

<b>21AIDP2</b>	<b>ARTIFICIAL INTELLIGENCE LAB</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
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<p><b><u>Course Objectives:</u></b></p> <p><b>Students undergoing this course are able to</b></p> <ul style="list-style-type: none"> <li>• To design and implement different techniques to develop simple autonomous agents that make effective decisions in fully informed, and partially observable, settings.</li> <li>• To apply appropriate algorithms for solving given AI problems.</li> <li>• To Design and implement logical reasoning agents.</li> <li>• To Design and implement agents that can reason under uncertainty.</li> <li>• To understand the Implementation of these reasoning systems using either backward or forward inference mechanisms</li> </ul>					
<b>INDIATIVE LIST OF EXPERIMENTS (Using JAVA):</b>					<b>30 Periods</b>
<ol style="list-style-type: none"> <li>1. Develop PEAS descriptions for given AI tasks</li> <li>2. Implement basic search strategies for selected AI applications</li> <li>3. Implement A* and memory bounded A* algorithms</li> <li>4. Implement genetic algorithms for AI tasks</li> <li>5. Implement simulated annealing algorithms for AI tasks</li> <li>6. Implement alpha-beta tree search</li> <li>7. Implement backtracking algorithms for CSP</li> <li>8. Implement local search algorithms for CSP</li> <li>9. Implement propositional logic inferences for AI tasks</li> <li>10. Implement resolution based first order logic inferences for AI tasks</li> <li>11. Implement classical planning algorithms</li> <li>12. Mini-Project</li> </ol>					
<p><b><u>Course Outcomes:</u></b></p> <p><b>After the completion of this course, students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Implement simple PEAS descriptions for given AI tasks</li> <li>• Develop programs to implement simulated annealing and genetic algorithms</li> <li>• Demonstrate the ability to solve problems using searching and backtracking</li> <li>• Ability to Implement simple reasoning systems using either backward or forward inference</li> </ul>					