

# **UNIVERSITY OF JAFFNA**

FACULTY OF ENGINEERING

## **EC9170 - Deep Learning for Electrical & Computer Engineers**

### **ASSIGNMENT 03**

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1. What are Recurrent Neural Networks (RNN) and how it differs from feedforward neural network?
2. Describe how the hidden state in an RNN operates?
3. How does backpropagation through time (BPTT) works in RNN?
4. Explain the vanishing gradient problem in RNNs and why it matters?
5. What is exploding gradient problem in RNNs and how can it affect RNN performance?
6. What is LSTM and how it addresses the vanishing problem?
7. Explain the difference between LSTM and GRU networks.
8. Explain how would you use an RNN for generating text sequences.