Registration form

Name: _____

Designation: _____

Organization: _____

Address for correspondence: _____
_____
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E-mail: _____

Phone: _____

Particulars of Registration Fee:

DD/Transaction No.: _____**Date:** _____

Amount: _____ **Bank:** _____

Date: **Signature:**

Place:

The details of the account is mentioned below:
Name – CONTNUING EDUCATION NIT ROURKELA
Acct. no. – 10138951784
Bank – State Bank of India
Branch - NIT Campus
IFS Code – SBIN0002109
Account type - Savings

Link for registration:
https://forms.gle/R856wMptCHCv6P5v8

Course venue

NIT Rourkela

NIT Rourkela provides graduate and post graduate degrees for 21 departments in Engineering, Science, Planning and Architecture, Management, and Humanities. The institute's 262-hectare campus is surrounded by beautiful hills, offering a stunning revitalizing setting suitable to study and research. The Institute's lush green campus accommodates all students, faculty, and staff. The campus provides everything a youth needs to build personal, social, and intellectual abilities.

Course deliverables

This 5 day basic corrosion course will cover fundamental aspects of corrosion control and its prevention to analysis of corrosion in different sectors. The course will enable beginners to establish a solid foundation in corrosion before moving on to advanced topics. Exercises, hands-on practical sessions and virtual experiments throughout the course will help participants understand the basic concepts and fundamentals important to corrosion. It provides an excellent avenue for corrosion practitioners, designers, technical managers, inspection and maintenance engineers, quality control personnel and those involved in failure analysis to update their appreciation of corrosion and the awareness of the emerging technologies for corrosion control and prevention.

Contact details

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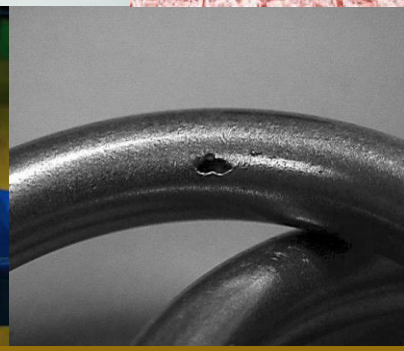
3rd Short term course
On
Corrosion and its control and characterization
December 13 - 17, 2021



Jointly Organized by

Dept. of Metallurgical and Materials Engineering
And
Dept. of Chemical Engineering
National Institute of Technology Rourkela
Rourkela-769008
Odisha, India

Introduction to the course

Corrosion intrudes itself into many parts of our lives and hence the field can never be ignored or perished in this material based civilization. In the most common use of the word, this means aqueous oxidation of metal in reaction with an oxidant. Corrosion degrades the useful properties of materials and structures including strength, appearance and permeability to liquids and gases. Hence proper selection of materials and design, control of environment, application of coatings, addition of inhibitors are most effective in cutting the cost of corrosion and achieving low cost reliability as corrosion can be designed out of the system. It is always easier and cheaper to erase lines on a drawing than to repair or replace failed equipment or components in service. And corrosion testing and evaluation is the backbone of these methodology. Hence proper knowledge and approach to analyze and achieve are inevitable.

This course aims at covering the basic fundamental thermodynamic and kinetic principles underlying the phenomenon of corrosion and then the testing procedures to evaluate corrosion. Finally corrosion in real situations including oil and gas lines, marine environments, chemical and electronic industries etc. have also been covered.

Course outline

Module – I	Introduction to corrosion and its control; Thermodynamics, Pourbaix diagram, Reference electrodes, Passivity, point defect model etc.
	Exercise, practical session, Software practice on corrosion fundamental and construction of Pourbaix diagrams
Module – II	Corrosion kinetics; rate of corrosion, mixed potential theory, exchange current density, Polarization, Evans diagram etc.
	Exercise and practical sessions
Module – III	Corrosion Testing and Monitoring Techniques, weight loss coupon, Electrical resistance, LPR, Tafel polarization, EIS, EPR etc.
	Software practices for rate measurements and impedance analysis
Module – IV	Corrosion control techniques; Materials selection and design, Cathodic and Anodic protections, Alteration of environment, Coatings etc.
	Hands on training on formation of anti-corrosion coatings
Module – V	Mechanism and Recognition of Corrosion. Applications of Corrosion Testing techniques. Marine, Oil and Gas, Chemical Industries and catalysis, etc.
	Hands on training on corrosion forms

Who should attend?

- Young faculties and Research Scholars
- Corrosion practitioners, designers, architects, technical managers, inspection and maintenance engineers.
- Quality control personnel and those involved in failure analysis.
- Facility owners and users who are concerned with corrosion

The successful participants who will attend the whole will be given participation certificate.

Important Dates

Last date for receipt of application is 1st of December 2021 and the notification of acceptance will be by 05th December.

Registration Fees

Faculties from institutes	: INR 500
Industry delegates	: INR 800
Research Scholars	: INR 300

The course fee includes online course material. Participants (Faculty members and Ph.D. students) from NITRKL are exempted from paying registration fees.

Resource Persons

- Prof, Archana Mallik
  Associate Professor,
  Dept. of Metallurgical and Materials Engg.
  NIT Rourkela, India

- Prof. S. Gollapudi
  Assitant Professor
  Dept. of Minerals, Metallurgical and Materials Engg.
  IIT Bhubaneswar, India

- Prof. Adhidesh S. Kumawat
  Assistant Professor,
  Dept. of Chemical Engg.
  NIT Rourkela, India