

## SC42050 Literature Assignment

# Adaptive neural flight control system for unmanned aircrafts

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### Description

This assignment concerns the neural network applications for control of unmanned aircraft (Suresh and Kannan, 2008).

### Questions

1. Give a concise description of the main idea of the paper. What problems are addressed by the paper?
2. What the paper proposed to solve the problems you find in the Question 1? Why do the authors of the paper think that the neural networks can be used? Do a literature study to find other approaches that have been proposed to solve the same problems.
3. Explain the scheme of the neural adaptive control used in the paper and other schemes you can found in the textbooks or papers. What is the main function of the neural networks in the schemes? Can you use, let's say, fuzzy logic to achieve the same functionality in the schemes? Elaborate you answer.
4. The paper gives the advantages the proposed approach. Find the disadvantages of the approach.

### References

Suresh, S. and Kannan, N. (2008). Direct adaptive neural flight control system for an unstable unmanned aircraft. *Applied Soft Computing*, 8(2):937–948.