



**MAULANA AZAD**  
**NATIONAL INSTITUTE OF TECHNOLOGY, BHOPAL - 462003**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  
**M.TECH (COMPUTER NETWORKING) PART TIME SCHEME, W.E.F JULY 2024**

**I SEMESTER**

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
PCN24 511	Computer & Network Security	3	-	-	3
PCN24 512	TCP/IP	3	-	-	3
	Department Elective - I	3	-	-	3
PCN24 513	Lab – I (Based on Core & Elective Subjects)	-	-	2	1
PCN24 514	Seminar – I	-	-	2	1
PCN24 515	Minor Project – I (Self Learning)	-	-	-	2
	Communication Skills/ Research Methodology (From NPTEL)	-	-	-	-
<b>Total Hours : 13</b>		<b>Total Semester Credits</b>			<b>13</b>
<b>Total Credits : 13</b>					

**II SEMESTER**

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
PCN24 521	Stochastic Process & Queuing Theory	3	-	-	3
PCN24 522	Graph Theory & Network Algorithms	3	-	-	3
	Department Elective - II	3	-	-	3
PCN24 523	Lab – II (Based on Core & Elective Subjects)	-	-	2	1
PCN24 524	Seminar – II	-	-	2	1
PCN24 525	Minor Project – II (Self Learning)	-	-	-	2
	Communication Skills/ Research Methodology (From NPTEL)	-	-	-	-
<b>Total Hours : 13</b>		<b>Total Semester Credits</b>			<b>13</b>
<b>Total Credits: 26</b>					



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### III SEMESTER

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
PCN24 531	Wireless Networking	3	-	-	3
	Department Elective - III	3	-	-	3
PCN24 532	Lab – III (Based on Core & Elective Subjects)	-	-	2	1
PCN24 533	Pre-Dissertation - I	-	-	12	6
Total Hours : 20		Total Semester Credits			13
Total Credits : 39					

### IV SEMESTER

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
	Department Elective - IV	3	-	-	3
	Open Elective	3	-	-	3
PCN24 541	Lab – IV (Based on Core & Elective Subjects)	-	-	2	1
PCN24 542	Pre-Dissertation - II	-	-	12	6
<b>Total Hours :</b>	<b>20</b>	<b>Total Semester Credits</b>			<b>13</b>
<b>Total Credits :</b>	<b>52</b>				

### V SEMESTER

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
PCN24 611	Dissertation Phase - I	-	-	28	14
<b>Total Hours :</b>	<b>28</b>	<b>Total</b>			<b>14</b>
<b>Total Credits :</b>	<b>66</b>	<b>Semester Credits</b>			

### VI SEMESTER

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
PCN24 621	Dissertation Phase - II	-	-	28	14
Total Hours :	28	Total Semester Credits			14
Total Credits :	80				



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DEPARTMENTAL ELECTIVIES I, II, III & IV			
PCN24 551	Machine Learning	PCN24 571	Deep Learning
PCN24 552	Advance Data Structures	PCN24 572	Parallel Algorithms
PCN24 553	Cryptography	PCN24 573	Privacy & Database Security
PCN24 554	Network Security & Design	PCN24 574	Storage Area Networks
PCN24 555	Ad hoc & Sensor Networks	PCN24 575	Software Defined Networks
PCN24 556	Quantum Computing	PCN24 576	Computer Vision
PCN24 557	Research Methodology	PCN24 577	Internet of Things (IoT)
PCN24 558	Web Search & IR	PCN24 578	Next Generation Networks
PCN24 559	Network Devices & Programming	PCN24 579	Security Risk Analysis & Modelling
PCN24 560	Information Theory & Coding	PCN24 580	Generative AI
PCN24 561	Soft Computing	PCN24 581	Reinforcement Learning
PCN24 562	Sensors, Microcontrollers and Embedded Systems		
PCN24 563	Fundamental of Robotics		

OPEN ELECTIVIES			
ARP24 581	Introduction to Urban Planning	EC24 581	Energy Resource Technologies
BSE24 581	Bioprocess Engineering	HUM24 581	Intellectual Property Rights for Engineers
BSE24 582	Biophysics Tools and Techniques	HUM24 582	Applied Psychology: Human Centered Design and Engineering
CHE24 581	Analytical Techniques	MTH24 581	Advanced Operations Research
CHE24 582	Green Technology & Processes	MTH24 582	Computing Technologies
CE24 581	Solid Waste Management	ME24 581	Value Engineering
CE24 582	Basic Concept of GIS	ME24 582	Design Thinking
CE24 583	Road Safety	ME24 583	Mechatronics and NDT in Engineering
PHY24 581	Nanotechnology and Nanoscience	MME24 581	Advanced Instrumentation Methods for Material Analysis
EE24 581	Electric Machines & Applications	MME24 582	Smart Materials and their Application
EE24 582	Control and Instrumentation	MBA24 581	Engineering Startup Management
ECE24 581	Introduction to Fuzzy Logic		
ECE24 582	Neural Networks and its Applications		



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