Course Outline

Title: ARTIFICIAL NEURAL NETWORKS

Code: ITECH7608

Formerly: CP913

Faculty / Portfolio: Faculty of Science and Technology

Level: Advanced

Pre-requisites: Nil

Co-requisites: Nil

Exclusions: Nil

Credit Points: 15

ASCED Code: 020113

Objectives:

After successfully completing this course, students should be able to:

Content:

Topics may include:

- An examination of the basis of ANN in the structure and functions of the human brain.
- Design and implementation of ANN architecture.
- Design and implementation of ANN first and second order learning algorithms.
- Classification, clustering and function approximation tasks for ANN.
- Offline non-cursive handwriting digit / character recognition using ANN.

Assessment:

The lab work marks will be divided into 3-4 subtasks. The project will be based on designing and implementing an ANN model for pattern recognition task.

Students will be engaged in a combination of lectures and tutorials. Lectures will develop and deliver the sets of principles and concepts that are applied in ANN. Student's active participation, in both lectures and tutorials, will be required. Hands-on projects will be included in the tutorials so that students will have a feel of ANN and its applications.

Assessment Task	Assessment Type	Weighting
Practical demonstration of programming and modelling	Lab work & Project	40 - 50%
Participation in lectures, tutorials and lab classes	Examination	50 - 60%

Adopted Reference Style:

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APA

Presentation of Academic Work: