GANPAT UNIVERSITY

U.V. PATEL COLLEGE OF ENGINEERING

B. TECH SEM – VI - FIRST INTERNAL SYLLABUS (MARCH, 2024)

2CEIT602: ARTIFICIAL INTELLIGENCE

Unit 1: Introduction

- What is AI
- Applications of AI
- AI and Human Intelligence
- H/W & S/W component of AI System
- AI Techniques (Search Knowledge)
- Agent
- Environment
- Problem Solving (with GPS also)
- State Space Search Notations
- State Space Search Problem
- Local Search Process
- Formulations of different problems and puzzles
- AI classical problems
- Water Jug Problem
- Basic Search Algorithm
- Evaluating Search Strategies
- Search Tree- Terminology
- Node Data Structure
- **Other topics from Slides & Syllabus**

Unit 2: Search Algorithms

- Breadth First Search
- Depth first Search
- Difference between BFS and DFS
- Heuristics Search
- Heuristics Search Techniques (Generate & Test, Hill Climbing, Best First Search-A* Algorithm)
- Block World problem (Hill climbing)
- Game Playing- MinMax Search Procedure, Alpha-Beta Pruning
- **Other topics from Slides & Syllabus**

Unit 6: Deep Learning: Basics of Neural Network

- Biological Neural Network
- Artificial Neural Network
- McCulloch Pitts Neuron
- Boolean Functions using McCulloch Pitts (MP) neuron
- **Other topics from Slides & Syllabus**

LAB Experiment: till Practical-3

Exam Instructions:

Open Book Exam-Following Materials in hard copies only, will be allowed to carry.

- Textbooks/Reference books
- Photocopy of content from the reference books
- Lecture notes prepared by student