

Electrochemical Impedance Spectroscopy Summer School 2017

Fundamentals and Application on Electrochemical Impedance

23 - 25 January 2017

Venue

CSIR-CECRI, Karaikudi

Organized by

Society for Advancement of Electrochemical Science and Technology,
Karaikudi, Tamil Nadu



In association with

CSIR-Central Electrochemical Research Institute, Karaikudi, Tamil Nadu



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Supporter

Solartron-AMETEK



CSIR-CECRI



About the Course:

This course is planned to learn about the theory and practice of EIS (Electrochemical Impedance Spectroscopy) at the EIS Summer School in CSIR-CECRI.

The EIS Summer School 2017 will be held at the CSIR-Central Electrochemical Research Institute, Karaikudi, India during 23-25 January 2017. The training course provides an introduction to Electrochemical Impedance Spectroscopy theory, practice, fitting analysis and applications. The summer school is hosted by Society for Advancement of Electrochemical Science and Technology (SAEST), CSIR-CECRI, Karaikudi and researchers from the University of Bath, IIT Mumbai, University of Delhi, alongside Solartron Analytical (Ametek). This course is highly academic and hands on experience with equipments and fitting analysis. The summer school includes guest lecturers from experienced researcher from both theory and experimental.

Hands-on, Practical Sessions:

The training course is taught in small groups, with a strong emphasis on practical work. A portion of your time will be spent using EIS instruments in the laboratory under the guidance of course demonstrators. This gives you hands-on, practical experience and demonstrates the link between theory and experiment. The number of participants is limited, so everyone has full access to the instruments.

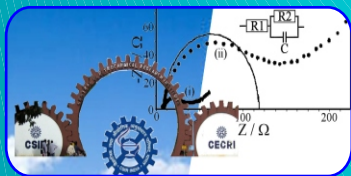
The principles of EIS will be introduced in lectures, supported by full documentation in the course notes provided. The first practical sessions will cover the apparatus used for impedance measurement. You will learn how to set up and interface the hardware, and how to troubleshoot common problems. Following on from this, the majority of the practical sessions will consist of experiments carefully chosen to demonstrate the principles and applications of frequency response analysis.

EIS Experiments

- Getting to know the equipment
- Impedance of model circuits
- Impedance of a simple redox system
- Impedance of corroding metals inhibitors
- Impedance of corrosion polymer coatings
- Impedance of batteries
- Impedance of solar cells
- Impedance of fuel cell materials
- Measuring dielectric properties

Outcome of the Programme

At the end of the three days, you will be able to use frequency response analysers and potentiostats, and interpret and fit the data using non-linear regression programmes.



Course Fee:

Scientist/Faculty	Rs. 7000
Research Scholar	Rs. 5000
Industry	Rs. 10000

The registration fee may be paid online or in the form of crossed DD. DD should be drawn in favour of SAEST, Karaikudi payable at Karaikudi or online payment (RTGS) to Indian Bank, A.C. Campus Branch, Karaikudi, in favour of SAEST, Karaikudi. A/c. No. 530826817, IFSC Code: IDIB000A008.

For further communication:

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