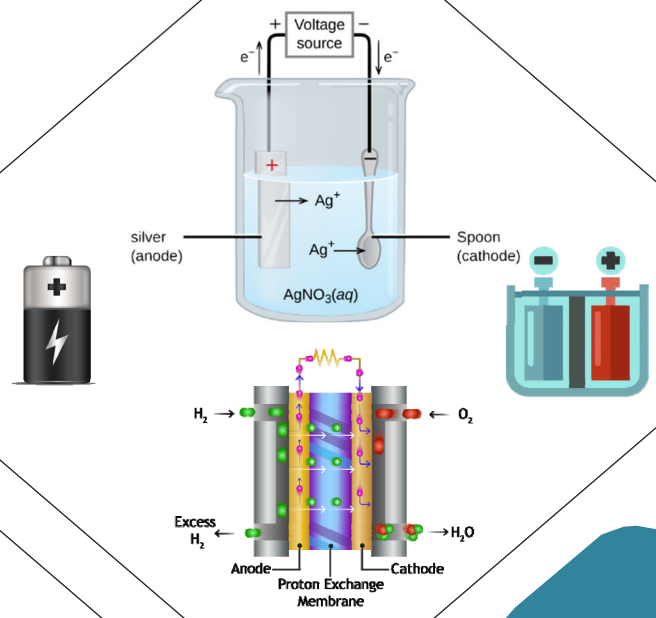
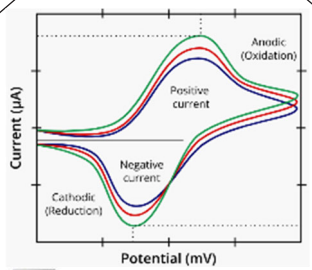
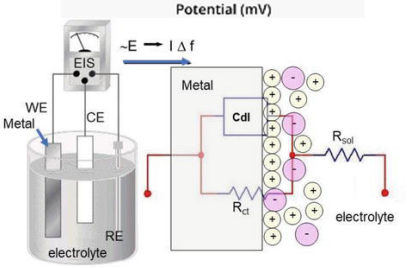
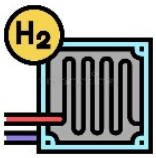
CSIR Integrated Skill Initiative Program
on
Electrochemical Processing Techniques & Characterization for Industrial Applications (EPCIA-2022)
21st – 22nd April 2022









Organized by

CSIR-Institute of Minerals & Materials Technology, Bhubaneswar, Odisha – 751013

About the Program

CSIR-Institute of Minerals and Materials Technology offers a two-day specialized skill development program on "Electrochemical Processing Techniques and Characterization for Industrial Applications" on 21st and 22nd April 2022 to provide hands-on experience to participants to understand the basic principles of electrochemical techniques and their applications in various industries. Participants will be exposed to laboratory experimentation and given hands-on training on chosen electrochemical techniques relevant for current and future industrial applications. The program also includes an industry visit for participants to understand the commercial application and actual scale of electrochemical processing.

Highlights of the Program

Electrochemical series and industrial applications
Electrochemical cells, Battery and Fuel cell technology
Electroanalytical methods
Electrochemical processes:
Electrometallurgy in metal extraction technology
Deposition/Plating, Polishing, Anodizing
Good laboratory practices for electrochemical experimentation and
Safety measurements for electrochemistry laboratory

Lectures, demonstration & hands-on experiments

- ✓ Electrochemical series related experiments
  - Preparation of galvanic cell and analysis
  - Experiments with standard Ag/AgCl reference electrode
- ✓ Supercapacitors and standard fuel cells
- ✓ Electrochemical hydrogen generation
- ✓ Hands-on session with Electrochemical processes
  - Electrodeposition of Copper and Nickel
  - Anodization of Aluminium & Titanium
  - Electropolishing of substrates and
  - Electroless plating of Nickel
- ✓ Hands-on session with electrochemical workstation for electroanalytical methods
  - Cyclic Voltammetry (CV)
  - Linear Sweep Voltammetry (LSV),
  - Chronoamperometry (i-t),
  - Chronocoulometry Galvanic charge-discharge (GCD),
  - Electrochemical Impedance Spectrophotometry (EIS)
- ✓ **INDUSTRY VISIT** –
  To understand the scale of operation & commercial application of electrochemical techniques

Program Fee

Students: Rs. 1,500/- ; Industry Personnel: Rs. 3,000/-
(Inclusive of Registration kit, Certificate, Session tea, Working lunch & Industry Visit)
Participants have to make their own arrangements for travel & accommodation.
Program charges may be paid in the form of Online Transfer through UPI/NEFT to
A/c No.: 30267734773
A/c Name: Industrial Research Fund
Name of Bank: State Bank of India;
Branch: IMMT CAMPUS BRANCH,
IFSC CODE: SBIN0007499

Who can participate

Registered PhD candidates and M.Tech/M.Sc Students / Young professionals (less than 35 years of age) from relevant industry
*Submit application for participation with relevant documents

LAST DATE FOR APPLICATION: 19th April 2022 12 noon

Course Organizers

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(Organizer & Resource Person)
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(Resource Person)
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For more information about other Skill Development Programs at CSIR-IMMT write to:

Dr. Siddhartha Kumar Pradhan
Sr. Principal Scientist, Skill Development Coordinator, CSIR-IMMT Bhubaneswar
AMT Dept., CSIR-IMMT, Bhubaneswar
skpradhan@immt.res.in

CSIR-INSTITUTE OF MINERALS AND MATERIALS TECHNOLOGY
(Council of Scientific & Industrial Research)
BHUBANESWAR – 751 013

APPLICATION FORM

Skill Development Program on

Electrochemical Processing Techniques and Characterization for Industrial Applications

(21st – 22nd April 2022)

1. Name of the Candidate:

2. Address:

PHOTO

E-mail: **Mobile:**

3. Date of Birth:

4. Nationality :

5. ID Proof (Aadhar No.)*:

6. Institutional/College/University/Industry ID No.*:

7. Record of Academic Qualifications:

Qualifying Degree	College/ University	Subjects	Class/ Division	Year of Passing	% marks scored (or Grade Points)

8. Research/Work Experience (if any):

9. Any other (Employment history / relevant training acquired):

10. Regn. Fee transaction details:
Amount:_____ **Tr.no:**_____ **Date:**_____

DECLARATION

I declare that the above information furnished by me is true to the best of my knowledge and belief. If selected, I hereby agree to abide by the Rules and Regulations of the course framed by CSIR- IMMT, Bhubaneswar.

Candidate's Signature

* Attach Aadhar & Valid Institutional/Industry ID proof copy

Scanned copies of the filled application along with fee transaction details is to be emailed to balaji@immt.res.in

Applications without attachments will be rejected