

## About VMSBUTU, Dehradun

Veer Madho Singh Bhandari Uttarakhand Technical University (VMSBUTU), Dehradun was established on 27th January 2005 by Govt. of Uttarakhand through the Uttarakhand Technical University Act 2005. It is situated at NH-72 Suddhowala, Dehradun. There are 81 Affiliated Private Institutions and 12 Government Institutions in the University. University is running 08 UG, 6 PG and 18 Ph.D programmes with approximately twenty thousand students in various courses.

## About THDC-IHET, Tehri

THDC Institute of Hydropower Engineering and Technology (THDC-IHET) is a campus institute of Veer Madho Singh Bhandari Uttarakhand Technical University, Dehradun, established in Bhagirathipuram, Tehri, the heart of hill state Uttarakhand. The institute is situated at distance of 3 km from the Tehri dam, which is one of the largest hydropower dams in the world.

The institute is providing B. Tech course in core engineering streams and M. Tech in Hydropower & Renewable Energy; fostering the spirit of national integration among the students, a close interaction with industry and a strong emphasis on research, both basic and applied. The institute provides grand infrastructure, well equipped labs, modernized classrooms, computer centre, seminar hall and a fully automated library. In addition, best possible facility of hostel, sports, gym, canteen, guest house, start-hub, exhibition hall and transportation are also offered. Well qualified faculties of the institute provide best educational, research and professional environment.

## About the Department

The Department of Mechanical Engineering has been an integral part of the institute since its inception. It offers a comprehensive UG program in Mechanical Engineering and a PG program in Hydro and Renewable Energy. The department boasts state-of-the-art infrastructure, including fully equipped laboratories designed to deliver high-quality, hands-on education. In addition to academic excellence, the department regularly organizes extracurricular activities aimed at fostering creativity and innovation among students. With advanced laboratory facilities and cutting-edge equipment, the department is well-positioned to support both learning and research.

### Chief Patron

**Prof. Onkar Singh**

**Vice Chancellor**

**Veer Madho Singh Bhandari Uttarakhand  
Technical University, Dehradun**

### Patron

**Prof. Sharad Kumar Pradhan**

**Director**

**THDC Institute of Hydropower Engineering and  
Technology, Tehri**

### Coordinator

**Mr. Himanshu Nautiyal**

**Assistant Professor**

**THDC Institute of Hydropower Engineering and  
Technology, Tehri**

### Co-Coordinator

**Mr. Nitin Kumar Gupta**

**Assistant Professor**

**THDC Institute of Hydropower Engineering and  
Technology, Tehri**

AICTE Training and Learning (ATAL)  
Academy  
Faculty Development Programme (FDP)  
On  
**Clean & Alternate Energy for Sustainable  
Development: Innovations and Trends**

(15-20 September, 2025)



### **Coordinator**

**Himanshu Nautiyal**

Mechanical Engineering Department  
THDC Institute of Hydropower Engineering &  
Technology, Bhagirathipuram, Tehri-249124  
(Campus Institute of Veer Madho Singh Bhandari  
Uttarakhand Technical University, Dehradun)  
[www.thdcihet.ac.in](http://www.thdcihet.ac.in)

## About ATAL Academy

All India Council for Technical Education (AICTE) through its newly established AICTE Training and Learning (ATAL) Academy have intimated Faculty Development Programs in various thrust domains of modern technology to impart quality training to Faculty Members, Research Scholars and PG students. The objectives of ATAL Academy are as follows:

- To set up an Academy which will plan and help in imparting quality technical education in the country.
- To support technical institutions in fostering research, innovation and entrepreneurship through training.
- To stress up on empowering technical teachers & technicians using Information & Communication Technology.
- To utilize SWAYAM platform and other resource for the delivery of trainings.
- To provide a variety of opportunities for training and exchange of experiences. Such as workshops, Orientations, learning communities, peer mentoring and other faculty development programmes.
- To support policy makers for incorporating training as per requirement.

## About FDP

The Development Programme (FDP) aims to provide faculty members, researchers, and professionals with a comprehensive understanding of the latest advancements in clean and alternative energy technologies. As the world grapples with climate change, depleting fossil fuels, and environmental degradation, the transition to sustainable energy sources has become imperative.

This FDP is designed to address these pressing issues by exploring innovative technologies and emerging trends in solar, wind, biomass, hydrogen, and other renewable energy sources. Through expert lectures, case studies, and hands-on sessions, participants will gain valuable insights into the practical challenges and opportunities in the clean energy sector.

By fostering interdisciplinary learning and collaboration, this FDP seeks to empower faculty members with the knowledge and tools needed to contribute meaningfully to sustainable development goals. It will also encourage research, innovation, and the integration of clean energy concepts into academic curricula, ultimately shaping future engineers and scientists to lead the energy transition responsibly and effectively.

## Contents

The major themes/contents of the FDP are as follow:

- Design and Development of Solar Parabolic Trough Collector for Direct Steam Generation
- Hydropower Technologies and Operations
- Innovations in Green Hydrogen Technologies
- Recent Innovations & Future Trends in Bio fuels
- Application of AI in Renewable energy Technologies
- Pumped storage hydropower generation.
- Biomass Combustion Devices
- Wind Energy Resource Assessment
- Phase Change Materials
- Solar Air Heater Technologies
- Case Studies
- Field Visits

## Who Can Attend

The faculty members of AICTE approved Institutions, Universities, research scholars; PG Students; Participants form Government, Industry and professionals from R&D labs.

## Registration Process

There is no registration fee for participants. All boarding and lodgings arrangements will be made by THDC-IHET, Tehri. External Participants (traveling more than 20 km one side to attend the FDPs) who attend at least 90% of the sessions shall be reimbursed lump sum Rs. 1200.00, at the end of the FDP. Registrations can be done online using the link: [www.aicte-india.org/atal](http://www.aicte-india.org/atal)

### Contact Person

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