

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 SCIENCE AND HUMANITIES

22.03.2024

CIRCULAR

Ref.: KCET/S & H/VAC/CIRCULAR/2023-24/01.

The following Value Added Course will be conducted during the academic year 2023-2024. The course will be conducted from 02.04.2024 to 06.04.2024. 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	S&H - VAC2301	TESTING OF ELECTRONICS DEVICES	I	30	Mrs.M.UMALAKSHMI AP/S&H

B. Anirudh
22/3/24
HOD/S&H

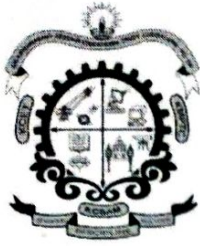
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Department File





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SYLLABUS

Subject Code/ Subject Name: S&H-VAC2302-TESTING OF ELECTRONIC DEVICES

Duration: 30 Hours

Course Description

This course covers the principles and techniques for testing electronic devices, focusing on both hardware and software testing methodologies. Students will learn about various testing tools, standards, and best practices to ensure quality and reliability in electronic systems.

Course Objectives

By the end of this course, students will be able to:

1. Understand the fundamentals of testing electronic devices.
2. Apply various testing techniques and tools to assess device performance.
3. Analyze test results and identify potential issues in electronic circuits.
4. Design and implement test plans for different types of electronic devices.
5. Understand industry standards and regulations related to electronic device testing.

COURSE CONTENT

Module I Introduction to Electronic Device Testing

- Overview of testing principles
- Importance of testing in electronics
- Types of electronic devices

Module II Testing Methodologies

- Functional vs. Non-functional testing



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- Black-box vs. White-box testing
 - Reliability testing

Module III Testing Tools and Equipment

- Multimeters, oscilloscopes, logic analyzers
- Automated test equipment (ATE)
- Software tools for testing

Module IV Test Planning and Design

- Developing a test plan
- Test case design techniques
- Risk assessment in testing

Module V Hardware Testing Techniques

- In-circuit testing (ICT)
- Boundary scan testing
- Burn-in and stress testing

TOTAL: 30 PERIODS

COURSE OUTCOMES:

At the end of the course the student will be able to

1. Analyze test results and identify potential issues in electronic circuits.
2. Design and implement test plans for different types of electronic devices.

B. Arun
HOD/S&H

