

**Proposed 2-Year Curriculum Structure for  
**Postgraduate Degree in Engineering & Technology**  
**Branch /Program: M.Tech in Computer Science and Technology**  
**Total Credits (2 years course):68****

**Semester-wise Structure of the Curriculum**  
**[L= Lectures, P = Practical's, C = Credits]**

**Semester I [First year] Curriculum**

Sl. No.	Type of Course	Course Code	Course Title	Hours per week		Credits
				L	P	
1	Program Core		Mathematical Foundations of Computer Science	3	0	3
2	Program Core		Advanced Data Structures	3	0	3
3	Program Elective		Elective-I	3	0	3
4	Program Elective		Elective-II	3	0	3
5	Mandatory Course		Research Methodology and IPR	2	0	2
6	Audit Course		Audit Course	2	0	0
7	Laboratory Course		Advanced Data Structures Lab	0	4	2
8	Laboratory Course		Elective-I Lab	0	4	2
<b>Total Credits</b>						<b>18</b>

**Program Elective-I:**

Machine Learning  
 Cryptography and Network Security  
 Embedded Systems

**Program Elective-II:**

Artificial Intelligence  
 Big Data analytics  
 Cloud Computing  
 Advanced Data Mining  
 Advance Operating Systems

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**Semester II [First year] Curriculum**

Sl. No.	Type of Course	Course Code	Course Title	Hours per week		Credits
				L	P	C
1	Program Core		Advanced Software Engineering	3	0	3
2	Program Core		Advanced Database Management Systems	3	0	3
3	Program Elective		Elective-III	3	0	3
4	Program Elective		Elective-IV	3	0	3
5	Program Elective		Elective-V	3	0	3
6	Laboratory Course		Software Engineering Lab	0	4	2
7	Laboratory Course		Elective-III Lab	0	4	2
8	Mini Project with Seminar			2	0	2
<b>Total Credits</b>						<b>21</b>

**Elective-III:**

Wireless Sensor Networks'  
Internet of Thing  
Data Science

**Elective-IV:**

GPU Computing  
Cyber Security & Digital Forensics  
Image Processing  
Web Analytics and Development  
Distributed Operating System

**Elective-V:**

Recommender Systems  
Blockchain  
Advanced Wireless and Mobile Networks  
Semantic Web  
Soft Computing

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**Audit Course:**

1. English for Research Paper Writing
2. Disaster Management
3. Design Thinking
4. Professional Ethics & Moral Values
5. Entrepreneurship

**Semester III [Second year] Curriculum**

Sl. No.	Type of Course	Code	Course Title	Hours per week		Credits
				L	P	
1	<b>MOOCS:</b>		Titles will be decided by the department academic committee based on the courses offered by SWAYAM, UDEMY, COURSERA during the time.	3	0	3
2	Dissertation I / Industrial Project			0	20	10
<b>Total Credits</b>						<b>13</b>

**Semester IV [Second year]**

**Curriculum**

Sl. No.	Type of Course	Code	Course Title	Hours per week		Credits
				L	P	
1	Dissertation II			0	32	16
<b>Total Credits</b>						<b>16</b>