

Maulana Azad



**NATIONAL INSTITUTE OF TECHNOLOGY, Bhopal-462003**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**M. Tech. in Computer Science & Engineering**

**With Specialization in: Computer Networking**

**SCHEME OF STUDY (Revised April 2020)**

**First Semester**

Course No.	Subject	Schemes of Studies Periods per week			Total Credits
		L	T	P	
CN 101	Mathematical Foundations of Computer Networks	3	1	-	4
CN 102	Computer & Network Security	3	1	-	4
CN 103	TCP/IP	3	1	-	4
CN 104	Wireless Networking	3	1	-	4
	Elective 1(A)	3	1	-	4
	Elective 2(B)	3	1	-	4
CN 105	NPTEL/MOOC Communication Skills	2	-	-	2
CN 106	Lab-I	-	-	2	1
CN 107	Seminar-I	-	-	2	1
<b>Total Hours 30</b>		<b>Total credits</b>			<b>28</b>
<b>Total Credits (Cumulative) 28</b>					

**Second Semester**

Course No.	Subject	Schemes of Studies Periods per week			Total Credits
		L	T	P	
CN201	Network Devices & Programming	3	1	-	4
CN202	Stochastic Process & Queuing Theory	3	1	-	4
CN203	Graph Theory & Network Algorithms	3	1	-	4
	Elective3(A)	3	1	-	4
	Elective4(A)	3	1	-	4
	Elective 5(C)	3	1	-	4
CN204	Lab - II	-	-	2	1
CN205	Research Methodology, Technical Report and Paper Writing	-	2	-	1
CN206	Seminar-II	-	-	2	2
<b>Total Hours 30</b>		<b>Total credits</b>			<b>28</b>
<b>Total Credits (Cumulative) 56</b>					

**Third Semester**

<b>Course No.</b>	<b>Subject</b>	<b>Schemes of Studies Periods per week</b>			<b>Total Credits</b>
		<b>L</b>	<b>T</b>	<b>P</b>	
<b>CN301</b>	Project Phase -I	-	-	24	12
<b>Total Hours 24 Total Credits (Cumulative) 68</b>		<b>Total credits</b>			<b>12</b>

**Fourth Semester**

<b>Course No.</b>	<b>Subject</b>	<b>Schemes of Studies Periods per week</b>			<b>Total Credits</b>
		<b>L</b>	<b>T</b>	<b>P</b>	
<b>CN401</b>	Project Phase –II / Dissertation	-	-	24	12
<b>Total Hours 24 Total Credits (Cumulative) 80</b>		<b>Total credits</b>			<b>12</b>

## List of Electives

### Group A: Program Electives

<b>Subject Code</b>	<b>Name</b>
CN 501	Internet of Things (IoT)
CN 502	Cloud Computing
CN 503	Ad hoc & Sensor Networks
CN 504	Mobile Computing
CN 505	Information Theory and Coding
CN 506	Network Analysis and Design
CN 507	Organization of Web information
CN 508	Network Science and Modeling
CN 509	Storage Area Networks
CN 510	Next Generation Networks
CN 511	Software Defined Networking and Network Function Virtualization

### Group B: Department Electives (for other programs of same department only)

<b>Subject Code</b>	<b>Name</b>
CN 601	Mobile Computing
CN 602	Cloud Computing
CN 603	Internet of Things (IoT)
CN 604	Information Theory and Coding

### Group C: Institute Electives (for other departments only)

<b>Subject Code</b>	<b>Name</b>
CN 701	Internet of Things (IoT)
CN 702	Information Theory and Coding