

KRISHNASAMY

College of

ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University

Anand Nagar, Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109, Tamil Nadu.
☎ (04142) 285 601 - 604 🌐 www.kcet.in ✉ info@kcet.in

DEPARTMENT OF ECE

05.07.2023

CIRCULAR

Ref.: KCET/ECE/VAC/CIRCULAR/2022-23/01

The following Value Added Course will be conducted during the academic year 2022-2023. The course will be conducted from 17.07.2023 to 21.07.2023. Students are instructed to register their names in the course allotted to them.

Note: Students are instructed to attend the program without fail.

S.No.	Course Code	Name of the Course	Year	No. of Period	Course Coordinator
1	EC - VAC2203	MEDICAL ELECTRONICS	III	30	Er.S.Nirmala,AP-ECE
2	EC - VAC2204	ADVANCED ELECTRONICS IN MEDICAL	II	30	Er.V.Uvaranjani,AP-ECE

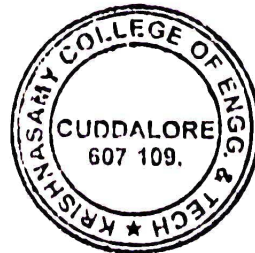
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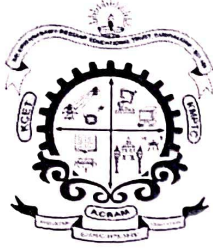
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Department File





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Subject Code/ Subject Name: EV - VAC2204-ADVANCED ELECTRONICS IN MEDICAL

Duration: 30 Hours

OBJECTIVES:

- To gain knowledge about the various physiological parameters both electrical and non electrical and the methods of recording and also the method of transmitting these parameters.
- To study about the various assist devices used in the hospitals.
- To gain knowledge about equipment used for physical medicine and the various recently developed diagnostic and therapeutic techniques.

MODULE I 6

The origin of Bio-potentials; biopotential electrodes, biological amplifiers, ECG, EEG, EMG, PCG, lead systems and recording methods, typical waveforms and signal characteristics.

MODULE II 6

pH, PO₂, PCO₂, colorimeter, Auto analyzer, Blood flow meter, cardiac output, respiratory measurement, Blood pressure, temperature, pulse, Blood Cell Counters.

MODULE III 6

Cardiac pacemakers, DC Defibrillator, Dialyser, Heart lung machine

MODULE IV 6

Diathermies- Shortwave, ultrasonic and microwave type and their applications, Surgical Diathermy Telemetry principles, frequency selection, biotelemetry, radiopill, electrical safety.

MODULE V 6

Thermograph, endoscopy unit, Laser in medicine, cryogenic application, Introduction to telemedicine.

TOTAL: 30

COURSE OUTCOMES:

Upon completion of the course, students will be able to
Discuss the application of electronics in diagnostic and therapeutic area.
Measure biochemical and various physiological information.
Describe the working of units which will help to restore normal functioning.

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28/6/22
HOD/ECE

