TECNIA INSTITUTE OF ADVANCED STUDIES

Grade 'A' Institute

Department of Information, Communication & Technology

Master Of Computer Applications (MCA)

Scheme and Syllabus (w.e.f. Academic Session 2020-21 onwards)

Course Code: MCA-237 **L T C**
Course Name: Soft Computing **3 1 4**

LEARNING OBJECTIVES

In this course, the learners will be able to develop expertise related to the following: -

1. Fuzzy logic and its applications.
2. Artificial neural networks and its applications.
3. Applications of Soft computing to solve problems in varieties of application domains

PRE-REQUISITES

1. A strong mathematical background.
2. Proficiency with algorithms.
3. Programming skills in C, C++, Java, MATLAB, etc.
4. Critical thinking and problem-solving skills

COURSE OUTCOMES (COs)

After completion of this course, the learners will be able to:

CO#	Detailed Statement of the CO	BT Level	Mapping to PO #
CO1	Demonstrate the techniques of soft computing and their role in problem solving	BTL2	PO1, PO2, PO3
CO2	Apply various soft computing techniques in order to solve problems effectively and efficiently	BTL3	PO1, PO2, PO3, PO4
CO3	Construct neural networks that can learn from available examples and generalize to form appropriate rules for inference systems.	BTL3	PO1, PO2, PO3, PO4, PO5, PO6, PO10
CO4	Analyze Fuzzy logic and neural networks primitives like fuzzy sets, fuzzy logic and heuristics based on human experience.	BTL4	PO1, PO2, PO3, PO4, PO5, PO6, PO10
CO5	Assess the current research problems and research methods in Soft Computing Techniques.	BTL5	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11