

**Department of Computer Science and Engineering**

**Course Structure of Y18 Batch**

**M.Tech (Machine Learning & Computing)**

**I year (First Semester)**

S. No.	Course Code	Course Title	Credits
1	18 CS 6133	Optimization Techniques	3
2	18 CS 6134	Applied Statistics	3
3	18 CS 6135	Data mining	4
4	18 CS 6136	Matrix Computation	4
5		Elective – 1	3
6		Elective - 2	3
7	18 IE 6149	Seminar	2

**I year (Second Semester)**

S. No.	Course Code	Course Title	Credits
1	18 CS 6237	Evolutionary and Natural Computing	4
2	18 CS 6238	Discrete Mathematics	3
3	18 CS 6239	Pattern Recognition and Machine Learning	4
4	18 CS 6240	Computer Modeling and Simulation	4
5		Elective – 3	3
6		Elective - 4	3
7	18 IE 6250	Term Paper	2

**Second Year (First & Second Semester)**

S. No.	Course Code	Course Title	Periods			Credits
			L	T	P	
1	18 IE 6050	Dissertation	0	0	72	36

**List of Electives**

S. No	Course Code	Course Title	Credits
<b>Open Elective 1</b>			
1	18 CS 61Q1	Computer Vision and Image Processing	3
2	18 CS 61Q2	Service Oriented Architecture	3
3	18 CS 61Q3	Data Analysis	3
4	18 CS 61Q4	Cloud Computing	3

<b>Open Elective 2</b>			
1	18 CS 61R1	Artificial Neural Networks	3
2	18 CS 61R2	Application Development Frameworks	3
3	18 CS 61R3	Big Data Analytics	3
4	18 CS 61R4	Cloud Security	3
<b>Open Elective 3</b>			
1	18 CS 62S1	Control Theory	3
2	18 CS 62S2	Web Semantics	3
3	18 CS 62S3	Map Reduce Design Patterns	3
4	18 CS 62S4	Data Centre Virtualization	3
<b>Open Elective 4</b>			
1	18 CS 62T1	Reinforcement Learning	3
2	18 CS 62T2	Multi Agent Systems	3
3	18 CS 62T3	Network Security	3
4	18 CS 62T4	Cloud Application Architectures	3