Resit Coursework Assignment

This document explains the requirements of the assessed practical work for the UFME7K-15-M Intelligent and Adaptive Systems Resit module.

This assignment is to be submitted as a report, details of which are given below. This report is worth 50% of the marks for the module. Please note that the report is an individual assessment.

The deadline for submission of your report is 17th July 2018.

From material covered during lectures, lab exercises and examples, and your own further reading you are to complete the following task:

Derive an Adaptive Neuro-Fuzzy Inference System (ANFIS) solution for the inverse kinematics of a 3R planar manipulator using the MATLAB fuzzy logic toolbox. You should aim to achieve low error and good generalisation over the reachable workspace using appropriate validation.

Reporting

You have to write a report, using not more than 4000 words to describe your investigations and results. You need to:

1) Demonstrate that you understand the theory behind the approaches you use to solve a problem.

2) Explain the methods used and describe the steps taken to validate your results.

3) Include critical assessment and analysis of the relative merits of the approaches you have used.

4) Include Discussion of Results and Conclusions.

5) Provide references using the Harvard system

http://www1.uwe.ac.uk/students/studysupport/studyskills/referencing/uweharvard.aspx

6) Provide any code you have written in an appendix. (This will not be included in the word count)

Your report will be marked based on analysis of your results, sufficient evidence and references that support your claims and clarity and relevance of your discussion.

Assessment weighting:

Explanation of methods used	20%
Validation testing	10%
Results obtained through calculations, coding and experiments	25%
Critical Assessment and Analysis of results	25%
Conclusions	10%
References, correctly cited	10%