7th One-day workshop on Corrosion and its Control in Concrete Structures (C3S)

9 to 4:30 pm, **September 24, 2024 (Tuesday)**
E-Block, IIT Madras Research Park, Chennai, India

Organized by
IIT MADRAS

About the C3S workshop series: Many major concrete structures are designed for a service life of 100+ years. However, many are corroding much earlier and not able to meet the design/service life requirements due to chloride-attack and carbonation. These can be avoided by using appropriate use of material systems. Moreover, most repairs are excessively focused on structural strengthening aspects and neglect the durability of repairs. This leads to short-lived and frequent repairs, creating huge economic burden (about 2% or more of GDP in managing the corrosion in concrete infrastructure). If we do not take adequate measures in this regard, then we will have to face expensive repair works on the large number of concrete structures that are being built now. To create awareness about this, the Dept. of Civil Engineering at IIT Madras has been organizing the C3S workshops since 2016. This is the 7th C3S workshop, which is formulated to educate engineers about corrosion mechanisms and how to design for durability or service life and combat corrosion of steel in concrete structures with a blend of both theoretical and practical aspects.

Speakers

Dr. Deepak Kamde
INSA Toulouse, France
Workshop overview & Corrosion in concrete structures

Prof. Carmen Andrade
CIMNE/UPC, Spain
Duracrete and fib models & input parameters for service life design

Prof. Piyush Chaunsali
IIT Madras, Chennai, India
Performance specifications for concrete structures

Prof. Robert Melchers
Univ. of Newcastle, Australia
Importance of concrete quality and placement on minimizing corrosion of steel

Prof. Mark Alexander
Univ. of Cape Town, South Africa
Practical corrosion control: Effect of exposure conditions, material selection, and surface treatments

Prof. Shwetha Goyal
Thapar Inst., Patiala, India
Evolution & performance of corrosion inhibitors

Mr. Biswajit Ghosh
Tata Steel Limited, India
Corrosion resistant steel bars for concrete structures

Mr. Vishal Seth
Jindal Stainless Limited, India
Ferritic stainless steel bars for concrete structures

Prof. Burkan Isgor
Oregon State Univ., USA
Technologies for corrosion measurements with and without connection to steel

Dr. Gino Ebell
BAM, Berlin, Germany
Performance & failure mechanisms of galvanic anodes

Mr. Dhruvesh Shah
Vector Corrosion, India
Optimized condition assessment and durable repairs

Prof. Radhakrishna G. Pillai
IIT Madras, Chennai, India
Discussion & Closing

Registration Fee (including taxes)

On or before September 20, 2024 Spot registration is not allowed	Indian (INR)
	4000

Scan this QR code to register

See next page for schedule …

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Tentative Programme Schedule

09:00 – 09:30 am	Welcome address & Corrosion in concrete structures	Dr. Deepak Kamde, INSA Toulouse, France
09:30 – 10:00 am	Duracrete and fib models & input parameters for service life design	Prof. Carmen Andrade, CIMNE/UPC, Spain
10:00 – 10:30 am	Performance specifications for concrete structures	Prof. Piyush Chaunsali, IIT Madras, India
10:30 – 11:00 am	Importance of concrete quality and placement on minimizing corrosion of steel	Prof. Robert Melchers, Univ. of Newcastle, Australia
11:00 – 11:30 pm	**Tea/coffee break**	
11:30 – 12:00 pm	Practical corrosion control: Influence of exposure conditions, material selection, and surface treatments	Prof. Mark Alexander, Univ. of Cape Town, South Africa & IIT Madras, India
12:00 – 12:20 pm	Corrosion resistant steel bars for concrete structures	Mr. Biswajit Ghosh, Tata Steel, India
12:20 – 12:40 pm	Ferritic stainless steel bars for concrete structures	Mr. Vishal Seth, Jindal Stainless Limited, India
12:40 – 01:00 pm	**Discussion**	Prof. Radhakrishna G. Pillai, Shweta Goyal, & Deepak Kamde
01:00 – 02:00 pm	**Lunch break**	
02:00 – 02:30 pm	Field corrosion measurements without connection to steel	Prof. Burkan Isgor, Oregon State Univ., USA
02:30 – 03:00 pm	Performance & failure mechanisms of galvanic anodes	Dr. Gino Ebell, BAM, Berlin, Germany
03:00 – 03:30 pm	**Tea/coffee break**	
03:30 – 03:50 pm	Optimized condition assessment and durable repairs	Mr. Dhruvesh Shah, Vector Corrosion, India
03:50 – 04:10 pm	Evolution & performance of corrosion inhibitors	Prof. Shwetha Goyal, Thapar Inst., India
04:10 – 04:30 pm	**Discussion & Closing**	Prof. Radhakrishna G. Pillai, IIT Madras, India

Coordinators

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For queries, please email to consec@civil.iitm.ac.in

BTCM Building Technology, Construction Materials & Management

TLC2 Centre of Excellence on Technologies for Low-Carbon & Lean Construction

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