



## Faculty Development Program



**VIT**<sup>®</sup>  
Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

**Title :** Recent Innovations in Hydrogen Technology

**Date :** 13-Feb-2024 - 13-Feb-2024

**Time :** 10:00 - 17:30

**Venue :** DR. AMBEDKAR AUDITORIUM

### Discussion Points

- Introduction to hydrogen energy and Hydrogen technologies
- Hydrogen production and conversion
- Environmentally sustainable hydrogen
- Storage & carbon capture
- Hydrogen as a future fuel



### **Resource Person 1 - Details**

**Name :** Dr Vinod Kumar Sharma

**Designation :** Assistant Professor, Department of Mechanical Engineering

**University/ Company :** NIT Calicut, Calicut

**Address :** India, 673601.

### **Resource Person's Profile :**

#### **1. Profile of Dr Vinod Kumar Sharma**

Dr. Vinod Kumar Sharma is working as an Assistant Professor in the Department of Mechanical Engineering at National Institute of Technology Calicut, India. His areas of research are Hydrogen Energy, CO<sub>2</sub> Capture and Sequestration, Renewable Energy, Heat Transfer, Refrigeration and Air-Conditioning, and Computational Fluid Dynamics. He has completed his PhD from the Indian Institute of Technology Indore, India and MTech from Visvesaraya National Institute of Technology Nagpur, India. He has more

The ongoing global pursuit of sustainable and clean energy solutions has intensified interest in hydrogen technologies as a promising avenue for decarbonizing various sectors. This abstract provides a concise overview of recent innovations in hydrogen technologies, encompassing advancements in production, storage, and utilization. The exploration of novel catalysts, renewable energy sources, and efficient electrolysis methods has significantly contributed to enhancing the competitiveness of hydrogen as a clean energy carrier. Moreover, breakthroughs in hydrogen storage technologies, such as advanced materials and novel storage systems, are crucial for overcoming existing challenges and promoting widespread adoption. As the world strives towards achieving carbon neutrality, the evolution of hydrogen technologies stands at the forefront, offering a glimpse into a future where clean and efficient energy solutions drive global progress.

Sieverts Apparatus setup for PCI Measurements

**Coordinator's: Prof. BENEDICT THOMAS 14792 - Associate Professor Sr. - SMEC**