

List of Honours, Minor Specialization, DE, OC as Approved by BoS for 2017 Admitted Batch

Name of the Department: Computer Science and Engineering

Session	Semester	Courses for Honours	Courses for Minor Specialization	Open Courses offered(OC)	DE Courses Offered
Jul-Dec 2019	V	<ol style="list-style-type: none"> 1) Advanced Computer Architecture 2) Data Science for Engineers 3) The Joy of Computing using Python 	<ol style="list-style-type: none"> 1) Operating System Fundamentals 2) Database Management System 3) Object oriented analysis and design 	Nil	Nil
Jan-June 2020	VI	<ol style="list-style-type: none"> 1) Multi-Core Computer Architecture - Storage and Interconnects 2) GPU Architectures and Programming 3) Artificial Intelligence: Knowledge Representation and Reasoning 	<ol style="list-style-type: none"> 1) Introduction to algorithms and analysis 2) Programming, Data Structures and Algorithms Using Python 3) Programming in Java 	OC-1 <ol style="list-style-type: none"> 1) Data Structures 2) Python Programming 3) Software Engineering 	DE-1 <ol style="list-style-type: none"> 1) Network & Web Security 2) Image Processing 3) Mobile Computing DE-2 <ol style="list-style-type: none"> 4) Data Analytics with Python 5) Introduction to Machine Learning 6) Cloud computing
Jul-Dec 2020	VII	<ol style="list-style-type: none"> 1) Introduction to Industry 4.0 and Industrial Internet of Things 2) Deep Learning 3) Big Data Computing 	<ol style="list-style-type: none"> 1) Object Oriented System Development using UML, Java and Patterns 2) Cloud computing 3) Computer Graphics 	OC-2 <ol style="list-style-type: none"> 4) Soft Computing 5) Network Security 6) Data Mining & Warehousing OC-3 <ol style="list-style-type: none"> 1) R Programming 2) Artificial Intelligence 3) Computer Networks 	DE-3 <ol style="list-style-type: none"> 1) Networking with TCP/IP 2) Data Mining & Warehousing 3) Distributed Systems DE-4 <ol style="list-style-type: none"> 1) Practical Machine Learning with Tensorflow 2) Scalable Data Science 3) Introduction to internet of things
Jan-June 2021	VIII	<ol style="list-style-type: none"> 1) User-centric computing for Human-Computer Interaction 2) Reinforcement Learning 3) Information Security-5-Secure Systems Engineering 4) Foundations of Cryptography 	<ol style="list-style-type: none"> 1) Foundations of Cryptography 2) Introduction to Machine Learning 3) GPU Architecture and Programming 	Pool of OC-4 and OC-5 <ol style="list-style-type: none"> 1) Privacy and Security in Online Social Media 2) Introduction to internet of things 3) Data Science for Engineers 4) Social Networks 	DE-5 <ol style="list-style-type: none"> 1) Social Networks 2) Privacy & security in online social media

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Semester	Department Electives (DE)	Open Courses(OC)	Honours	Minors
V Batch 2019-20	----	-----	<ol style="list-style-type: none"> 1) The Joy of Computing using Python 2) Advanced computer architecture 3) Cloud computing 	<ol style="list-style-type: none"> 1) Programming in C++ 2) Programming, Data Structures and Algorithms in Python 3) Introduction to Operating Systems 4) Cloud computing
VII Batch 2018-19	DE-3 <ol style="list-style-type: none"> 1) Networking with TCP/IP 2) Data Mining & Warehousing 3) Distributed System DE-4 <ol style="list-style-type: none"> 1) Cloud Computing 2) Deep learning – IITRopar 3) Software Testing 	OC-2 <ol style="list-style-type: none"> 1) Soft Computing 2) Network Security OC-3 <ol style="list-style-type: none"> 1) R Programming 2) Computer Networks 	<ol style="list-style-type: none"> 1) Deep Learning for Computer Vision 2) Parameterized Algorithms 3) Big Data Computing 	<ol style="list-style-type: none"> 1) Computer Graphics 2) Theory of Computation 3) Software Testing