

Department of Metallurgy Engineering and Materials Science
Indian Institute Of Technology Indore



Organizes

5-Days Online Faculty Development Program

On

Advances in Corrosion Science and Engineering

21-25 November 2020

Sponsored by Technical Education Quality Improvement Programme (TEQIP-III), Ministry of Education

TEQIP-3
Technical Education Quality Improvement Programme

About the Faculty Development Program

The objective of this Faculty Development Program (FDP) is to bring together academicians, scientists and researchers through academic training and learning activities to augment and expand on acquired knowledge and encourage in-depth discussions through tutorials to prepare for research-led activities. The course is designed to provide basic and advance understanding to the participants on the corrosion science and engineering. The course will cover topics in analysis of corrosion by advanced instrumental techniques, various approaches for corrosion protection, mitigation, designing of corrosion experiments and materials selection for corrosion protection.

Course Details

- **Define corrosion and recognize the economic, environmental and safety impact of corrosion.**
- **Back to the basics of Corrosion Science and Engineering:** Recognize terms and definitions of basic electrochemistry, as well as define the processes and concepts of electrochemistry, oxidation and reduction reactions, thermodynamics, kinetics, and passivity, forms and types of Corrosion, how to recognize each form and how to control each form, Susceptibility to hydrogen damage effects and Weldment Corrosion, etc.
- **Monitoring of Corrosion:** Corroded metal surface examination by microscopic and spectroscopic technique, Pit formation analysis, Linear polarization method, Electrochemical impedance spectroscopic (EIS) measurement, Corrosion monitoring in presence and absence of oxygen, Corrosion analysis by Fluorescence spectroscopic method, Thermogravimetric analysis, etc.
- **Corrosion Protection:** Galvanization- Cathodic protection, Sacrificial anode designing. Coatings- Development of soft material-based coatings, Characterization of coating materials, Coating methods, Characterization of coatings by EIS, and contact angle measurements. Development of corrosion resistant alloys.
- **Roll of metal oxide formation in corrosion protection:** Pourbaix diagram, Pilling-Bedworth ratio and case studies.

Course Module

This is an online short-term course under FDP and comprised of lectures, tutorials, and online experimental training/demonstrations.

Target Participants

This course is tailor made for the faculty members and scientists from TEQIP institutions who wants to gain knowledge and expertise in the field of corrosion science and engineering from any academic background.

Certificate

Participants who successfully complete the course will be awarded with a certificate

Registration Process

Interested participants need to submit online form (<https://forms.gle/Wh4NCNgUQcDrhj2q9>) or the scan copy of as per format attached through E-mail to mdubey@iiti.ac.in Number of participants are limited to 50 on first come first basis.

Registration Fee

No registration fee for faculty members from TEQIP institutes

Participants from non-TEQIP institutes

- Rs. 10,000 (for industry personnel)
- Rs. 4,000 (for faculty / scientist)
- Rs. 2,000 (for student)

Mode of Payment

For Online Payment

<http://www.iiti.ac.in/page/e-payments>

Beneficiary Name: Registrar IIT Indore

Bank Name: Canara bank

Branch: IIT Indore, Khandwa Road, Simrol, Indore

Account number: 1476101027440

IFS Code: CNRB0006223

SWIFT Code/BIC: CNRBINBBISG

Evidence of payment should be emailed in advance to confirm the participation (Participant from TEQIP sponsored institutes are exempted)

Last date for receipt of registration: **November 12, 2020**

Notification for acceptance: **November 15, 2020**

Speakers:

Will be updated soon.

Course Coordinator

Dr. Mrigendra Dubey

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Indore-453552, Madhya Pradesh

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Department of Metallurgy Engineering and Materials Science

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TEQIP-3
Technical Education Quality Improvement Programme

1.	Name of the Participant:	
2.	Designation:	
3.	Academic Qualification:	
4.	Name of the Institution/Organization:	
5.	Address for Communication:	
6.	Phone:	
7.	Email:	
8.	Payment Details:	
9.	Amount:	
10.	Payment Ref. No:	
11.	Transaction Data:	
12.	Bank etc. Details:	

Place:

Date:

Signature of Participant:

Approval /Permission from the Institution/Organization:

We approve the above application as participant for the above FDP, which is being organized by IIT Indore on 21th to 25th November, 2020.

Authorized Signature

Institute/Organization seal