

# IMAT5119: Matlab Laboratories 6-8 <sup>1</sup>

## Learning Outcomes

In these labs you will enhance your understanding of the Fuzzy Logic Toolbox.

## Tasks for Labs 6–8

### Guide to the Fuzzy Logic Toolbox

This link takes you to the Fuzzy Logic Toolbox User Guide:

<https://uk.mathworks.com/help/fuzzy/>

### Object Based FIS Creation

Via the command line, Matlab has an alternative object based approach to defining an FIS:

<https://uk.mathworks.com/help/fuzzy/working-from-the-command-line.html>

### Useful Functions

There are a number of functions available for showing the rules, plotting the whole system, showing an FIS, evaluating an FIS and viewing the surface of an FIS. Find these commands using the help system and apply them to an FIS you have previously worked on. Some examples are:

- ruleview;
- surfview;
- gensurf.

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<sup>1</sup>Sarah Greenfield (acknowledging Bob John, Paco Chiclana and Jenny Carter), 9/11/20