20CS010 ARTIFICIAL INTELLIGENCE

Hours Per Week :

L	T	P	C
3	-	-	3

Total Hours :

L	T	P	WA/RA	SSH/HSH	CS	SA	S	BS
45	-	-	15	30	-	5	5	-

Course Description and Objectives:

On completion of this course the students will be able to expose themselves towards intelligence systems and knowledge based systems. It also provides knowledge of learning networks.

Course Outcomes:

Upon completion of this course, student should able to:

✓ Understand the difference between biological neuron and artificial neuron

✓ Understand the application areas of neural networks

✓ Understand building blocks of Neural Networks.

✓ Develop neural network models

✓ Design and develop applications using neural networks.

SKILLS:

✓ Learn to design and build neural network models

✓ Learn to develop learning algorithms for machine learning

UNIT -I

Artificial Intelligence: Introduction, Intelligent Agent

Problem Solving: Solving problems by searching, Beyond classical search, Adversarial Search, Constraint satisfaction problem.

UNIT - II

Knowledge Representation: Logical agents, First-Order Logic, inference in First-Order Logic, Classical Planning, Planning, and acting in real world.

UNIT - III

Uncertain Knowledge and Reasoning: Quantifying Uncertainty, making simple decisions, making complex decisions.

UNIT – IV

Learning: Learning from Examples, Knowledge in learning, Reinforcement learning

UNIT – V

Communicating, perceiving, and acting: NLP, NLP for communication, Robotics

REFERENCE BOOKS:

1.   "Artificial Intelligence A Modern Approach Third Edition" Stuart Russell and Peter Norvig. 3rd Edition