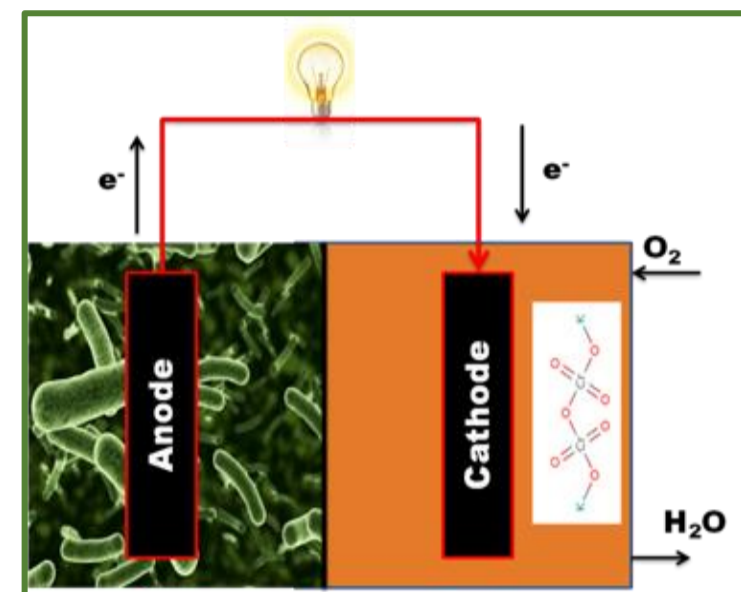


## Workshop on Microbial fuel cell as a sustainable approach for water and wastewater treatment

28<sup>th</sup> of Feb, 2023 (from 9:00 am to 4:00 pm)

### Aim of workshop

Our workshop aims to transfer the knowledge of using microbial fuel cell (MFC) as a new and a sustainable approach for water and wastewater treatment. Microbial fuel cell is one of bioelectrochemical system in which oxidation of organic matter in anode chamber to produce electrons and protons will catalyze under complete anaerobic conditions by microorganism. Electrons will transfer from anode to cathode through external wire leads to electricity generation. Protons will transfer from anode to cathode through cation exchange membrane. In presence of oxygen and electron acceptor, protons react with electrons in cathode chamber and produce water. Consequently, since microbial fuel cell aiming to get ride of organic matter and produce electricity and water is the only side product it can be consider as a sustainable approach for green electricity generation and wastewater treatment.



This workshop will be organized by Department of Biotechnology, Institute of Graduate studies and Research, Alexandria University and STDF and it will be suitable for students and research scientists interested in water and wastewater treatment using new and sustainable techniques. In addition, the trainers will start to be familiar with microbial fuel cell construction, operation and its applications. Workshop will end by optimization to enhance its performance.

Time	Subject
9 am- 9:15 am	▪ Registration
9:15 am – 10 am	▪ Introductory presentation about MFC
10 am – 11 am	▪ MFC construction and operation
11 am – 12 pm	▪ Check MFC performance and its optimization
12 pm – 1 pm	▪ Coffee break
1 pm – 2 pm	▪ Applications of microbial fuel cell for nutrient recovery
2 pm – 4 pm	▪ Practical part



### Workshop Coordinator

Dr. Hanan Moustafa

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IGSR, Alexandria University

PI of USA- Egypt project ID # 42697 funded by STDF

### Course Fee

- 150 EGP for students
- 250 EGP for staff
- 500 EGP for non academic fees including certificate of participation and coffee breaks

## للجز والإسعلام

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