Fabtech Technical Campus College of Engineering Sangola

Department of Artificial Intelligence & Data Science

SY B.Tech SEM-III

Sr. No.	Subject	CO Statement	
1.	Engineering Mathematics-III (BTES301)	CO1	Understand the concept of vector calculus.
		CO2	Solve problems related to matrices and applications to Deep Learning, Signal & Image processing.
		CO3	Understand the concepts of linear algebra and apply Linear Programming, Computer Graphics and Cryptography.
		CO4	Understand the concepts of determinant and apply it in data analysis.
		CO5	Analyse Diagonalization and apply in Graphs and Networks, Matrices in Engineering, Markov Matrices, Population, and Economics.
2	An Introduction to Artificial Intelligence (BTAIC302)	CO1	Discuss Meaning, Scope and Stages of Artificial Intelligence
		CO2	Understand and Implement Problem Space and Search Strategies for Solving problems.
		CO3	Discuss the Search Techniques and Knowledge Representation
		CO4	Apply search for solving Constraint Satisfaction Problems and Game-playing.
		CO5	Discover the Application of Artificial Intelligence and Analyze Impact of AI on Society
3	Data Structure and Algorithm using Python (BTAIC303)	CO1	Write programs using basic concepts of Python Programming
		CO2	Implement algorithms for arrays, linked structures, stacks, queues, trees, and graphs
		CO3	Write programs that use arrays, linked structures, stacks, queues, trees, and graphs
		CO4	Compare and contrast the benefits of dynamic and static data structures implementation
		CO5	Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing
4	Computer Architecture & Operating Systems (BTESC304)	CO1	Understand the theory and architecture of central processing unit & Analyze some of the design issues in terms of speed, technology, cost, performance
		CO2	Use appropriate tools to design verify and test the CPU architecture & Learn the concepts of parallel processing, pipelining and inter processor communication

		CO3	Understand the architecture and functionality of central processing unit & Exemplify in a better way the I/O and memory organization, Memory management systems, Virtual Memory
		CO4	Describe and explain the fundamental components of a computer operating system
		CO5	Define, restate, discuss, and explain the policies for scheduling, deadlocks, memory management, synchronization, system calls, and file systems.
5	Digital Logic & Signal Processing (BTESC305)	CO1	Use the basic logic gates and various reduction techniques of digital logic circuit in detail
		CO2	Understand mathematical description and representation of various signals and systems.
		CO3	Develop input output relationship for linear shift invariant system and understand the convolution operator for discrete time system.
		CO4	Understand use of different transforms and analyze the discrete time signals and systems
		CO5	Understand the concept of correlation, regression and spectral density.
6	Artificial Intelligence Lab & Data Structure and Algorithm using Python Lab (BTAIL306)	CO1	Discuss Meaning, Scope and Stages of Artificial Intelligence
		CO2	Understand and Implement Problem Space and Search Strategies for Solving problems.
		CO3	Discuss the Search Techniques and Knowledge Representation
		CO4	Implement algorithms for arrays, linked structures, stacks, queues, trees, and graphs
		CO5	Write programs that use arrays, linked structures, stacks, queues, trees, and graphs
7	SEMINAR-I (BTAIS307)	CO1	Establish motivation for any topic of interest and develop a thought process for technical presentation.
		CO2	Organize a detailed literature survey and build a document with respect to technical publications.
		CO4	Analysis and comprehension of proof-of-concept and related data.
		CO5	Effective presentation and improve soft skills.