

PRESS RELEASE

IIT Hyderabad to host International Conference on Retrofitting of Structures

It'll bring together leading Academic scientists, researchers, students and practicing engineers from all over the world to exchange expertise, research outcomes on aspects of structural health assessment

HYDERABAD, 20th January 2020: Indian Institute of Technology Hyderabad will be hosting an International Conference on <u>'Condition Assessment, Rehabilitation and Retrofitting of Structures '(CARRS) 2020</u> from 14th to 16th December 2020. It is being organized jointly with <u>Association of Structural Rehabilitation</u> (ASTR).

CARRS 2020 will be the first international conference to be held in India, covering the fields of structural assessment, repair and rehabilitation of structures. It will bring together leading academic scientists, researchers, students and practicing engineers from all over the world to exchange their expertise, research outcomes on aspects of structural health assessment and strengthening.

It will also provide a multidisciplinary platform for the research community, practicing engineers, contractors, academicians and government agencies to share latest advances, trends, and practical challenges in fields of repair and rehabilitation of civil infrastructure. The civil infrastructure industry is under constant pressure to upgrade existing structures, which have deteriorated because of steel rebar corrosion and concrete spalling. In India, more than 6,000 bridges are at the end of their life and require immediate strengthening.

Speaking about the importance of this Conference, Dr. S. Suriya Prakash, Conference Secretary and Associate Professor, Department of Civil Engineering, IIT Hyderabad, said, "Around 17,000 Indian railway bridges need immediate strengthening. Among the outcomes we expect from this conference is developing a strategic partnership between the research community and practicing engineers to work on ready-to-use technologies for a faster and economic strengthening of civil infrastructure. This Conference is likely to see 500 participants from all over the world. About three hundred research papers will be presented in several session over a period of three days."

IMPORTANT DATES	
Abstract submission deadline	31st January 2020
Full paper submission deadline	31st May 2020
Conference Dates	14-16th December, 2020



Moreover, this conference will also help gather and assess already available information related to retrofitting and rehabilitation of civil infrastructure. Themes of the conference include (i) Structural Condition Assessment and Health Monitoring, (ii) Repair, Rehabilitation and Retrofitting of Structures, (iii) Strengthening using FRP Composites, (iv) Innovative Repair Materials and (v) case studies in structural strengthening

The targeted outcomes from this Conference include:

- A shared understanding of the current design methodologies and discussion of new design guidelines.
- to promote the development and use of innovative materials and methodologies for the rehabilitation and retrofit of structures.
- Improving the knowledge gap in conditional assessment and strengthening of civil infrastructures in India.

Key information and follow-up products that will be produced and disseminated during and after the conference include :

- Conference report
- Press releases
- Web publications & Conference proceedings

Civil infrastructure includes but not limited to heritage structures, residential buildings, office/factory/commercial buildings, lifelines such as roads, rail, and hospitals. Structures, when exposed to harsh environmental conditions, lose their aesthetics as well as strength. New structures constructed using reinforced concrete or fully steel can also have several performance issues.

Structural engineering faculty at IIT Hyderabad are world renowned experts working in the areas related to the theme of the conference. The advanced facilities in the Institute cater to the research needs of the areas covering, but not limited to, structural assessment, repair and rehabilitation of structures.

Researchers at IITH have developed innovative hybrid fibre reinforced polymer-based schemes for strengthening reinforced concrete elements subjected to varying levels of bending and axial loads. Successful test programs also were conducted to develop technologies for the use of inorganic bonding materials in the strengthening of structures. In the areas of structural health monitoring, substantial research has been carried out on the usage of piezoelectric and acoustic emission sensors. Various cutting-edge research papers have been published by researchers of IIT Hyderabad in top-notch research journals.

About <u>IIT Hyderabad</u>



Indian Institute of Technology Hyderabad

Indian Institute of Technology Hyderabad (IITH) is one of the six new Indian Institutes of Technology established by the Government of India in 2008. In a short span of less than 10 years, the institute built on an imposing 570-acre campus and has been ranked among the top ten institutes for four consecutive years in the <u>National Institute Ranking Framework (NIRF)</u> released by the Ministry of Human Resource Development (MHRD), Government of India. The Institute was also ranked #10 in the first edition of <u>Atal Ranking of Institutions on Innovation Achievements</u> (ARIIA) introduced this year by MHRD to systematically rank all major higher educational institutions and universities in India on indicators related to 'Innovation and Entrepreneurship Development' among students and faculties.

IIT Hyderabad has close to 210 full-time faculty, 2,855 students of whom 20 per cent are women, nearly 200 state-of-the-art laboratories and five research and entrepreneurship centers. The Institute has a strong research focus with more than Rs. 500 crore of sanctioned research funding while Ph.D. scholars account for about 30 per cent of total student strength. IITH students and faculty are at the forefront of innovation with more than 1,500 research publications and patent disclosures, 300 sponsored/consultancy projects and 50 industry collaborations. IITH has MoUs with 50 universities in the U.S., Japan, Australia, Taiwan and Europe. IITH has been pioneering change in pedagogy with fractal academic programs that atomizes course modules, encourage interdisciplinary learning spanning innovative technology, fundamental science, liberal arts and creative arts like photography, theatre and painting.

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