

ARTIFICIAL INTELLIGENCE [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2017 -2018) SEMESTER – V			
Subject Code	17CS562	IA Marks	40
Number of Lecture Hours/Week	3	Exam Marks	60
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course objectives: This course will enable students to			
<ul style="list-style-type: none"> • Identify the problems where AI is required and the different methods available • Compare and contrast different AI techniques available. • Define and explain learning algorithms 			
Module – 1			Teaching Hours
What is artificial intelligence?, Problems, Problem Spaces and search, Heuristic search technique TextBook1: Ch 1, 2 and 3			8 Hours
Module – 2			
Knowledge Representation Issues, Using Predicate Logic, Representing knowledge using Rules, TextBook1: Ch 4, 5 and 6.			8 Hours
Module – 3			
Symbolic Reasoning under Uncertainty, Statistical reasoning, Weak Slot and Filter Structures. TextBook1: Ch 7, 8 and 9.			8 Hours
Module – 4			
Strong slot-and-filler structures, Game Playing. TextBook1: Ch 10 and 12			8 Hours
Module – 5			
Natural Language Processing, Learning, Expert Systems. TextBook1: Ch 15,17 and 20			8 Hours
Course outcomes: The students should be able to:			
<ul style="list-style-type: none"> • Identify the AI based problems • Apply techniques to solve the AI problems • Define learning and explain various learning techniques • Discuss on expert systems 			
Question paper pattern:			
The question paper will have TEN questions. There will be TWO questions from each module. Each question will have questions covering all the topics under a module. The students will have to answer FIVE full questions, selecting ONE full question from each module.			
Text Books:			
1. E. Rich , K. Knight & S. B. Nair - Artificial Intelligence, 3/e, McGraw Hill.			
Reference Books:			
1. Artificial Intelligence: A Modern Approach, Stuart Rusell, Peter Norving, Pearson Education 2nd Edition.			

1. Dan W. Patterson, Introduction to Artificial Intelligence and Expert Systems – Prentice Hal of India.
2. G. Luger, “Artificial Intelligence: Structures and Strategies for complex problem Solving”, Fourth Edition, Pearson Education, 2002.
3. Artificial Intelligence and Expert Systems Development by D W Rolston-Mc Graw hill.
4. N.P. Padhy “Artificial Intelligence and Intelligent Systems” , Oxford University Press-2015