

ST. ANN'S COLLEGE OF ENGINEERING & TECHNOLOGY, CHIRALA
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
LESSON PLAN

Subject:Artificial Intelligence

Academic Year: 2019 – 2020

Name: P.V.Naga Srinivas

Year &Sem/Section: III-IIsem `A,B &C

Unit No.	Topics Planned to be Covered	No. of Periods Required
I	Introduction to artificial intelligence: Introduction ,history, intelligent systems, foundations of AI, applications, tic-tac-tie game playing, development of ai languages, current trends in AI	8
II	Problem solving: state-space search and control strategies : Introduction, general problem solving, characteristics of problem, exhaustive searches, heuristic search techniques, iterativedeepening a*, constraint satisfaction Problem reduction and game playing: Introduction, problem reduction, game playing, alphabeta pruning, two-player perfect information games	9
III	Logic concepts: Introduction, propositional calculus, proportional logic, natural deduction system, axiomatic system, semantic tableau system in proportional logic, resolution refutation in proportional logic, predicate logic	10
IV	Knowledge representation: Introduction, approaches to knowledge representation, knowledge representation using semantic network, extended semantic networks for KR, knowledge representation using frames advanced knowledge representation techniques: Introduction, conceptual dependency theory, script structure, cyc theory, case grammars, semantic web	10
V	Expert system and applications: Introduction phases in building expert systems, expert system versus traditional systems, rule-based expert systems blackboard systems truth maintenance systems, application of expert systems, list of shells and tools	9
VI	Uncertainty measure: probability theory: Introduction, probability theory, Bayesian belief networks, certainty factor theory, dempster-shafer theory Fuzzy sets and fuzzy logic: Introduction, fuzzy sets, fuzzy set operations, types of membership functions, multi valued logic, fuzzy logic, linguistic variables and hedges, fuzzy propositions, inference rules for fuzzy propositions, fuzzy systems.	11
	Total Number of Periods Required	57

TEXT BOOKS:

1. Artificial Intelligence- Saroj Kaushik, CENGAGE Learning,
2. Artificial intelligence, A modern Approach , 2nded, Stuart Russel, Peter Norvig, PEA
3. Artificial Intelligence- Rich, Kevin Knight, Shiv Shankar B Nair, 3rded, TMH
4. Introduction to Artificial Intelligence, Patterson, PHI

REFERNCE BOOKS:

1. Atificial intelligence, structures and Strategies for Complex problem solving, -George F Lugar, 5thed, PEA
2. Introduction to Artificial Intelligence, Ertel, Wolf Gang, Springer

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