

**A Report on One-day Technical Training for Lab Assistants on  
“Microwave Instrumentation”**

**Organized by**

**Department of Electronics & Communication Engineering**

**Date: 09.11.2024**



**Report Submitted by: Mr. M. Veeraiah, Assistant Professor, Department of ECE**

**Resource Person Details: Mr. J. Ravi Kumar, Senior Technical Associate in TECHINILAB INSTRUMENT, Bangalore.**

**Mode of Conduct: Offline**

**Time: 10.00 AM to 12.00 PM**

**Venue: Room Number EB 203**

**Report Received on 03.12.2024.**

The Technical Training began at 10:00 AM with a welcome address delivered by Mr. M. Veeraiah, Assistant Professor in the Department of ECE, MIT S, Madanapalle. The esteemed Technical members included Dr. S. Rajasekaran, Head of the Department of ECE, MIT S, Mr. J. Ravi Kumar, Senior Technical Associate in TECHINILAB INSTRUMENT, Bangalore.

The Department of Electronics and Communication Engineering organized a technical training session exclusively for lab assistants on Microwave Instruments on 09-11-2024. The session, conducted by experts TECHINILAB INSTRUMENT, Bangalore, saw the participation of 06 lab assistants. The program focused on enhancing their technical proficiency in handling and maintaining microwave lab instruments and ensuring effective support during lab sessions.

**Objectives of the Training:** The training was designed to:

- Provide hands-on knowledge of operating **Microwave lab instruments**.
- Demonstrate the setup and functioning of **Antenna measurement systems**.
- Enhance skills for proper maintenance and calibration of lab equipment

**Training Highlights:**

The session was structured into practical demonstrations and operational guidance, covering:

**1. Introduction to Microwave Lab Instruments:**

- Overview of different microwave equipment and their applications in the laboratory.
- Guidelines on safe handling and storage of instruments.

**2. Antenna Testing and Measurement:**

- Practical demonstration of setting up antenna testing systems.
- Explanation of key parameters such as radiation pattern and gain.

### 3. Instrument Maintenance:

- Best practices for equipment maintenance and calibration schedules.
- Tips for diagnosing and addressing common hardware issues.

### Program Outcomes

The training program achieved the following outcomes for the lab assistants:

- **Enhanced Instrument Handling Skills:** Participants gained practical expertise in operating microwave lab instruments efficiently and safely.
- **Improved Lab Session Support:** Lab assistants are now better equipped to assist faculty and students during experiments, ensuring smooth lab operations.
- **Maintenance and Troubleshooting:** The training provided essential knowledge for the regular upkeep and troubleshooting of microwave lab instruments.
- **Confidence in Equipment Operation:** Hands-on experience increased the confidence of lab assistants in managing complex instruments like microwave bench.

### Participant Feedback:

Lab assistants expressed satisfaction with the training, highlighting the clarity and practicality of the demonstrations. Many felt the session improved their understanding of the equipment and provided them with valuable tips for daily lab management.

### Conclusion:

The training session concluded at 12:00 PM with a vote of thanks delivered by Mr. M. Veeraiah, Assistant Professor. It successfully enhanced the technical capabilities of the lab assistants, ensuring they are well-prepared to handle microwave lab instruments and contribute effectively to the department's academic activities.