

About IIT Kharagpur



Kharagpur - a dusty town tucked away in the eastern corner of India, famous until 1950 as home to the longest railway platform in the world - became the nursery where the seed of the IIT system was planted in 1951. IIT Kharagpur started its journey in the old Hijli Detention Camp in Eastern India, where some of the country's great freedom fighters toiled and sacrificed their lives for India's independence. Spurred by the success of IIT Kharagpur, four younger IITs sprouted around the country in the two following decades, and from these five came thousands of IITians, the brand ambassadors of modern India. It was the success of this one institution at Kharagpur that wrote India's technological odyssey.

The Institute takes pride in its relentless effort to provide the best platform for both education as well as research in the areas of science and technology, infrastructure designs, entrepreneurship, law, management, and medical science and technology. IIT Kharagpur is not just the place to study technology, it is the place where students are taught to dream about the future of technology and be innovative, making differences enough to change the world.

Important Dates

18 th May	Beginning of Submission of Extended Abstract
10 th July	Last Date of Submission of Extended Abstract
31 st July	Notification of Acceptance
14 th August	Last Date of Submission of Full Length Paper
24 th August	Last Date of Conference Registration
4 th – 6 th September	Conference Dates

Publication

Selected papers will be published in a special book volume with an ISBN number through an internationally recognized publisher

Registration Fees

INR 1200* for Academia Participants from SAARC Countries
INR 3600* for Industry Participants
USD 100* for Participants from Non SAARC Countries
*Inclusive of Goods and Services Tax (GST)

Mode of Presentation

Presentation will be online through popular online platform, which will be informed in due course.

Conference Website

Use the link: <https://www.icracem.org> for more details

Contact Us

Prof. Damodar Maity, Conference Chair -- ICRACEM,
Department of Civil Engineering
Indian Institute of Technology Kharagpur

Email: info@icracem.org



ICRACEM

1st Online International Conference on Recent Advances in Computational and Experimental Mechanics 2020

4th – 6th September 2020

Indian Institute of Technology Kharagpur, India



An Online Conference Jointly Organized by

Department of Civil Engineering,

Department of Aerospace
Engineering

and

Department of Ocean Engineering
& Naval Architecture

Overview

Mechanics, one of the oldest field of science, has been ever-changing. What began initially as the study of celestial bodies, has gone on to explain several phenomena around us, be it the flow of water in a pipe or the response of a bridge under heavy winds, etc. The applicability of mechanics – from nanoscales to astronomical scales – bears testament to the beauty of mechanics and its interdisciplinary nature.

The 1st Online International Conference on Recent Advances in Computational and Experimental Mechanics celebrates the power of mechanics, irrespective of the scale and discipline of problem. The conference, designed under the new concept of “**Work from Home through digital platforms**”, has the aim of bringing together the leading researchers, academicians, practicing engineers and young students from around the world for interacting and exchanging ideas concomitant with new age mechanics. The entire experience, including discussions on the recent developments in mechanics, will occur online. The mode of presentation will be through a popular online platform, which will be intimated to the participants in due course.

ICRACEM2020 will focus on theoretical, computational and experimental aspects of Mechanics. In order to foster creativity, ICRACEM2020 will award the most promising young researchers, and selected conference papers will be published as a special book volume with an ISBN through internationally recognized publisher.

All submissions to this conference will be peer reviewed, and participants must register by the deadline for presenting their work. This online conference will provide an exciting, flexible and unique opportunity to participants. The organizing committee will try to ensure to have a memorable experience during the online conference to all the participants.

Sponsorship

ICRACEM provides a variety of sponsorship options designed to maximize your organization's visibility so that you may stand apart in the crowd:

1. Diamond Sponsor: INR 1,00,000
2. Gold Sponsor: INR 60,000
3. Silver Sponsor: INR 40,000

A special business session will be reserved for the sponsors in addition to the space allocated for advertisement on the conference web site. Sponsors' name and logo will feature in the main program and in e-proceeding.

Those interested should contact conference chair, Prof. D. Maity (dmaity@civil.iitkgp.ac.in) for more details.

Themes

ADVANCED MECHANICS OF MATERIALS (AM):

Bio-inspired materials; Constitutive Modelling of Materials; Fracture Mechanics; Mechanics of Adhesion, Tribology and Wear; Mechanics of Composite Materials; Mechanics of Multifunctional materials; Multiscale modelling of Materials; Phase transformations in materials; Plasticity and Creep in materials

EXPERIMENTAL MECHANICS (EM):

Characterization of Advanced Materials; Damage Identification and Non-Destructive Evaluation; Experimental Fire Mechanics and Damage; Experimental Fluid Mechanics; Experimental Solid Mechanics; Measurement in Extreme Environments; Modal Testing and Dynamics; Experimental Hydraulics; Mechanism of Scour under steady and unsteady flows; Vibration Measurement and Control

FLUID MECHANICS (FM)

Fluid Mechanics, Computational Fluid Dynamics; Fluid-Structure Interaction; Free surface, moving boundary and pipe flow; Hydrodynamics; Multiphase flows; Propulsion; Internal Flow Physics; Turbulence Modelling; Wave mechanics; Flow through porous media; Shock-boundary layer interactions; Sediment transport; Wave-Structure Interaction; Reduced-order models; Turbo-Machinery

INTERDISCIPLINARY MECHANICS (IM):

Applications of Machine Learning and Artificial Intelligence in Mechanics; Biomechanics; Computational Materials Science; Multiphysics & multiscale problems in mechanics; Nano-mechanics and Molecular Dynamics; Soft Computing Tools in Structural and Fluid Mechanics; Transport Phenomena

SOLID MECHANICS (SM):

Computational Modelling of Extreme Events; Mechanical Modelling of Robots; Mechanics and Design of cellular materials; Mechanics of Soft Materials; Mechanics of Thin-Film and Multi-Layer Structures; Meshfree and Particle Based Formulations in Continuum Mechanics; Multi-Scale Computations in Solid Mechanics, and Materials; Multiscale mechanics of brittle and ductile materials; Topology and Shape Optimization techniques

VIBRATION AND CONTROL (VC):

Acoustics including aero-acoustics and wave propagation; Aerodynamics; Dynamics and Control in Micro/Nano Engineering; Dynamic Instability & Buckling; Flow-Induced Noise and Vibration; Inverse Problems in Mechanics and System Identification; Measurement and Analysis Techniques in Nonlinear Dynamic Systems; Multibody Dynamical Systems and Applications; Nonlinear Dynamics and Control; Stochastic Mechanics; Structural Dynamics and Earthquake Engineering; Structural Health Monitoring and Damage Assessment; Turbomachinery Noise; Vibrations of Continuous Systems;

Organizing Committee

Patron	Prof. V.K. Tewari, Director
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