

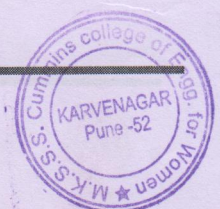
Open Elective I (Humanities)
Autonomous Program Structure
Third Year B. Tech. Fifth Semester
Computer Engineering
Academic Year: 2022-2023 Onwards

Course Code	Course Title	Teaching Scheme Hours /Week			Examination Scheme				Marks	Credits
		Lecture	Tutorial	Practical	In Semester	End Semester	Oral	Practical		
20CE501	Computer Networks	3	1	0	50	50	0	0	100	4
20CE502	Design and Analysis of Algorithms	3	0	0	50	50	0	0	100	3
20CE503	Software Design and Architecture	3	1	0	50	50	0	0	100	4
20PECE 501	Programme Elective-I	3	0	0	50	50	0	0	100	3
20PECE 502	Programme Elective-II*	3	0	0	50	50	0	0	100	3
20OEHS 501	Open HS Elective –I	3	0	0	50	50	0	0	100	3
20CE501L	Computer Networks Laboratory	0	0	2	25	0	0	25	50	1
20CE504L	Programming Skills Development- II Laboratory	0	0	4	25	0	25	0	50	2
20PECE 501L	Programme Elective Laboratory-I	0	0	2	25	0	25	0	50	1
	Total	18	2	8	375	300	50	25	750	24
	Grand Total		28			750				24

Programme Elective-I	Programme Elective-I Laboratory	Programme Elective-II
20PECE501A Digital Image Processing 20PECE501B Java Full Stack Technologies 20PECE501C Statistics for Computer Science 20PECE501D Linux Internals	20PECE501LA Digital Image Processing 20PECE501LB Java Full Stack Technologies 20PECE501LC Statistics for Computer Science 20PECE501LD Linux Internals	* NPTEL / Swayam Course

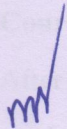
APPROVED BY
Secretary Governing Body
MKSSS's Cummins College of Engineering
Department of Computer Engineering
For Women, Pune-411052

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Chairman Governing Body
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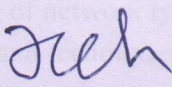


Open Elective I (Humanities)

Sr. No.	Course Code	Course Title
1	20OEHS501A	Entrepreneurship Development
2	20OEHS501B	Intellectual Property Rights
3	20OEHS501C	Introduction to Digital Marketing
4	20OEHS501D	Law for Engineers
5	20OEHS501E	Organizational Behaviour
6	20OEHS501F	Project Management



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Unit I: Introduction to Computer Networks (7)
Definition, Types of Networks: Local area networks (LAN), Metropolitan area networks (MAN), Wide area networks (WAN), Wireless networks, Protocol, Design Issues for the Network layers, Network Models: The OSI Reference Model, TCP/IP Model, Network Topologies, Types of Transmission Medium, Network Architectures: Client Server, Peer To Peer, Hybrid, Network Devices: Bridge, Switch, Router, Gateway, Access Point, Modulation, Line Coding Schemes, Switching: Circuit switching, Packet switching, Multiplexing: FDM, TDM

Unit II: Data Link Layer (8)
Introduction, functions, Design Issues, Services, Framing, Error Detection and correction, Parity Bits, Hamming Codes and CRC, Flow Control Protocols: Unrestricted Simplex, Stop and Wait,