

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA,
SURATHKAL, MANGALORE – 575025

International Conference on



Climate Resilient Construction and Building Materials

3-5 March, 2023

Call for Papers and Participation



Organised by

Department of Civil Engineering

National Institute of Technology Karnataka, Surathkal,
Mangalore - 575 025 Karnataka, India.

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In association with

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About NITK

National Institute of Technology Karnataka (NITK) Surathkal is located in Mangalore (also called Mangaluru) City, Karnataka State, India. NITK is a centrally funded technical institute and was established in the year 1960. NITK is a premier institution engaged in imparting quality technical education and providing support to research and development activities. NITK is recognized as an institute of national importance by an act of Indian parliament. NITK has carved a niche for itself among the best technical institutions in India. NITK has been consistently ranked among the top ten technical institutions in the country. Today, the institute offers 9 B.Tech, 27 post graduate and doctoral programmes in all its 14 departments and is making significant advances in R&D and outreach activities. NITK has earned a good reputation as a centre for academic, research and industrial consulting activities and it is probably the only institution in the country which can boast of its own beach.

About the Department

The Department of Civil Engineering is the one of the oldest departments of this institute, which established in the year 1960. The department presently offers one B.Tech, six post graduate and doctoral programmes in various disciplines. The department has well experienced faculty, skilled technical staff and well-equipped laboratories. It is recognised QIP centre for training of faculty from other engineering colleges and polytechnics. The department has been always in the forefront in taking up R&D initiatives and industrial consultancy assignments.

About the Conference

In developing sector like construction industry, different materials are used for the infrastructure development. For example, Concrete is the most widely used building material in the world because of its strength, durability and it is favourably used in nearly all type of construction. Reinforced concrete structures can

deteriorate in a rapid rate due to exposure to aggressive environment, issues related to poor workmanship, limited availability of good quality materials and lack of awareness on good construction practices. This is exacerbated by climate change and associated increase in deterioration mechanisms, which is not accounted in the design of reinforced concrete structures. The World Bank climate change impact study suggests that under 4°C warming, the coastal regions are projected to shift to new, high-temperature climatic regimes, sea-level rise and storm surges that will lead to salt water intrusion in the coastal areas and increased carbon dioxide in the atmosphere and will collectively have a damaging effect on the performance of concrete structures. To construct durable and resilient concrete structures which are capable of withstanding the aggressive environment for the intended design life, there is a need to study the local factors that influence concrete durability. The major factors that contribute to premature deterioration of concrete structures in aggressive environments and factors related to the development of cost-effective concrete mix design to enhance the durability of future structures and recommendations on improvements in construction practice and workmanship are necessary to improve the service life of structures.

Considering all these, to develop a sustainable, climate resilient structures with improved service life, there is a great need to the academicians, practitioners and technologists to consider major factors that contribute to premature deterioration of concrete structures in aggressive environments and factors related to the development of cost effective concrete mix design to enhance the durability of future structures with recommendations on improvements in construction practice and workmanship

Call for papers

Prospective authors are hereby invited to send abstracts not more than 250 words to "crcbm.nitk@gmail.com". Abstracts will be reviewed by the technical committee and the acceptance will be notified through mail.

Accepted authors need to submit full length paper of maximum 8 pages manuscript soft copy (in MS word document) and should be directly sent to "crcbm.nitk@gmail.com". The paper should be strictly well within 8 pages fully inclusive of text, illustration and references. The manuscript will be peer reviewed and authors will be informed with the comments/suggestions through the review process for the subsequent submissions.

Conference participants will be provided soft copy of the conference proceedings containing all accepted full length papers. All papers will be published in the form of book chapter in Springer publications.

Important dates for paper

Submission deadline for abstracts : January 25, 2023
Acceptance of abstracts : January 31, 2023
Submission of Full-length paper : February 10, 2023
Final submission after review : February 20, 2023

Poster Presentation Competition

Details of the poster presentation: A poster presentation competition is being planned for the interested participants who wish to participate on the above theme of the conference.

Guidelines to poster presentation

- Poster should be prepared in flex chart
- Poster size should be 3 x 4 feet.
- Poster should be displayed one hour before schedule time.
- Presenting author should be present throughout the poster session

The best three posters would be decided by the experts and will be awarded.

Important dates for poster presentation

Submission deadline for abstracts : January 25, 2023
Acceptance of abstracts : January 31, 2023
Submission of Extended abstract : February 15, 2023

Themes for paper/poster presentation

- New generation concretes and building materials
- Alternate, eco-friendly and climate resilient construction and building materials.

- Microstructure and durability of construction and building materials.
- Energy efficiency in construction and building materials.
- Advance characterization techniques for construction and building materials.
- Sustainability in construction project management and materials.

Conference committee

Chief patron

Prof. Prasad Krishna
Director (Additional-charge), NITK Surathkal.

Patron

Prof. B.R. Jayalekshmi
Head of Civil Engineering Department, NITK Surathkal.

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Mr. Devendra Kumar Pandey, UltraTech RMC
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Organizing Chair

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Organizing Co-Chairs

1. Dr. Leon Black
Professor of Infrastructure Materials
University of Leeds, U.K.
2. Dr. Salim Barbhuiya
Senior Lecturer, School of Architecture
University of East London, U.K.

Registration fee

Students (B.Tech/M.Tech/Ph.D) : ₹ 2000/-
Faculty/ Academician : ₹ 4000/-
Industry/ Research Organizations : ₹ 6000/-

All participants can remit the required registration fee through DD drawn in favour of Director, NITK Surathkal, payable at Surathkal or directly cash can be paid at the time of registration.

Accommodation

Out station participants can be provided accommodation in the institute guest houses (limited accommodation on first-cum-first serve basis) inside the campus on direct payment. The Registration fee does not include lodging and boarding.

Student co-ordinators

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