



MAULANA AZAD
NATIONAL INSTITUTE OF TECHNOLOGY, BHOPAL-462003
COMPUTER SCIENCE AND ENGINEERING DEPARTMENT
M Tech in Computer Networking
SCHEME OF STUDY (w.e.f. July 2022)

First Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
CN 511	Mathematical Foundations of Computer Networks	3	-	-	3
CN 512	Computer & Network Security	3	-	-	3
CN 513	TCP/IP and Web Technology	3	-	-	3
CN 514	Wireless Networks	3	-	-	3
HUM 511	Communication Skills	2	-	-	3
	Elective-1 (A)	3	-	-	3
	Elective-2 (B)	3	-	-	2
CN 515	Lab-I	-	-	2	1
CN 516	Seminar-I	-	-	2	1
Total Hours: 24 Total Credits:22		Total Semester Credits			22

Second Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
CN521	Network Devices& Programming	3	-	-	3
CN522	Stochastic Process & Queuing Theory	3	-	-	3
CN523	Graph Theory & Network Algorithms	3	-	-	3
	Elective-3(A)	3	-	-	3
	Elective-4(A)	3	-	-	3
	Elective-5(C)	3	-	-	3
MTH524	Research Methodology	1	1	-	2
CN525	Lab-II	-	-	2	1
CN526	Seminar-II	-	-	2	1
Total Hours: 24 Total Credits:44		Total Semester Credits			22

Third Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
CN611	Dissertation Phase-I	-	-	32	16
Total Hours: 32 Total Credits: 60		Total Semester Credits			16

Fourth Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
CN621	Dissertation Phase-II	-	-	40	20
Total Hours: 40 Total Credits: 80		Total Semester Credits			20

List of Program Electives A		List of Open Electives C	
CN 551	Internet of Things (IoT)	ARP 581	Introduction to Urban Planning
CN 552	Cloud Computing	BSE 581	Bioprocess Engineering
CN 553	Ad hoc & Sensor Networks	BSE 582	Biophysics Tool and Engineering
CN 554	Mobile Computing	CHE 581	Analytical Techniques
CN 555	Information Theory and Coding	CHE 582	Green Technology and Processes
CN 556	Network Analysis and Design	CE 581	Solid Waste Management
CN 557	Organization of Web information	CE 582	Basic Concept of GIS
CN 558	Network Science and Modeling	CE 583	Road Safety
CN 559	Storage Area Networks	PHY 581	Nanotechnology and Nanoscience
CN 560	Next Generation Networks	EE 581	Electric Machines and Applications
CN 561	Software Defined Networking and Network Function Virtualization	EE 582	Control and Instrumentation
		ECE 581	Introduction to Fuzzy Logic
List of Departmental Electives B		ECE 582	Neural Networks and Applications
IS 513	Cybercrime & Information Warfare	EC 581	Energy Resource Technologies
AC 512	Advanced Data Structures	HUM 581	Intellectual Property Rights for Engineers
AI 513	Machine Learning	HUM 582	Applied Psychology: Human Centered Design and Engineering
AI 514	Soft Computing	MTH 581	Advanced Operations Research
AI 552	Reinforcement Learning	MTH 582	Computing Technologies
AC 553	Web Search & Information Retrieval	ME 581	Value Engineering
		ME 582	Design thinking
		ME 583	Mechatronics and NDT Engineering
		MME 581	Advanced Instrumentation Methods for Material Analysis
		MME 582	Smart Materials and Their Applications
		MBA 581	Engineering Startup Management