VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING
M.Tech (Computer Science and Engineering-Specialisation in AI & ML)
Curriculum (AY: 2019 -20)

Sl. NO	Category	Total No. of Credits
1	University Core	**27**
2	University Elective	**6**
3	Programme Core	**22**
4	Programme Elective	**15**
	Total	**70**

University Core [27 Credits]

Sl.No	Course Title	L	T	P	J	C	Pre-Req	Category
1	Master's Thesis	0	0	0	0	16	-	E
2	Mathematics for Artificial Intelligence	3	0	0	0	3	-	S
3	Science, Engineering and Technology Project - I	0	0	0	0	2	-	E
4	Science, Engineering and Technology Project - II	0	0	0	0	2	-	E
5	English / Foreign Language	0	0	0	0	2	-	H
6	Soft Skills	0	0	0	0	2	-	H
	Total	***27 Credits***						

PROGRAMME CORE (Credits to be earned: 22) – *CSE– 13 credits + AL & ML -9 credits*

Sl.No	Course Title	L	T	P	J	C	Pre-Req	Category
I - PROGRAMME CORE OF CSE (13-Credits)								
1.	Data Structures and Algorithms Analysis	3	0	2	0	4	-	E
2.	Operating Systems and Virtualization	2	0	2	0	3	-	E
3.	Database Systems: Design and Implementation	2	0	2	0	3	-	E
4.	Mathematics for Machine Learning	3	0	0	0	3	-	S
	Total	***13 Credits***						

AI & ML Core – (9 Credits)

Sl.No	Course Title	L	T	P	J	C	Pre-Req	Category
II - PROGRAMME CORE OF AI & ML (9-Credits)								
1.	Artificial Intelligence: Principles and Techniques	2	0	2	0	3	-	E
2.	Machine Learning Techniques	2	0	2	0	3	-	E
3.	Big-data Analytics	2	0	2	0	3	-	E
	Total	***9 Credits***						

PROGRAMME ELECTIVE (Credits to be earned: 15)

I - PROGRAMME ELECTIVES OF CSE (Minimum 3-Credits)

Sl.No	Course Title	L	T	P	J	C	Pre-Req	Category
1.	Advances in Cryptography and Network Security	2	0	2	0	3	-	E
2.	Web Technologies	2	0	2	0	3	-	E
3.	Data warehousing and Mining	2	0	2	0	3	-	E
4.	Computer Networks CSE	3	0	0	0	3	-	E
5.	Distributed Systems - CSE	2	0	0	0	3	-	E
6.	Cloud Computing	2	0	0	4	3	-	E
7.	Cognitive Science	3	0	0	0	3	-	E

II - PROGRAMME ELECTIVES OF AI & ML (Minimum 6-Credits)

Sl.No	Course Title	L	T	P	J	C	Pre-Req	Category
1	Soft Computing Techniques	3	0	0	0	3	-	E
2	Digital Imaging Techniques and Analysis	3	0	0	0	3	-	E
3	Knowledge Engineering and Intelligent Systems	3	0	0	0	3	-	E
4	Statistical Natural Language Processing	3	0	0	0	3	-	E
5	Deep Learning and its Applications	2	0	2	0	3	-	E
6	Stochastic Models and Applications	3	0	0	0	3	-	E
7	Intelligent Information Retrieval	3	0	0	0	3	-	E
8	Bio-Inspired Computing	3	0	0	0	3	-	E
9	Pattern Recognition	3	0	0	0	3	-	E
10	Reinforcement Learning	3	0	0	0	3	-	E
11	Machine Learning for Signal Processing	3	0	0	0	3	-	E
12	Machine Learning with Large Data sets	3	0	0	0	3	-	E

Notation: L-Lecture, T-Tutorial, P-Practical, J-Project, C-Credits