

**A  
Five Day Short Term Course**

**On**

**Green Hydrogen and Fuel Cell  
Technology  
19–23 February 2024**



**Organized by**

**Department of Chemical Engineering  
Malaviya National Institute of Technology  
Jaipur – 302017  
India**

*In Association with*



**Diamond Jubilee  
Celebration  
MNIT Jaipur**



**IChE Jaipur  
Regional Center**

**PATRON**

**Prof. N. P. Padhy**  
Director, MNIT Jaipur

**CHAIRMAN**

**Dr. Sushant Upadhaya**  
HoD Chemical Engg.

**COORDINATORS:**

**Dr. Neetu Kumari**, Assistant Professor  
**Dr. Hrushikesh M. Gade**, Assistant Professor  
**Dr. U. K. Arun Kumar**, Assistant Professor

**CONVENERS:**

**Dr. Rajeev Dohare**, Associate Professor  
**Dr. Madhu Agarwal**, Professor

**IMPORTANT NOTE**

The number of participants for the workshop is limited to 40. Therefore, the registration is based on first come first basis. Last date of registration is 12<sup>th</sup> February 2024.



**ABOUT THE DEPARTMENT**

The Department of Chemical Engineering commenced in 1988 with 30 undergraduate students in the B. Tech. Chemical Engineering program and has been doing its best to bring about excellence in academics achieved in the last 35 years. PG Programs of M. Tech. in Chemical Engineering and Ph.D. were started in 2006 and 2004, respectively. The current sanctioned strength of the B. Tech. Chemical Engineering Program and M. Tech Chemical Engineering Program are 116 and 15, respectively, for Full-time Courses.

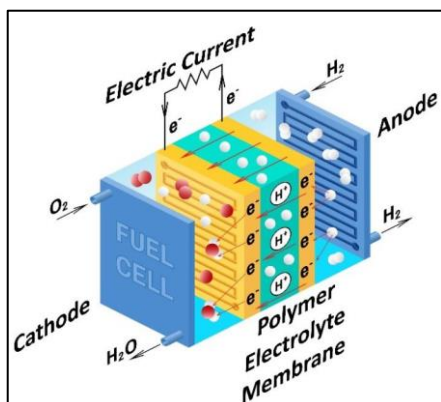
**ABOUT MNIT JAIPUR**

The Institute was jointly established in 1963 as Malaviya Regional Engineering College Jaipur by the Government of India and the Government of Rajasthan. Subsequently, on 26 June, 2002, the college was given the status of National Institute of Technology. On 15 August 2007, it was recognized as the Institute of National Importance through an Act of Parliament. The Institute is fully funded by the Ministry of Education (Shiksha Mantralaya), Government of India.



## ABOUT THE PROGRAM

Fuel Cells have emerged as more efficient devices that convert chemical energy in a fuel into electrical energy. Fuel Cells are superior to other power generating techniques available today. A fuel cell operating on pure hydrogen emits zero emissions at the source and produces water as by-product. Some stationary fuel cells use natural gas or hydrocarbons as a hydrogen feedstock, but even these systems produce far fewer emissions than conventional power plants. There are no moving parts in a fuel cell stack, making them more reliable and quieter than generators. Unlike batteries that must be disposed of once their chemicals are used up, fuel cell reactions do not degrade over time and can theoretically provide continuous electricity. Traditional power plants must be large to gain efficiency, but fuel cells can achieve higher efficiencies at any scale, making them perfect for small portable, residential, and transportation uses. The workshop is designed for Undergraduate, Post Graduate, Research Scholars and University Faculty members.



## **Topics to be covered:**

- Green Hydrogen Production Technology: Fundamentals
- Photo-electrolysis/ Water-electrolysis techniques for Hydrogen Production
- Hydrogen Storage
- Introduction to Fuel Cell
- Fundamental and Applications
- Reaction Kinetics
- Cell charge and Mass Transport
- Characterization
- Fuel Processing
- Fuel Cell Stacks: Overview

## RESOURCE PERSONS

The lectures will be delivered by faculty members from IITs/NITs, and reputed Institutions.

## REGISTRATION FEES (Inclusive of GST)

Participant Type	Registration Fees
UG /PG Students & Research Scholars	Rs.2500
MNIT UG/PG students, & Research Scholars	Rs.1500
Faculty Members	Rs.3500
Industry Persons	Rs.5000

## MODE OF PAYMENT

NEFT/IMPS:

Name: Registrar (Sponsored Research) MNIT  
Account No.:676801700388  
IFSC CODE: ICIC0006768 (ICICI BANK, MNIT)

## REGISTRATION FORM

**After fee submission, the applicant must register themselves by submitting details on google form link below:**

<https://forms.gle/HmzSRBDVW2M1ABh88>

For any query, the applicant may contact on

## ADDRESS FOR COMMUNICATION

**Coordinators:**

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