



Skill Development & Training Program On "Calibration and Testing of Medical Devices"

Organized By

**National Hub for Healthcare Instrumentation and Development,
CEG Campus, Anna University, Chennai - 25.**

About the Calibration Facility:

Centre for Calibration and Testing of Medical Equipment (CCTME) is a sophisticated laboratory of NHHID equipped with state-of-the-art calibrating equipment, IEC standards, operating procedures and trained professionals guided by faculty experts to perform calibration of medical devices and to ensure reliable performance for quality healthcare. These kind of trainings will boost the student's knowledge, shapes the career path and significantly improves the understanding of the basics in medical devices which is essential prior to being a part of Healthcare Organization.

Course Coverage:

1. The Basic principles of testing/calibration concepts
2. Uncertainty of Measurement and Decision Rule
3. Calibration Laboratory Standards and Accreditation
4. Calibration of Medical Devices.

Who Can Attend:

Bachelor's / Master's degree in Biomedical engineering or medical electronics and relevant streams in Biomedical Science.

Mode of Study:

- ❖ Presentation, Exercises, Sessions of Interaction (Theory & Practical Sessions)
- ❖ No. of Participants Limited to 20
- ❖ Course Duration: 2 days
- ❖ Certificate: Certificates will be provided on successful completion of training

Fee Details (exclusive of GST):

- ❖ Student - Rs. 2,000/-
- ❖ Faculty - Rs. 4,000/-

Registration Details:

- ❖ Interested participants have to register for the course by using the application form available in the website
- ❖ The Minimum and Maximum Number of seats is restricted to 20
- ❖ Refreshment will be provided
- ❖ No accommodation

Intimation to candidates:

- ❖ The training date and expert details will be updated through email/Phone.
- ❖ DD must be taken only after receiving confirmation mail.

Fee Payment Details:

- ❖ The Fee Payment will be in the form of DD only
- ❖ The DD Details will be mailed.

FOR FURTHER CLARIFICATIONS:

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APPLICATION FORM

DETAILED COURSE CONTENT

1. The Basic principles of testing/calibration:

Introduction Overview of Testing / Calibration – about In-house and onsite calibration – Traceability – Calibration Methods.

2. Uncertainty of Measurement and Decision Rule:

Introduction of Uncertainty – TYPE A & TYPE B Uncertainty – Evaluation of Combined Uncertainty – Expanded Uncertainty - Statement of Uncertainty in measurement – Decision rule on Statement of Conformity.

3. Calibration Laboratory Standards and Accreditation:

Introduction to IEC 17025:2017 – Documentation Requirements – Personnel Requirements – Structural Requirements – Equipment Requirement – Quality Management Systems – Introduction to International and National Accreditation Bodies.

4. Calibration of Medical Devices:

Reference Standards used – Parameter tested – Relevant IEC/ISO standard – Calibration Procedure – Calibration Intervals.

The following analyzers, medical equipment will be introduced to the participants as they study the Calibration and Testing of medical devices.

- Electrical Safety Analyzer – Fluke - ESA620
- Vital Signs Simulator – Fluke - ProSim 8
- Gas Flow Analyzer- TSI Certifier™ Gas Flow Analyzers
- Defibrillator Analyzer – Fluke – Impulse - 7000DP
- Patient Monitor – Philips Suresigns VM8
- Defibrillator- Nihon Kohden – CardioLife