ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES, TIRUPATI
(AUTONOMOUS)
Department of Artificial Intelligence
(AIML)

Category-I-AK23 No Change in Content

S.No	YEAR & SEMESTER	Course Code	Course Title
1	I-I	23ABS9904	Linear Algebra & Calculus
2	I-I	23AES0201	Basic Electrical & Electronics Engineering
3	I-I	23AES0301	Engineering Graphics
4	I-I	23AES0501	Introduction to Programming
5	I-I	23AES0503	IT Workshop
6	I-I	23AES0202	Electrical & Electronics Engineering Workshop
7	I-I	23AES0502	Computer Programming Lab
8	I-I	23AHM9904	NSS/NCC/Scouts & Guides/Community Service
9	I-II	23AHM9901	Communicative English
10	I-II	23ABS9901	Chemistry
11	I-II	23ABS9905	Differential Equations &Vector Calculus
12	I-II	23AES0101	Basic Civil& Mechanical Engineering
13	I-II	23APC0501	Data Structures
14	I-II	23AHM9902	Communicative English Lab
15	I-II	23ABS9906	Chemistry Lab
16	I-II	23AES0302	Engineering Workshop
17	I-II	23APC0502	Data Structures Lab
18	I-II	23AHM9903	Health and Wellness, yoga and Sports
19	II-I	23ABS9913	Discrete Mathematics & Graph Theory
20	II-I	23AHM9905	Universal Human Values
21	II-I	23APC3001	Artificial Intelligence
22	II-I	23APC0506	Object-Oriented Programming Through JAVA
23	II-I	23APC0505	Advanced Data Structures and Algorithms Analysis Lab
24	II-I	23APC0507	Object-Oriented Programming Through JAVA Lab
25	II-I	23ASC0501	Python Programming
24	II-II	23AES0305	Optimization Techniques
25	II-II	23ABS9916	Probability & Statistics
26	II-II	23APC0509	Database Management Systems Lab
27	II-II	23ASC0503	Full Stack Development-1
28	II-II	23AES0304	Design Thinking & Innovation
29	II-II	23AMC9901	Environmental Science

Category-II-Extent of 5% Change in Content

S.No	YEAR & SEM	Subject Code	Subject Title	Syllabus Content Removed	Syllabus Content Introduced
1	I-II	23ABS9903	Engineering Physics		1. Applications of dielectric materials,Applications of magnetic materials 2.Nanomaterials
2	I-II	23ABS9908	Engineering Physics Lab		Experiment included: Determination of the crystallite size using X-Ray Diffraction spectra.
3	II-I	23APC0504	Advanced Data Structures and algorithm analysis	Convex Hull, String Editing.	Finding Minimum and Maximum,Multi Stage Graphs, Review of Binary Search Trees: Binary Search Tree – Insertion, Deletion & Traversal
4	II-II	23APC3301	Machine Learning	**Linear Discriminants for Machine Learning**: Introduction to Linear Discriminants, Linear Discriminants for Classification, Perceptron Classifier, Perceptron Learning Algorithm, Support Vector Machines, Linearly Non-Separable Case, Non-linear SVM, Kernel Trick, Logistic Regression, Linear Regression, Multi-Layer Perceptrons (MLPs), Backpropagation for Training an MLP.	1. Introduction, Subset selection, principle component analysis, feature embedding, factor analysis, singular value decomposition and matrix factorization, multidimensional scaling, linear discriminant analysis, canonical correlation analysis. 2. **Semi supervised Learning:** What is Semi supervised Learning? , How does Semi supervised Learning works?, Semi supervised Learning applications, Semi supervised Learning examples. Reinforcement Learning: What is Reinforcement Learning? , How Does Reinforcement Learning Work?, Terminologies used in Reinforcement Learning, How is Reinforcement Learning different from Supervised Learning?, Approaches to Implement Reinforcement Learning Algorithms, Types of Reinforcement Learning, Models for Reinforcement Learning, Applications of reinforcement learning.
5	II-II	23APC0508	Database Management Systems	-	NoSQL: Introduction and Properties of NoSQL, Different NoSQL Systems, Columnar families, Schema-Less Databases, Materialized Views, Distribution Models, Sharding

6	II-II	23APC0503	Digital Logic & Computer Organization	Binary Codes, Von-Neumann Ar-chitecture, Basic Concepts, Buses	Character representation, Dumping, Addressing modes, subroutines, Ripple carry adder, Ripple carry multiplier and Memory hierarchy, cache memory mappings, synchronous and asynchronous buses, Pipelining: Basic Concepts, Data Hazards, Instruction Hazards, Forms of Parallel Processing
7	II-II	23APC3302	AI&ML Lab	1.Apply Random Forest algorithm for classification and regression 2.Apply Support Vector algorithm for classification	Implement a program for Bias, Variance, and Cross Validation.

BOS, CHAIRMAN

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