



GITAM INSTITUTE OF MANAGEMENT (GIM)
Gandhi Institute of Technology and Management (GITAM)
(Declared as Deemed to be University u/s 3 of UGC Act. 1956)
Visakhapatnam – 45.

Course Code: MAN 208	Course Title: Artificial Intelligence	
Semester: IV	Course Type: Theory	Credits: 3
Home Programme(s): BBA (Business Analytics)		Batch: 2020 -2023
Course Leader:		

Course description and learning outcomes

Artificial Intelligence has its foundation in Boolean algebra. With the introduction of computers, AI has gained prominence, where attempts were made to make computers think and reason like humans. It has come a long way from playing games to intelligent robots. This course aims to introduce the basic concepts of AI, Expert Systems and Machine Learning.

Learning Objectives

- To understand the strategies of state space.
- To understand AI Knowledge representation.
- To understand expert systems, machine learning and fuzzy logic.

On successful completion of this course, students will be able to:

	Learning Outcome	Assessment
CO1	Understand the concept of Propositional and Predicate Calculus	A1
CO2	Apply state space search	A3
CO3	Apply Recursion based search	A3
CO4	Perform Logic programming using Prolog	A4
CO5	Understand Expert Systems and fundamentals of Machine Learning.	A4, A2

Course outline and indicative content

Unit I (8 sessions) (CO1 & L3)

Introduction to the Propositional and Predicate Calculus, Inference Rules and use for Predicate Calculus Expression

Unit II (8 sessions) (CO2 & L3, L5)

Graph Theory, Strategies for State Space Search and Control Strategies, Heuristic Search, Monotonicity and Informedness

Unit III (8 sessions) (CO3 & L4)

Recursion based search, Pattern-Directed search, AI Challenge Knowledge Representation, Problem reduction and game playing,

Unit IV (8 sessions) (CO4 & L4)

Logic Concepts and Logic Programming, Prolog Programming, Expert System and Applications, Uncertainty measurement: Probability Theory, Fuzzy Set and Fuzzy Logic

Unit V (8 sessions) (CO5 & L2, L4)

Machine Learning Paradigms, Artificial Neural Networks, Introduction to Intelligent Agents, Natural Language Processing.

Assessment methods

Task		Task type	Task mode	Weightage (%)
A1	Mid exam	Individual		20
A2	Coursera	Individual		10
A3	Class room presentation/Seminars and Case analysis/workshop/training/Assignments/survey/Project	Individual / Group		10
A4	End-term examination	Individual		60

Mapping Cos – Blooms Levels – Assessment Tools

Knowledge dimension / Cognitive dimension	L1. Remember	L2. Understand	L3. Apply	L4. Analyze	L5. Evaluate	L6. Create
Factual Knowledge						
Conceptual Knowledge		CO5(A2)	CO1(A1) CO2(A1)	CO3(A3) CO4(A4) CO5(A4)	CO2(A4)	
Procedural Knowledge						
Meta Cognitive Knowledge						

Learning and teaching activities

Classroom Lectures, Problem solving exercises, Demonstration, Lab Sessions

Teaching and learning resources

Textbooks, Ebooks, Reference Materials, Web resources, Computer Lab, Prolog Software

CO PO Mapping

This is to map the level of relevance of the Course Outcome (CO) with Programme Outcome (PO).

0= No Relevance; 1= Low Relevance; 2= Medium Relevance; 3= High Relevance

CO PO Mapping	PO1	PO2	PO3	PO4	PO5	PO6	Sum
	CO1	0	1	1	1	1	3
CO2	0	1	1	1	1	3	8
CO3	0	1	1	1	1	3	8
CO4	0	1	2	1	1	3	9
CO5	0	1	1	1	1	3	8
Target Level Max.	0	5	6	5	5	15	41

Program Outcomes

1	Ability to understand the business problems with their knowledge in different functional areas of management.
2	Integrate with structured, semi – structured and unstructured data.
3	Utilize the tools such as Microsoft Excel, SPSS, R, Weka and Tableau to solve business analytics problems.
4	Ability to apply analytics techniques to analyze and interpret the data.
5	Incorporate the descriptive, predictive and prescriptive analytics.
6	Evaluate the necessary skills and understanding to take up advanced topics in the area of analytics and thus enhance their career prospects.