

PETROLEUM AND ENVIRO ENERGY STUDIES LABORATORY

Faculty Details:



Dr SANTHOSHINI PRIYA T

Assistant Professor,
Department of Chemical Engineering
A.C.Tech Campus, Anna University
Tamil Nadu, India - 600025.

Ph: 044 2235 9125

E-Mail: santhoshinithomas@annuniv.edu

About the Laboratory:

This laboratory consists of Photocatalytic dye degradation studies, Desalination of brackish water studies, Petroleum studies etc... Considering the importance of environmental problems and its solutions, energy sector and oil/gas sectors, this laboratory have been established in our department of chemical engineering. The focus of this laboratory is to impart technical knowledge among the students, research scholars, project staffs on the important areas of environmental, energy and petroleum studies like photocatalytic dye degradation, desalination, energy studies and petroleum studies. This lab is equipped material synthesis, processing and testing.

Accomplishment:

Title of the Project	Amount Sanctioned(Rs.)	Funding Agency	Role	Duration
Photo catalytic Degradation of organic contaminants in a fluidized bed under visible light irradiation under "Young Faculty Research Scheme".	49,000.00	CTDT, Anna University	PI	2015-2016 Completed
Study of reaction kinetics by dielectric spectroscopy technique	9,00,000.00	ISRO respond scheme	CO-PI	2020-21 Completed

Development of cathode Materials in Lithium-Sulfur battery for Electric Vehicle Applications	1,80,00,000.00	RUSA 2.0	Team Member	2021-23 Ongoing
Capacitive Deionization for salt recovery from RO Reject	28,75,400.00	DST SEED	PI	2020-2023 Ongoing
Smart Water Dispenser using Capacitive Deionization Technology	25,000.00	CTDT, Anna University	Mentor	06 Months (Till December 2022) Ongoing

Patents Filed/Applied

- Applied for patent titled “A metal oxide based carbon flow electrode composite for capacitive desalination and preparation method thereof” at CIPR, Anna University.

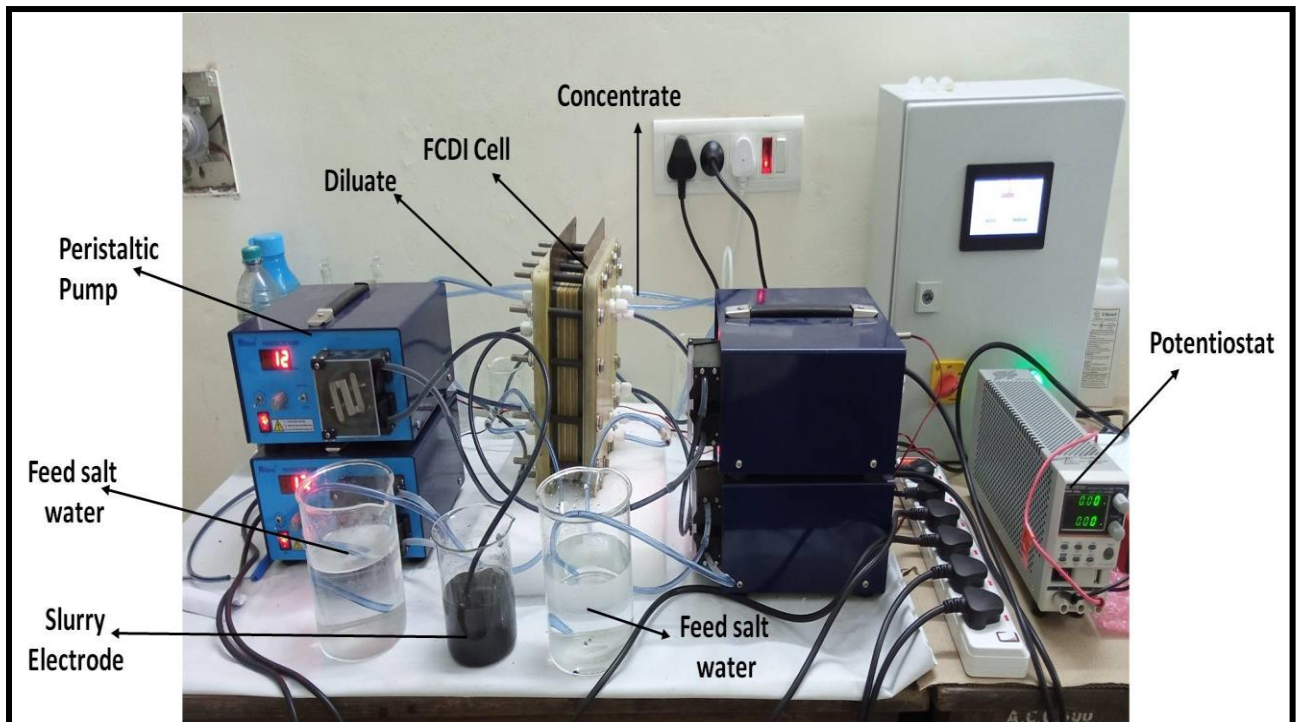
List of Major Equipments:

S.No.	Name of the equipment
1.	CDI – Single stack
2.	CDI – Double stack
3.	Electrochemical workstation
4.	TDS/Conductivity meter
5.	Peristaltic Pump
6.	DC Power supply
7.	Magnetic Stirrer
8.	Ultrasonicator
9.	Microwave Oven
10.	Weighing Balance
11.	Centrifuge

List of Research Scholars/ Project Staffs:

S. No.	Name	Designation	Duration
1	Hameed Hussain	Project Associate I	15 th Dec 2020 to 02 nd Mar 2022
		Project Associate II	03 rd Mar 2022 to Till 02 nd March 2023

Photos



Capacitive Deionization



Fluidized Bed Photocatalytic Reactor