SDPC
Skill Development Program @ CeNS

CeNS

Schedule for "Electrochemical Workstation (CV, GCD, EIS)" course

Session	Day – 1	Day – 2	Day – 3
Morning	***Introduction and theory*** Basic electrochemical concepts and Definitions Introduction of Cyclic Voltammetry Cyclic Voltammetry Profile Introduction to the Nernst Equation Introduction to the Electrochemical Cell Galvanostatic Charge Discharge method	***Hands-on*** Electrode and Electrolyte preparation Cyclic Voltammetry data acquisition Galvanostatic Charge-discharge Data analysis	***Demonstration and Hand-on*** Electrochemical impedance spectroscopy Bode plot Nyquist plot Data fitting with models Importance of various paraments on impedance measurement EIS of a supercapacitor and solar cell
Afternoon	***Demonstration*** Electrode and Electrolyte preparation Cyclic Voltammetry data acquisition Galvanostatic Charge-discharge Data analysis	***Introduction and theory*** Introduction to Electrochemical Impedance Spectroscopy (EIS) The classical idealized components Series and Parallel circuits Nyquist plots Application of EIS to various devices	***Discussion on opportunities after the course*** Opportunities in industry & academia Skills required ***Evaluation and Discussion***

Instructors:

Dr. Ashutosh Singh, Mr. Mukhesh K G, Mr. Rahuldeb Roy (***CV & CD***)

Dr. Kavita Pandey, Mr. Sabiar Rahaman Dr. Manmohan Singh, Mr. Kaifee Sayeed (***EIS***)

Detail about the instrument is provided on the following link:

http://crf.cens.res.in/facilities/GH-GAMRY-1/

http://crf.cens.res.in/facilities/GH-ElecChem/