

## *Preamble*

During the last several decades, a lot of civil engineering structures such as buildings, bridges, roads, etc. have been constructed in our country. In most of these structures, concrete and steel have been extensively used. With passage of time, some of these structures suffered serious problems due to various reasons such as improper selection of materials, erroneous design & detailing, poor construction practices, lack of quality supervision during construction, exposure to extreme loading conditions etc. Therefore, repair and rehabilitation of civil engineering structures have become one of the fastest growing segments of construction industry. From buildings and bridges, to tanks and pools, to chemical and automotive, to retaining walls and highways, the demand of repair work is endless.

Further, many older structures lack sufficient seismic resistance and ductility to satisfy current engineering standards. In some cases, the lateral load resisting system is incomplete and these issues may lead to increase in seismic vulnerability of older structures requiring advanced materials and methodology of retrofitting.

The aim of the National Workshop is to share the experiences of experts, researchers and professionals working in this area with focus on good construction practices and techniques. The endeavour of this workshop is also to discuss case studies in conjunction with causes of failure and pinpointed remedial measures stressing economic aspects as well as long term durability and serviceability.

## *Themes*

The workshop encompasses following themes:

- Causes of distresses and failures
- Health assessment & monitoring of structures
- Water proofing materials/systems
- Testing and evaluation of repair systems
- Advances in repair methodologies/practices
- FRP wrapping and its design

- Post fire investigations and rehabilitations
- Durability & serviceability of repaired structure
- Quality control & assurance in repair work
- Case studies

## *Faculty*

The experts from various organizations such as CSIR-Central Building Research Institute, CSIR - Central Road Research Institute, CSIR - Structural Engineering Research Centre, Indian Institutes of Technology, Central Public Works Department, Executing Agencies and Industries dealing in the areas of repair & rehabilitations will deliver lectures with case studies during Technical Sessions.

## *Dates and Venue*

The workshop will be held during September 22-23, 2016 at CSIR-CBRI, Roorkee.

## *Who should Participate*

The participation in workshop is open to all the organizations / agencies engaged in construction, maintenance, repair & rehabilitation, research & development, consultancy, manufacturers of repair materials etc. Participation by government officials, researchers, practicing engineers, architects, builders, policy makers and students are especially solicited. Participants will be issued certificates for attending the National Workshop.

## *Registration Fee*

The participants are requested to register themselves by giving their personal details along with registration fee by Demand Draft in favour of **Director, CSIR-CBRI, Roorkee** payable at Roorkee. The registration fee includes registration material, proceedings, lunches and session teas during National Workshop. The fee structure for the registration of delegates is given below:

Category	Fee for Indian Delegates (₹)	Fee for Foreign Delegates (US\$)
Delegate	5000/-	250
Delegate (Student)	2000/-	100
Accompanying person	2000/-	100

## *Accommodation*

Limited accommodation shall be made available in Guest Houses on request on first come first serve basis.

## *Technical Exhibition*

The exhibit will include display on newer materials, products, technologies, achievements of Institutions/ Firm etc. The interested agencies may book their space in advance (on first-come-first serve basis) on payment of ` 25000/- for display space of 3m x 3m or contact the Organising Secretary for more space required for display.

## *About CSIR-CBRI*

The CSIR-Central Building Research Institute, Roorkee, India, has been engaged in generating, cultivating and promoting building science and technology in the service of the country. Since its inception in 1947, the Institute has been assisting the building construction and building material industries in finding timely, appropriate and economical solutions to the problems of materials, rural and urban housing, energy conservation, energy efficiency, fire hazards, structural and foundation problems and disaster mitigation. The institute maintains international linkages with bodies like CIB, Netherlands; TWAS, Italy; BRE, U.K.; ASTM, U.S.A.; CSIRO, Australia; RILEM, France; BRS, Canada, UNCHS, Kenya and a few prestigious universities of the world. At the national level, the Institute has close interaction with BMTPC, HUDCO, DST, Ministry of Urban and Rural Development, Housing Boards and Societies of the State Government, Engineering and Academic Institutions, Construction and Building Materials Industries.

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The interested Institutions/Organisations are requested to sponsor the Workshop for their wide publicity as per following details:

Category	Sponsorship Fee (₹)	Entitlements	
		Display Space	Free Delegates
Platinum Sponsor	1,50,000/-	Yes	4
Gold Sponsor	1,00,000/-	Yes	3
Co-Sponsor	50,000/-	Yes	2
Supporter	25,000/-	No	1

## Workshop Secretariat

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## National Workshop

on

# Advances in Repair and Rehabilitation of Concrete Structures

September 22-23, 2016

Organised by



CSIR-Central Building Research Institute  
Roorkee - 247 667, (Uttarakhand)

