



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

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

30.10.2019

(Academic Year 2019-2020)

CIRCULAR

It is planned to conduct a value added course for IV year Electrical and Electronics Engineering students on the subject given below. Each module is scheduled from 13.12.2019 to 18.12.2019. 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	VAC1901/Power Converters	30	E r.D.Periyaazhagar AP/EEE


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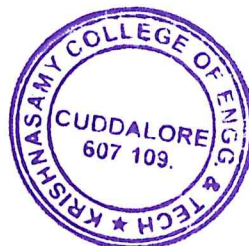

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SYLLABUS

Subject Code: VAC1901

Subject Name: Power Converters

Duration : 30 Hours

Objectives:

The main objective is to learn about modern power converters and their applications in electrical power systems. The course also applies knowledge about the matrix converters and soft switched converters.

Module 1:

DC Power supplies and Classification; Switched mode dc power supplies - with and without Isolation, single and multiple outputs; closed loop control and regulation.

Module 2:

Switched mode AC-DC converters- synchronous rectification - single and three phase topologies - switching techniques - high input power factor.

Module 3:

Multi-level Inversion - concept, classification of multilevel inverters, Principle of operation, main features and analysis of Diode clamped, Flying capacitor and cascaded multilevel inverters.

Module 4:

Matrix converters. Basic topology of matrix converter; Commutation – current path; Modulation techniques - scalar modulation, indirect modulation.

Module 5:

Performance comparison hard switched and soft switched converters. AC-DC converter, DC-DC converter, DC-AC converter.





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COURSE OUTCOMES:

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

TEXT BOOKS:

1. Power Electronics Handbook, M.H.Rashid, Academic press, New york, 2000.
2. Advanced DC/DC Converters, Fang Lin Luo and Fang Lin Luo, CRC Press, NewYork, 2004.



HOD/EEE

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