using Object Oriented concepts.	
58	IT	Scripting Languages laboratory	618ITP08	Skill Development - This course is to provide students can ability to understand the differences between Scripting languages and programming languages	
59	IT	Object Oriented Modeling and Design Laboratory	618ITP09	Skill Development -This course enables the students to analyse, design a software system or business by using Object Oriented concepts with ARGO UML tools.	

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60	IT	Social Network Analysis	618ITE03	Employability -Social Network Analysis helps in enhancing the common to all field's analytics skills	
61	ME	Design of Experiments	618MEE01	Employability - Students will have a solid foundation for statistical concepts for experimental design which will be more useful in designing components for industrial requirements.	View
62	ME	Operations Research	618MEE10	Employability - This course will enhance the students to apply CPM and PERT techniques to reduce the cycle time of the product in industry.	
63	MCA	Python Programming	120CAT02	Skill Development-Applications based on Scripting and object-oriented concept for the development of real time applications.	
64	MCA	Python Programming Lab	120CAP06	Skill Development- Program based on Scripting and object-oriented concept for the development of real time applications.	
65	MCA	Object Oriented Programmig using Java	220CAT02	Skill Development- Java Programming with J2EE and J2ME Concept implemented to develop an application	View
66	MCA	Advanced JavaScripting Languages	518CAT02	Skill Development- Analytical and Technical Skills were developed in the Angular Js, Node Js, React Js etc.,	
67	MCA	Advanced JavaScripting Languages Lab	518CAL01	Skill Development- Lab Program with Analytical and Technical Skills were developed in the Angular Js, Node Js, React Js etc.,	