



Syllabus: B. Tech. in Computer Science and Engg. (Artificial Intelligence and Machine Learning)

Third Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Core	RCC-PCC-AIML-301	Data Structure and Algorithm	3	0	0	3
2	Professional Core	RCC-PCC-AIML-302	Computer Organization	3	0	0	3
3	Professional Core	RCC-PCC-AIML-303	Object Oriented Programming	3	0	0	3
4	Professional Core	RCC-PCC-AIML-304	Probability and Statistics	3	0	0	3
5	Humanities & Social Science	RCC-HSMC-AIML- 301	Industrial Management	3	1	0	4
6	Audit/ Mandatory	RCC-AU-AIML- 381	Soft skills and Ethics	2	0	0	0
7	Professional Core	RCC-PCC-AIML-391	Data Structure and Algorithm Lab	0	0	4	2
8	Professional Core	RCC-PCC-AIML-392	Computer Organization Lab	0	0	4	2
9	Professional Core	RCC-PCC-AIML-393	Object Oriented Programming using JAVA	0	0	4	2
Total							22
Fourth Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Core	RCC-PCC-AIML-401	Artificial Intelligence	3	0	0	3
2	Professional Core	RCC-PCC-AIML-402	Operating Systems	3	0	0	3
3	Professional Core	RCC-PCC-AIML-403	Design and Analysis of Algorithms	3	0	0	3
4	Professional Core	RCC-PCC-AIML-404	Mathematics for Machine Learning	3	0	0	3
5	Humanities & Social Science	RCC-HSMC-AIML- 401	Human Resource Development	3	1	0	4
6	Audit/ Mandatory	RCC-AU-AIML- 481	Environmental Science	2	0	0	0
7	Professional Core	RCC-PCC-AIML-491	Python for Artificial Intelligence	0	0	4	2
8	Professional Core	RCC-PCC-AIML-492	Data Science Lab using Python/R	0	0	4	2
9	Professional Core	RCC-PCC-AIML-493	Design and Analysis of Algorithms Lab	0	0	4	2
Total							22



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Fifth Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Core	RCC-PCC-AIML-501	Database Management Systems	3	0	0	3
2	Professional Core	RCC-PCC-AIML-502	Machine Learning	3	1	0	4
3	Professional Core	RCC-PCC-AIML-503	Neural Network	3	0	0	3
4	Professional Core	RCC-PCC-AIML-504	Deep Learning	3	0	0	3
5	Professional Core	RCC-PCC-AIML-505	Computer Networks	3	0	0	3
6	Engineering Science	RCC-ESC-AIML-581	Design Thinking	0	0	4	2
7	Professional Core	RCC-PCC-AIML-591	Database Management Systems Lab	0	0	4	2
8	Professional Core	RCC-PCC-AIML-592	Machine Learning Lab	0	0	4	2
Total							22
Sixth Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Core	RCC-PCC-AIML-601	Computer Vision	3	1	0	4
2	Professional Core	RCC-PCC-AIML-602	Natural language Processing	3	0	0	3
3	Professional Elective	RCC-PEC-AIML-601	A. Soft Computing B. Optimization Techniques C. Graph Theory	3	0	0	3
4	Open Elective	RCC-OEC-AIML-601	A. Internet of Things B. Project Management and Entrepreneurship C. Cloud and Edge Computing	3	0	0	3
5	Humanities & Social Science	RCC-HSMC-AIML-601	Organization Behavior	2	0	0	2
6	Project	RCC-PROJ-AIML-681	Project on Artificial Intelligence	0	0	6	3
7	Professional Core	RCC-PCC-AIML-691	Computer Vision Lab	0	0	4	2
Total							20



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Seventh Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Elective	RCC-PEC-AIML-701	A. Generative AI B. Big Data Analysis C. Cyber Security	3	0	0	3
2	Professional Elective	RCC-PEC-AIML-702	A. Quantum Computing B. Mobile Computing C. Software Engineering	3	0	0	3
3	Open Elective	RCC-OEC-AIML-701	A. Robotics B. Embedded Systems C. Distributed Systems	3	0	0	3
4	Open Elective	RCC-OEC-AIML-702	A. Game Theory B. Human Computer Interaction C. Sensor Network	3	0	0	3
5	Professional Core	RCC-PCC-AIML-781	Industrial Training & Seminar	0	0	6	3
6	Project	RCC-PROJ-AIML-781	Project – I	0	0	6	3
Total							18
Eighth Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Elective	RCC-PEC-AIML-801	A. Social Network Analysis B. E-Commerce and ERP C. Data Mining	3	0	0	3
2	Open Elective	RCC-OEC-AIML-801	A. Research Methodology B. VLSI System Design C. Nature Inspired Algorithms	3	0	0	3
3	Project	RCC-PROJ-AIML-881	Project - II	0	0	24	12
Total							18