

20th
NCCC



संक्षारण नियंत्रण पर 20^{वां} राष्ट्रीय सम्मेलन

Twentieth National Conference on

CORROSION CONTROL

India's Largest Corrosion Science and Technology Conference

ब्रोशर और आलेख आमंत्रण
Brochure & Call for Papers

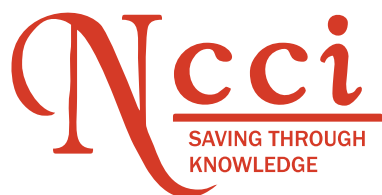
7-9th December, 2023

Venue

Jenneys Residency, Coimbatore



आयोजक / *Organized by*



भारतीय राष्ट्रीय संक्षारण परिषद्, कारैकुडी
National Corrosion Council of India, Karaikudi

In collaboration with

सीएसआईआर-केंद्रीय विद्युतरसायन अनुसंधान संस्थान
CSIR-Central Electrochemical Research Institute

कारैकुडी / Karaikudi

and

गेल (इंडिया) लिमिटेड, नई दिल्ली
GAIL (India) Ltd., New Delhi



GAIL (India) Limited

TWENTIETH NATIONAL CONFERENCE ON CORROSION CONTROL (20th NCCC)

National Corrosion Council of India (NCCI), a non-profit organization and a forum for effective dissemination of knowledge on Corrosion and its Control, is functioning at CSIR-Central Electrochemical Research Institute (CECRI), Karaikudi premises since 1990.

NCCI organises series of conferences/workshops at national level on a regular basis.

In this series, the 20th edition of National Conference on Corrosion Control (20th NCCC) is being organized in collaboration with CSIR-Central Electrochemical Research Institute, Karaikudi and GAIL (India) Ltd., New Delhi, during 7-9th December, 2023 at Jenneys Residency, Coimbatore, Tamil Nadu, India.

Objective

This conference aims to

- * address various industrial corrosion problems.
- * provide a platform for interaction between experts, researchers, innovators, students and professionals from academia, R&D and industry to enhance the state of art knowledge on “Corrosion Science and Engineering”.

Conference theme

20th NCCC is a forum for discussing the industrial problems, ideas derived from current research in corrosion science and engineering and other related topics. It offers an excellent opportunity for sharing of knowledge, solving industrial corrosion problems and promotes budding entrepreneurs.

The focus will be on the following areas:

Corrosion monitoring and its control in oil and gas industries

- * Refinery corrosion
- * Cross country pipelines, fire hydrant pipelines
- * Internal and external corrosion of pipelines
- * Storage tanks, Tank bottoms, Floating and cone roof storage tanks
- * VCI for pipelines and casing pipe
- * AC interference, DC stray current, SSD and grounding systems
- * Microbiological corrosion

Protective coatings

- * Coatings for pipelines
- * Multifunctional coatings
- * Smart coatings and biomimetic coatings
- * Intelligent and self-healing coatings
- * Metal finishing (Galvanizing, electroplating and electroless plating)

Cathodic & anodic protection

- * Design of cathodic protection
- * Impressed current cathodic protection
- * Sacrificial cathodic protection
- * Anodes evaluation and its testing
- * Validation of CP

Corrosion in concrete structures

- * Corrosion resistant reinforcements
- * Coatings to rebar and concrete surfaces
- * Corrosion monitoring sensors
- * CO₂ utilization in constructions
- * Waste to wealth in constructions
- * Health assessment of concrete structures

Corrosion inhibitors

- * Green corrosion inhibitors
- * Inhibitors in industrial applications
- * Cooling water system, boiler, automobile radiator, refrigeration brine etc.,
- * Inhibitors and biocides

Corrosion metallurgy and failure analysis

- * SCC and hydrogen embrittlement
- * Surface analytical and microscopic analysis
- * High temperature corrosion
- * Modelling and simulation

Corrosion management and audit

- * Corrosion Map of India
- * Risk analysis and crisis management
- * Corrosion audit in MSME with special emphasis to Atmanirbhar Bharat

Other industries include

- * Transportation: Automobile, Aerospace, Railways, Shipping & Highways
- * Chemical & Fertilizer plants, Ports, Power plants, Pulp & Paper industries, Steel plants, Nuclear plants, Defence sectors and Construction industries

This conference will involve both invited and contributed presentations from experts and eminent personalities who are working on corrosion and its control.

Scholar session

There will be a separate scholar session to encourage bonafide research scholars.

Guidelines for submission of abstracts & full text

Delegates planning to attend the 20th NCCC have to register through our website (www.nccikkdi.in). They must upload the abstract and full-text before the dead line. The abstract should be limited to 200 words. The technical committee will review the abstracts. The selected papers will be classified for oral/poster presentation during the conference. Accepted papers will be published.

Awards

Award	Eligibility	Prize
Best Paper	Best Oral and Poster Presentation in 20 th NCCC	Certificate and cash award
Best Thesis	Best Ph.D., thesis in the field of corrosion science and engineering submitted for the award of degree during the academic year 2022-23	Shield, certificate and cash award of Rs.5,000/-
Meritorious	Any researcher having eminent contribution in the field of corrosion science and engineering, monitoring, testing and evaluation of materials and basic R&D	Shield, certificate and cash award of Rs.10,000/-
Life time	Scientists / Professors / R&D personnel having more than 25 years of experience may be nominated by an organization or a professional body for his / her contribution in the field of corrosion and its control	Shield, certificate and cash award of Rs.15,000/-

Applicants for the awards (except Life Time Achievement Award) are requested to submit their application on or before **30.09.2023**. A High Level Committee will evaluate the applicants based on their patents, process / technology commercialization, publications, citations etc. Applicants for the Life Time Achievement Award must not have received the Meritorious award from NCCI in the preceding 3 years.

Sponsorship

Category	Amount* (Rs.)	Privileges to the Donors	
		No. of free delegates	Advt. in souvenir / Exhibition
Platinum	6,00,000	10	1 full page colour advt. + 1 stall
Gold	4,00,000	6	1 full page colour advt. + 1 stall
Silver	2,00,000	3	1 full page colour advt.
Bronze	1,00,000	2	1 full page colour advt.

*Amount + 18% GST applicable

Exhibition

An exhibition is being organized concurrently with the conference to provide an opportunity for manufacturers and consultants to showcase their products and services and to interact with the participants. A fee of Rs. 1,00,000/- (Rupees One Lakh only) + 18% GST per stall will be charged. Exhibitors will be given a free package of one page (Colour) advertisement in the Souvenir as well as the nomination of two delegates from their organisation. An exhibiting contributor will be allotted a stall measuring 2m x 2m in the conference venue.

Call for Advertisement

Advertisements are invited for inclusion in the souvenir and the tariffs are as follows:

Advertisement	Black & White (Rs.)	Multi Colour (Rs.)
Full Page	25,000	50,000
Half Page	12,500	25,000

Amount + 5% GST applicable

Registration Fees

Rs. 7,000 + 18% GST = Rs. 8260/- per delegate

Rs. 4,000 + 18% GST = Rs. 4720/- for Bonafide Research Student only (not for faculty & others doing research)

Rs. 4,000 + 18% GST = Rs. 4720/- for accompanying spouse

PAN:AABTN8677M GST No.33AABTN8677M1ZW

National Corrosion Council of India (NCCI)

NCCI organizes national level Conferences / Workshops periodically at important places, covering all aspects of Corrosion Science and Engineering towards enlightening and increasing the awareness on corrosion of metals and appropriate remedial measures. There has been overwhelming responses for participation from various sectors in the past 19 conferences held at Karaikudi, Kolkata, Bengaluru, Mumbai, Chennai, New Delhi, Hyderabad, Kochi, Goa, Madurai, Vadodara, Visakhapatnam, Mangalore and Bhubaneswar.

CSIR-Central Electrochemical Research Institute (CSIR-CECRI)

CSIR-Central Electrochemical Research Institute (CSIR-CECRI) is one of the pioneer research organisations belonging to CSIR and is the largest electrochemical laboratory in the world, engaged in Research & Development in all the facets of electrochemical science and technology. CSIR-CECRI covers a gamut of fields including Corrosion & Material Protection, Electrochemical Power Sources, Electroplating & Metal Finishing, Materials Electrochemistry & Electro-organic, Electrodeics & Electrocatalysis and Process Engineering.

Important Dates:

Submission of abstracts : 30.09.2023

Submission of full text : 10.11.2023

Payment:

Registration fee can be paid by NEFT/RTGS:

Bank details:

Beneficiary : National Corrosion Council of India

Account Number : 530837171

Bank Name : Indian Bank – AC campus

IFSC CODE : IDIB000A008

Address : Alagappapuram, Karaikudi 630003
Tamil Nadu

Delegates are requested to send a scanned copy of the counterfoil to: **nccikkdi@gmail.com** after depositing registration fee to the above NCCI account.

CSIR-CECRI assists Indian industries by conducting surveys and undertaking sponsored and consultancy projects. The institute also conducts short-term refresher courses for the benefit of the industry and academia through skill development programmes. As part of its human resource development programme, CSIR-CECRI runs Anna University's B.Tech. course in Chemical & Electrochemical Engineering as well as Ph.D. course under Academy of Scientific and Innovative Research (AcSIR). CSIR-CECRI is equipped with an excellent library as well as the state-of-the-art analytical and characterization facilities. CSIR-CECRI is alive to societal obligations and participates in the activities such as “entrepreneur development” and CSIR's youth development programme. CSIR-CECRI is a recipient of several prestigious awards and recognitions.



GAIL (India) Ltd., New Delhi

Mission: *“Enhancing quality of life through clean energy and beyond”.*

Vision : *“Be the leader in natural gas value-chain and beyond, with global presence, creating value for stakeholders with environmental responsibility”.*

GAIL (India) Ltd. was incorporated in August, 1984 as a Central Public Sector Undertaking (PSU) under the Ministry of Petroleum & Natural Gas (MoP&NG), with the mission of “accelerating and optimizing the effective and economic use of Natural Gas and its fractions for the benefit of the national economy”.

GAIL's primary business consist of transmission and marketing of Natural Gas. Along with this, GAIL is also involved in transmission of LPG, manufacturing of Petrochemicals and Liquid Hydrocarbon. GAIL has grown organically by setting up a large network of Natural Gas pipelines of ~15,400 km; two LPG Pipeline systems of ~2030 km; five Gas Processing plants for production of LPG and other liquid hydrocarbons with a combined production capacity of around 1.4 MMTPA and a gas based integrated petrochemical plant of capacity 810 KTPA of polymer. GAIL is co-promoter of two other petrochemical projects including 280 KTPA Brahmaputra Cracker and Polymer Limited (BCPL) Complex in Assam and 1.4 MMTPA ONGC Petro-additions Limited (OPaL) project in Gujarat. Recently, GAIL has got the NCLT nod to acquire JBF Petrochemicals Ltd. of 1.25 MMTPA capacity Purified Terephthalic Acid (PTA) in Mangalore. Petronet LNG (a JV of GAIL) operates two LNG regasification terminals at Dahej & Kochi. GAIL is also the promoter of Konkan LNG Limited which operates LNG regasification terminal at Dhabol with design capacity of 5 MMTPA. Further GAIL has 14.72% equity stake in Ramagundam Fertilizer and Chemicals Ltd. (RFCL). GAIL is also in the process of setting up of a Coal Gasification based Fertilizer plant through a JV- Talcher Fertilizer Ltd. (TFL) formed with Coal India Ltd. (CIL), Rashtriya Chemicals & Fertilizers Ltd. (RCF). GAIL is a pioneer in city gas distribution (CGD) business in India. It has presence in 67 Geographical areas across India.

GAIL has JVs and wholly owned subsidiaries in India for its CGD business. Further, GAIL has overseas presence in USA, Singapore, Myanmar, China, and Egypt. GAIL has opened offices in Singapore, Yangon, Houston and

Moscow (Bharat Energy Office). GAIL has another wholly-owned subsidiary company viz. GAIL Global (Singapore) Pte. Ltd., for trading in LNG and for undertaking overseas investments.

GAIL has participating interest in 13 blocks of which 10 blocks are in India, 2 in Myanmar and 1 shale gas JV in Eagle Ford Basin, Texas, USA.

GAIL has renewable portfolio of ~132 MW including ~118 MW of wind and ~14 MW of solar energy. In addition, GAIL is exploring various business opportunities in the Production and Marketing of Compressed Bio Gas (CBG) from organic waste. Further, GAIL is setting up an electrolyser unit of 10 MW capacity to produce 4.3 TPD of Green Hydrogen, at Vijaipur in state of Madhya Pradesh.

With its existing LNG portfolio and diversity in supply sources and price indices, GAIL is well poised to cater to the needs of its customers. While, additional gas sourcing opportunities are being scouted to further consolidate the gas portfolio and strengthen the core business so as to actively contribute towards the national goal of a ‘gas-based’ economy. GAIL has also embarked upon alternate energies like green hydrogen, renewables and bio-fuels projects which are of national importance and would likely provide a transition to the future. To support the GOI initiative in “National Hydrogen Mission” for promotion of usage of green hydrogen, GAIL has carried out a pilot project on injection of hydrogen in CGD network and evaluation of its impact on Natural gas pipeline in association with EIL and IIT-Kanpur. The hydrogen blended natural gas is supplied to Avantika Gas Ltd, one of GAIL's joint venture with HPCL, for retailing of CNG to automobiles and supplying piped natural gas (PNG) to households. Currently, 5% of hydrogen is being blended in Natural Gas. GAIL is also in the process of setting up of a 05 TPD CBG plant at Ranchi which will process 150 TPD of Municipal Solid Waste (MSW) and 15 TPD of cow dung.



About the Venue (Jenneys Residency, Coimbatore)

Coimbatore is the third largest city and one of the most industrialized cities in Tamil Nadu, known as the textile capital or the Manchester of the South India. In the rain shadow region of the Western Ghats, Coimbatore enjoys a very pleasant climate all the year round. Coimbatore is also famous for foundry and automobile industries, manufacturing of textile industry equipment's, spares, motor pump sets, wet grinders and varied engineering goods and services. The major tourist places in and around Coimbatore are Ooty (Udhagamandalam), Mettupalayam, Isha Yoga Centre, Maruthamalai Temple.

Jenneys Residency is situated on the Avinashi road and offering a convenient stay for guest.

The venue will be reached by:

Air : Coimbatore International Airport - 2.5 km

Road : Bus stand - Gandhipuram (8.5 km) and Singanallur (4.5 km)

Rail : Coimbatore railway station - 8.0 km



Supporters of 19th National Conference on Corrosion Control



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