

**Department of Computer Science and Engineering**  
**M.Tech (Computer Science and Engineering)**  
**Course Structure and Syllabus**  
Academic Regulations: 2015-2016

<b>I Year</b>	<b>COURSE STRUCTURE</b>	<b>I Semester</b>
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S. No.	Subject Code	Subject Name	L	T	P	C	Marks	
							Internal	External
1	5P101	Advanced Computer Architecture	3	1	-	3	25	75
2	5P102	Advanced Data Structures and Algorithms	3	1	-	3	25	75
3	5P103	Advanced Databases	3	1	-	3	25	75
4	5P104	Object Oriented Programming with Java	3	1	-	3	25	75
5		PROFESSIONAL ELECTIVE I	3	1	-	3	25	75
6		PROFESSIONAL ELECTIVE II	3	1	-	3	25	75
7	5P118	Research Methodology	2	-		2	25	75
8	5P171	Advanced Data Structures and Algorithms using Java lab	-	-	4	2	25	75
9	5P172	Literature Review and Seminar-1	-	-	3	1	100	-
10	5P173	Comprehensive Viva – Voce -1	-	-	-	1	100	-
		<b>Total</b>	<b>20</b>	<b>6</b>	<b>7</b>	<b>24</b>	<b>400</b>	<b>600</b>

PROFESSIONAL ELECTIVE I		PROFESSIONAL ELECTIVE II	
Subject Code	Subject Name	Subject Code	Subject Name
5P105	Natural Language Processing	5P112	Advanced Computer Networks
5PC06	Cloud Computing	5P113	Artificial Intelligence
5P107	Advanced Network Programming	5PC14	Semantic Web and Social Networking
5P108	Advanced Operating Systems	5P115	Scripting Languages
5P109	Human Computer Interaction	5P117	Mobile Computing
5P110	Information Retrieval Systems	5RC16	Big Data Analytics
5P111	Software metrics and Quality Assurance	5P119	Software Reuse
5P140	Java Programming (EEE)	5P141	Computer Networks (EEE)

<b>I Year</b>	<b>COURSE STRUCTURE</b>	<b>II Semester</b>
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S. No.	Subject Code	Subject Name	L	T	P	C	Marks	
							Internal	External
1		<b>OPEN ELECTIVE</b>	3	1	-	3	25	75
2	5PC20	Network Security and Cryptography	3	1	-	3	25	75
3	5P221	Mobile Application Development	3	1	-	3	25	75
4	5P222	Web Technologies & Services	3	1	-	3	25	75
5	5PC23	Data warehousing and Data Mining	3	1	-	3	25	75
6		<b>PROFESSIONAL ELECTIVE III</b>	3	1	-	3	25	75
7	5P274	Web Technologies and Informatica Lab	-	-	4	2	25	75
8	5P275	Literature Review and Seminar-2	-	-	3	1	100	-
9	5P276	Project Seminar – I (Abstract)	-	-	3	2	100	-
10	5P277	Comprehensive Viva – Voce-2	-	-	-	1	100	-
		<b>Total</b>	<b>18</b>	<b>6</b>	<b>10</b>	<b>24</b>	<b>475</b>	<b>525</b>

PROFESSIONAL ELECTIVE III		OPEN ELECTIVE	
Subject Code	Subject Name	Subject Code	Subject Name
5S207	Software Architecture and Design Patterns	5ZC03	Banking Operations, Insurance and Risk Management
5PC24	Image Processing and Pattern Recognition	5QC33	Intellectual Property Rights
5P225	Machine Learning	5T217	Embedded Systems
5P226	Wireless Networks	5ZC13	Entrepreneurship and Innovation
5P227	Ad hoc and Sensor Networks	5H233	Ethics, Morals, Gender Sensitization and Yoga
5P228	Software Risk Management And Maintenance	5QC47	Bio-informatics
5S202	Software Process and Project Management		