

<b>INTRODUCTION TO ARTIFICIAL INTELLIGENCE</b> <b>(OPEN ELECTIVE)</b> <b>(Effective from the academic year 2018 -2019)</b> <b>SEMESTER – VII</b>			
<b>Course Code</b>	<b>18CS753</b>	<b>CIE Marks</b>	40
<b>Number of Contact Hours/Week</b>	3:0:0	<b>SEE Marks</b>	60
<b>Total Number of Contact Hours</b>	40	<b>Exam Hours</b>	03
<b>CREDITS –3</b>			
<b>Course Learning Objectives:</b> This course (18CS753) will enable students to:			
<ul style="list-style-type: none"> <li>Identify the problems where AI is required and the different methods available</li> <li>Compare and contrast different AI techniques available.</li> <li>Define and explain learning algorithms</li> </ul>			
<b>Module – 1</b>			<b>Teaching Hours</b>
What is artificial intelligence?, Problems, Problem Spaces and search <b>TextBook1: Ch 1, 2</b> <b>RBT: L1, L2</b>			08
<b>Module – 2</b>			
Knowledge Representation Issues, Using Predicate Logic, Representing knowledge using Rules, <b>TextBoook1: Ch 4, 5 and 6.</b> <b>RBT: L1, L2</b>			08
<b>Module – 3</b>			
Symbolic Reasoning under Uncertainty, Statistical reasoning <b>TextBoook1: Ch 7, 8</b> <b>RBT: L1, L2</b>			08
<b>Module – 4</b>			
Game Playing, Natural Language Processing <b>TextBoook1: Ch 12 and 15</b> <b>RBT: L1, L2</b>			08
<b>Module – 5</b>			
Learning, Expert Systems. <b>TextBook1: Ch 17 and 20</b> <b>RBT: L1, L2</b>			08
<b>Course outcomes:</b> The students should be able to:			
<ul style="list-style-type: none"> <li>Identify the AI based problems</li> <li>Apply techniques to solve the AI problems</li> <li>Define learning and explain various learning techniques</li> <li>Discuss on expert systems</li> </ul>			
<b>Question paper pattern:</b>			
<ul style="list-style-type: none"> <li>The question paper will have ten questions.</li> <li>Each full Question consisting of 20 marks</li> <li>There will be 2 full questions (with a maximum of four sub questions) from each module.</li> <li>Each full question will have sub questions covering all the topics under a module.</li> <li>The students will have to answer 5 full questions, selecting one full question from each module.</li> </ul>			
<b>Text Books:</b>			

1. E. Rich , K. Knight & S. B. Nair - Artificial Intelligence, 3/e, McGraw Hill.

**Reference Books:**

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