

About NIT Tiruchirappalli

National Institute of Technology Tiruchirappalli (NIT-T), formerly known as Regional Engineering College, Tiruchirappalli (REC-T) is one of the technical institutes started by the Government of India. REC-T was imparting quality education since its inception. In 2003, the institute has been granted “Deemed to be University” status with the approval of UGC/AICTE. NIT-T was registered under Societies Registration Act XXVII of 1975. The College has a total campus area of 800 acres. NIT-T ranked top among NITs and is in top 250 of QS Asia University rankings. With the cream of engineering and management talent, encompassing exuberant students and inspiring faculty, integrated with state-of-the-art infrastructure facilities, NIT-T today has emerged as one of the premier institutions in the country.

About the Department

The Department of Chemical Engineering at NIT-T was established in 1968 and is regarded as one of the premier institutes for in Chemical Engineering in India by industries and academia. It offers a B. Tech programme in Chemical Engineering, M. Tech programmes in Chemical Engineering and Process Control & Instrumentation and Doctoral programme. The department is backed by highly qualified and experienced faculty members and are involved in teaching and research with a main focus on energy and environmental engineering, control systems and separations. The department is equipped with several state-of-art laboratories, computing facilities and analytical facilities.



**One Week
SERB SPONSORED
HIGH-END**



**(KARYASHALA) WORKSHOP ON
MICROBIAL FUEL CELLS: A SUSTAINABLE
TECHNOLOGY FOR CLEAN WATER AND GREEN
ENERGY**

4 to 9th March 2024



ORGANIZED BY

**DEPARTMENT OF CHEMICAL ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY
TIRUCHIRAPPALLI - 620 015**

Event Coordinators

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About the workshop

Microbial Fuel Cells (MFCs) are recent green technology that combines the removal of the pollutants along with the generation of value added products like bioelectricity, biohydrogen etc. during domestic and industrial wastewater treatment. For the past two decades, an extensive research has been focused towards the development of this technology from lab scale to pilot scale demonstration. However, the major drawbacks of the system are less power production, coulombic efficiency and expensive electrodes etc. These issues need to be addressed by the development of inexpensive electrodes, catalyst, exoelectrogenic microorganism etc. Hence, the main objectives of the present workshop are to bring the research scholars and PG students to understand the basic principles to scale-up, challenges and future prospects of MFCs in real applications. The following topics to be covered

- **Basic principles and thermodynamic of MFCs**
- **Exoelectrogenesis and identification of species for MFCs**
- **Anode, Cathode and Membrane materials /catalyst on MFCs**
- **Cyclic voltammetry and EIS behavior in MFCs**
- **Mathematical modeling, Process optimization of MFCs**
- **Scale up and stacked type MFCs**
- **Hands on training on MFC studies**

This workshop mainly concentrating the PhD and PG students in science and engineering who are interested in this field would get an opportunity to gain the invaluable knowledge, which will aid them in the future to make substantial contribution in this field. Interaction with eminent speakers can lead to various collaborative research proposal thus leading to a symbiotic association between the research groups.

Resource Person

- Speakers from International academicians, IITs, NITs, R&D organizations, Industrialist will deliver lecture.

Programme Mode and Schedule

Workshop will be conducted **OFFLINE MODE ONLY** and experts may join through online mode due to their availability. The schedule of the programme will be shared to the participants through their registered email id.

Who Can Attend

- Research Scholars, PG and B. Tech (Final year) students from Science and Engineering disciplines are eligible.
- **The number of participants will be restricted to 25.**

Registration Fee

- **Registration Fee : NIL**
- **TA/DA and free accommodation will be provided.**
- Registration confirmation based on their research interest and on a first come first serve basis.
- Use the link for the course registration

https://docs.google.com/forms/d/e/1FAIpQLSdQd32vMnhSnfPe0dJpTRbxNxtDoqImRbOminaxImHzHkcbUg/viewform?usp=sf_link

Important Dates

Last date for submission or Registration	: 21 st February 2024
Confirmation of Participation	: 22 nd February 2024
Workshop Dates	: 4 th to 9 th March 2024