1.	Title of the course	Artificial Intelligence
2.	Course number	CS307L
3.	Structure of credits	3-0-0-3
4.	Offered to	UG
5.	New course/modification to	Modification To CS3204/12
6.	To be offered by	Department of Computer Science and Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	**Course Objective(s):** To impart theoretical understanding of the artificial intelligence formalism and problem formulation; To provide deep understanding of the state of the art practical artificial intelligence systems.	
10.	**Course Content:** Concepts in artificial intelligence (AI) including: state space representation and search, knowledge representation and reasoning; Different types of state space search algorithms including deterministic search, heuristic driven search and randomized algorithms; Concepts in formal logic and unification algorithms and working principles of Prolog; Planning and constraint satisfaction algorithms and working principles of PDDL; Game playing mechanisms including alpha beta pruning and heuristic driven; Practical large scale systems including resource descriptor framework (RDF), natural language processing (NLP), interactive systems for speech and vision data sources; and concepts in data mining and working principles of business analytics systems.	
11.	**Textbook(s):** 1. Deepak K, *A First Course in Artificial Intelligence*, McGrawHill (2015). 2. Stuart J R, *Artificial Intelligence: A Modern Approach*, Pearson (2015).	
12.	**Reference(s):** 1. Irving M C, *Symbolic Logic*, 5th Edition, Pearson (2005). 2. Ivan B, *PROLOG: Programming for Artificial Intelligence*, 3rd Edition, Pearson (2002).	