# Online Self-Financed Short Term Course On

# Emerging Trends in Renewable Energy Technologies (ETRET-2022)

20<sup>th</sup> - 24<sup>th</sup> June, 2022



# Organized by

Department of Mechanical Engineering Motilal Nehru National Institute of Technology Allahabad Prayagraj-211004, UP, India

#### **ETRET-2022 Committee**

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# **Course Outline**

# IC Engines/Alternative Fuels/HEV:

- Alternative fuels production and utilization (Biodiesel, Ethers and Alcohol blended conventional fuels)
- Energy and thermal management of hybrid electric vehicles

### Solar energy and its applications:

- Solar radiation and its measurements
- Solar geometry
- Solar photo-voltaic
- Solar architecture
- Solar thermal applications



# Wind Energy:

• Wind Turbine Technologies, Performance Analysis, Vortex Bladeless Turbine

# Biomass:

- Renewable fuel production using biomass
- Biomass waste management

# Refrigeration using Renewable:

- Low GWP refrigerator
- Environmentally friendly refrigerants

# Prayagraj

Prayagraj is among the largest cities in Uttar Pradesh, situated at the confluence of three rivers-Ganga, Yamuna, and the invisible Saraswati. Prayagraj has many government institutions, which includes Allahabad University, HRI, IIIT Allahabad, High Court of UP, AGUP, CDA Pension, State Government education board, and various tourist places like Anand Bhawan, Khusro Bagh, Chandra Shekhar Azad Park, and Bharadwaj Park.

#### **About The Institute**

Motilal Nehru National Institute of Technology Allahabad (formerly MNREC Allahabad) is one of the oldest RECs set up in the country. Since its establishment in 1961, it has been a center of technological excellence in the state of UP as well as the country. In 2002, it was transformed into the National Institute of Technology and a Deemed University fully funded by the Government of India. In 2007, the Institute was granted the status of an Institution of National Importance.

Conforming to its motto, 'Siddhirbhawati Karmaja' the Institute is churning out engineers, entrepreneurs, and social scientists of sterling worth. Today, MNNIT stands as an epitome of excellence, knowledge, and achievements. The Institute boasts of a rich and diverse cross-cultural environment with students from across the nation and around the globe for various undergraduate, postgraduate, and doctoral programmes such as BTech, MTech, MCA, MBA, MSc, and PhD. GOI has recognized it as one of the Quality Improvement Programme (QIP) centers for the MTech and PhD programs. It is also a lead Institution under the World Bank funded GOI Project on TEQIP.

# **Department of Mechanical Engineering**

The Department of Mechanical Engineering is one of the oldest and largest departments in the Institute. It offers two B. Tech. Programmes (Mechanical Engineering and Production and Industrial Engineering), five M. Tech. Programmes (Computer-Aided Design/Manufacturing, Design Engineering, Production Engineering, Product Design and Development, and Thermal Engineering), and a PhD programme. The department has 36 highly qualified faculties and is also a QIP centre for PhD and MTech programmes.

#### **ETRET-2022**

The Emerging Trends in Renewable Energy Technologies (ETRET-2022) Course will be held under the aegis of MNNIT Allahabad and will be conducted for five (5) days at MNNIT Allahabad, Prayagraj, India, from 20<sup>th</sup> to 24<sup>th</sup> June, 2022. This course is designed to guide the participants through the different classes of renewable energy. The participant will be able to identify the importance of Renewable Energy and its applications with advanced technologies. Finally, they will be able to apply these concepts in their research work and can add them to the course curriculum.

#### Who Can Attend This Course?

The course would benefit many across various disciplines of engineering and technology. It is of interest to teachers and researchers, UG, PG, and doctoral students of different Universities/ Institutes/ Colleges & professionals working in the area of renewable energies. The course will be conducted online, and further details will be communicated to all registered participants in due time.

# **Speakers**

Faculty members/experts from IITs/ MNNIT/ Other NITs and other premier institutions and industries will deliver lectures and conduct hands-on sessions during this course.

# Registration

To register for this course, the applicants will have to pay fees in advance in the name of **NON FORMAL CONTIUING OF EDU** as per the following details:

A/c No: 10424975574

Bank Name: SBI, MNNIT Allahbad

Branch: MNNIT Allahabad IFSC Code: SBIN0002580

Category	Fees (INR
Students	500
Academia	800
Industries	1000

\*Registration fee is inclusive of GST and non-refundable

During payment / transaction of registration fee, kindly put "2022-23MED-09" in remark section. The participants have to register at the following registration link.

#### Registration Link:

https://docs.google.com/forms/d/e/1FAIpQLSeWGGqNAYnOX8EkJmx\_gMLgowLytszic87\_qVkFHPUjDrVh4g/viewform

# **Important Dates**

Last date of Registration June 18, 2022 Intimation of confirmation June 19, 2022