



KRISHNASAMY COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University

Anand Nagar, Nellikuppam Main Road, Kumarapuram, Cuddalore- 607 109.

Phone no.(04142) 285 601- 604

www.kcet.in

info@kcet.in

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

20.11.2018

(Academic Year 2018-2019)

CIRCULAR

It is planned to conduct a value added course for III & IV year Electrical and Electronics Engineering students on the subject given below. Each module is scheduled from 10.12.2018 to 14.12.2018 The course plan, test procedure, attendance are followed as per Anna University regulation respectively. It is highly advised that the students should attend all the sessions and get benefited of the course.

The syllabus for the same has been formulated and will be circulated to students. The eminent staff from our department is invited to give lectures on topics from syllabus.

| S.No | Year | Code/Name of the subject | Duration in Hours | Subject Incharge |
|------|------|---|-------------------|------------------------------|
| 1 | IV | VAC1801/Fundamentals of Nano-Science | 30 | Er.R.Srinivasan ASP/EEE |
| 2 | III | VAC1802/AI applications to Power Systems. | 30 | Er.N.Purushothaman AP/EEE |


HOD 20/11/18

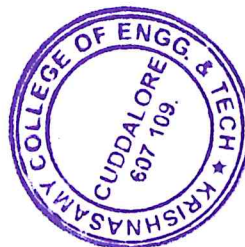

20/11/18
VICE PRINCIPAL


PRINCIPAL

Copy to :

Class Room

Class In charge





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SYLLABUS

Subject Code:VAC1802

Subject Name: AI applications to Power Systems.

Duration: 30 Hours

Objectives:

The main objective is to learn about various Artificial neural networks, Genetic Algorithms and fuzzy logic systems. And to apply the Artificial Intelligent techniques and their applications in power systems.

Module 1:

Approaches to intelligent control – Architecture for intelligent control – rule-based systems – the AI approach – Knowledge representation.

Module 2:

Concept of Artificial Neural Networks and its basic mathematical model - simple perceptron – Feed-forward-Multilayer Perceptron – Learning and Training the neural network – Hopfield network.

Module 3:

Basic concept of Genetic algorithm and detailed algorithmic steps – adjustment of free parameters – Solution of typical control problems using genetic algorithm.

Module 4:

Introduction to crisp sets and fuzzy sets – basic fuzzy set operation and approximate reasoning – Introduction to fuzzy logic modeling and control – Fuzzification.

Module 5:

GA application to power system optimisation problems, Neural Network Application to Load Forecasting, Contingency Analysis.





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COURSE OUTCOMES:

- Familiarity with working principles, tools and techniques in the field of AI applications
- Understanding of the strengths, limitations and potential uses of AI applications

TEXT BOOKS:

1. S. Russel and P. Norvig, "Artificial Intelligence – A Modern Approach", Second Edition, Pearson Education
2. David Poole, Alan Mackworth, Randy Goebel, "Computational Intelligence : a logical approach", Oxford University Press.




HOD/EEE 19/11/2018