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Question Paper Code: 39032

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Elective

Electrical and Electronics Engineering

01UEE910 - FUZZY LOGIC AND NEURAL NETWORKS

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define boundaries of a membership function.
2. What you mean by universal set?
3. Explain the defuzzification method of center of sums.
4. What is the purpose of knowledge base module?
5. Define Artificial Neural Network (ANN).
6. Define threshold.
7. What is the main purpose of Hop field network?
8. What is Recurrent Network?
9. What are the basic elements of a fuzzy logic control system?
10. What are fuzzy relations?

PART - B (5 x 16 = 80 Marks)

11. (a) Explain different types membership functions used in fuzzification process. (16)
- Or
- (b) Describe the properties of crisp sets in fuzzy logic. (16)
12. (a) Explain different methods of fuzzification and defuzzification with example. (16)
- Or
- (b) Illustrate the fuzzy rule based system with suitable example. (16)
13. (a) Explain single and multilayer feed forward network with example. (16)
- Or
- (b) Explain the Back propagation learning with its computations. (16)
14. (a) Explain the Hopfield network and draw its architectures. (16)
- Or
- (b) Explain the recurrent networks in ANN. (16)
15. (a) Illustrate the automatic generation control using fuzzy logic controllers. (16)
- Or
- (b) Explain how to implement the fuzzy controller in washing machine. And also write the algorithm. (16)
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