

Registration form

Name: _____

Designation: _____

Organization: _____

Address for correspondence: _____

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 – CONTINUING 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/DBF8Pm5giCgyQDGD9>



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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Coordinator

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Prof. Adhidesh S. Kumawat

Coordinator

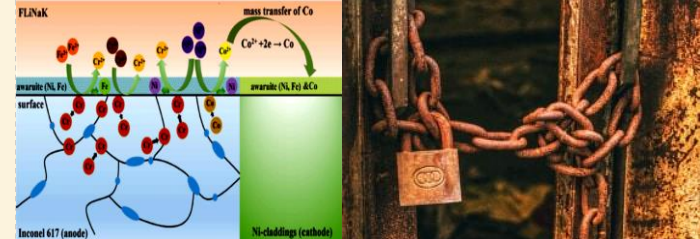
Assistant Professor

Dept. of Chemical Engineering

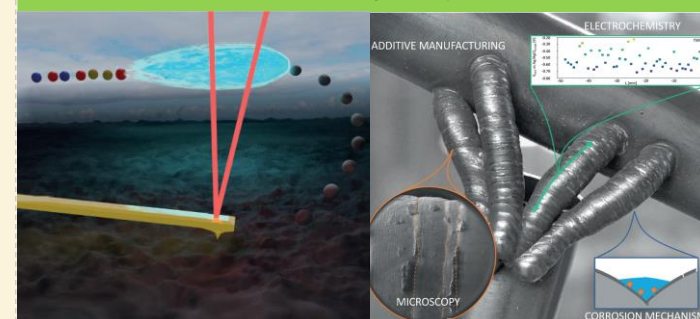
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4th Short term course
On
Corrosion and its control and
characterization
December 05 - 09, 2022



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

Day - 1	Introduction to corrosion and its control; Thermodynamics, Pourbaix diagram, Passivity, point defect model etc.
	Exercise, practical session, Software practice on corrosion fundamental and construction of Pourbaix diagrams
Day - 2	An overview of kinetics of corrosion: Fundamentals and practical applications
	How do metals corrode: Mechanism and recognition of corrosion in industries, Control techniques of corrosion in oil, gas and chemical industries
Day - 3	Corrosion Analysis: Experimentation, Reference electrodes, Tafel polarization, LPR, Electrochemical Impedance Spectroscopy etc
	Case Studies, Software practices for rate measurements, laboratory experiments
Day - 4	Corrosion control techniques; Materials selection and design,
	Software practices and laboratory experimentations
Day - 5	Test - I
	Valedictory Function

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 course will be given participation certificate.

Important Dates

Last date for receipt of application is 1st of December 2022 and the notification of acceptance will be by 04th December.

Registration Fees

Faculties from institutes	: INR 1500
Industry delegates	: INR 2500
Research Scholars	: INR 800

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, Dept. of Metallurgical and Materials Engg., NIT Rourkela, India
- Prof. Arindam Sarkar, Dept. of Chemical Engineering, IIT Bombay, India
- Prof. A. Basu, Dept. of Metallurgical and Materials Engg., NIT Rourkela, India
- Prof. Adhidesh S. Kumawat, Dept. of Chemical Engg., NIT Rourkela, India