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# A Report on Hands on Training "OrCAD Fundamentals for Beginners" Organised by Department of Electrical and Electronics Engineering in Association with IETE – ISF - MITS on 19.09.2025.



Report Submitted by: Mr N Sridhar, Assistant Professor, Department of EEE. Resource Person Details: Prof. K. Sathishkumar, Professor, VIT Vellore.

Venue: MITS – Saraswathi Block - SB – Seminar Hall A Participants: 50 (05 Faculty, 45 UG II Year EEE Students)

Mode of Conduct: Online Timings: 10.00am to 12.00Noon Report Received on 20.09.2025.

The program commenced with a warm welcome address by the Event Coordinator, Mr. N. Sridhar, Assistant Professor, Department of EEE. In his speech, he highlighted the importance of the training program and its relevance to the students' academic and professional growth. He further introduced the initiative, stating that the Department of EEE, in association with the IETE – The Institution of Electronics and Telecommunication Engineers – ISF Forum, organized a Hands-on Training on "OrCAD Fundamentals for Beginners". The event was held on September 19, 2025, from 10:00 a.m. to 12:00 p.m. at Saraswathi Block – Seminar Hall A.

The program began with a **welcome address by Dr. P. Ramanathan, Principal, MITS – Madanapalle**, who appreciated the initiative and emphasized the value of such training programs in enhancing students' practical learning. This was followed by **Dr. A. V. Pavan Kumar, Head of the Department of EEE**, who extended a cordial welcome to the Chief Guest and highlighted the significance of the hands-on training. In his remarks, he provided an overview of the session's importance in bridging theoretical knowledge with practical applications, thereby motivating students to actively participate and make the most of the opportunity.

Following the welcome addresses, Dr. Nehru K, Professor, Department of ECE, and Event Co-Coordinator, MITS, introduced the resource person to the audience. He delivered a brief profile of Dr. K. Sathishkumar, who serves as Professor, Department of EEE, School of Electrical Engineering (SELECT), VIT University, Vellore. Dr. Sathishkumar is a distinguished academician and an inspiring speaker, widely recognized for his expertise in both personal and professional development. With extensive experience in mentoring and guiding individuals to unlock their potential, he brings profound knowledge of OrCAD Fundamentals and its applications in electronic circuit design and simulation. The session was then formally handed over to Dr. K. Sathishkumar, who began the hands-on training.



Followed by Dr. K. Sathishkumar Resource Person expressing his gratitude to the MITS Management, Principal, Vice Principal Administration & HOD/EEE, Event Coordinator, Event Co-coordinator, IETE coordinator and participants for the opportunity to share his knowledge on the OrCAD Fundamentals.

### **Expert Talk:**

The session, titled "OrCAD Fundamentals for Beginners" was delivered as a hands-on training program by the Chief Guest, **Dr. K. Sathish Kumar**. The training was designed to introduce students to **OrCAD**, a globally recognized and widely used software for electronic circuit design and simulation. Dr. Sathish Kumar began with an overview of the importance of simulation tools in the field of Electrical and Electronics Engineering, highlighting how OrCAD plays a vital role in bridging theoretical knowledge with practical applications.



He then guided the students through the fundamental concepts of OrCAD, covering the basics of circuit design, schematic entry, and simulation procedures. Step-by-step demonstrations were provided to help students understand how to create, analyze, and verify electronic circuits within the software environment. The interactive approach ensured that participants were actively engaged, gaining both theoretical insights and practical exposure to the tool.

## The resource person outlined and discussed the following key points during the session:

- Importance of simulation tools in modern Electrical and Electronics Engineering.
- Introduction to OrCAD software and its applications in circuit design and analysis.
- Step-by-step procedure for schematic entry and circuit creation.
- Fundamentals of circuit simulation and verification using OrCAD.
- Demonstration of basic electronic circuits and their simulation outputs.
- Best practices for error checking, debugging, and optimization of designs.
- Practical insights into how OrCAD is applied in academic projects, research, and industry applications.

This hands-on training not only familiarized the students with the essential features of OrCAD but also enhanced their confidence in applying the software for academic projects, research, and real-world engineering applications.

# **Outcome of the Hands-on training:**

- 1. The hands-on training on "OrCAD Fundamentals for Beginners" provided significant learning value to the participants.
- 2. Students gained a **clear understanding of the basics of OrCAD software**, including schematic design, simulation, and analysis.

- 3. They were able to **practically apply the theoretical concepts** learned in their coursework through real-time circuit design and testing in the software.
- 4. The session improved their **technical competency and confidence** in using simulation tools, preparing them for project work, internships, and research activities.
- 5. Participants developed **problem-solving and design skills**, enabling them to create and validate simple electronic circuits independently.
- 6. The exposure to an **industry-standard tool** enhanced their readiness for professional roles in electronics design, testing, and automation fields.
- 7. Overall, the training bridged the gap between classroom knowledge and practical applications, motivating students to further explore **simulation-driven learning** in electrical and electronics engineering.

Finally, the session concluded with an interactive feedback and doubt-clearing discussion, where students actively engaged with the resource person to clarify their queries. This was followed by the Vote of Thanks, delivered by the Event Coordinator, Mr. N. Sridhar, Assistant Professor, Department of EEE, who expressed gratitude to the Chief Guest, participants, and organizing team for making the program a success. With this, the hands-on training program came to a successful conclusion.