Indian Structural Health Monitoing Society, ISHM

Nominations for Governing Council Members

Mr Ajay Kumar Sreerama

Director, Mantis Infra Solutions Private Limited, Hyderabad. Telangana

Ajay Kumar Sreerama (DIN: 07009331) is a director at Mantis Infra Solutions Private Limited**,** a Hyderabad-based infrastructure company incorporated on November 2, 2022. Mantis Infra Solutions focuses on building installation and structural-health-monitoring applications. In academic circles, Ajay Kumar Sreerama has contributed to research in real-time structural health monitoring using IoT and cloud services, as co-author of a paper that proposes a cost-efficient, scalable architecture for infrastructure safety. Public company-registry records indicate that Mantis Infra's registered address is in Saroornagar, Rangareddy, Telangana.

Ms. Janhavi Neelu Singh

Research Scholar

Department of Civil Engineering

IIT BHU

She is a research scholar at department of civil engineering, at IIT Banaras, working under the guidance of Prof Krishna Kant Pathank.

Dr. K Lakshmi

Senior Principal Scientist, CSIR-Structural Engineering Research Centre.

Hyderabad, Telangana

Dr K. Lakshmi is a Senior Principal Scientist at the CSIR Structural Engineering Research Centre (SERC), Chennai. She earned her PhD in Engineering Sciences from AcSIR (Academy of Scientific & Innovative Research), and holds an M.E in Structural Engineering (Bharathiar University) and a B.E in Civil Engineering. Her research focuses on structural health monitoring, structural dynamics, system identification, and data-driven damage detection in concrete and steel structures. She works on output-only damage identification techniques, optimization of sensor layouts, and condition assessment of bridges under varying environmental conditions. Over her career at CSIR-SERC, she has moved up from Scientist to Senior Principal Scientist and has published extensively on vibration-based damage diagnosis, signal reconstruction, and optimization for structural monitoring. serc.res.in Among her recognitions, she has won the *Ramaiah Best Paper Prize (2019)* for her work on crack localization from single-sensor measurements.

Prof. Krishna Kant Pathak

Professor

Department of Civil Engineering

IIT BHU

Dr. Krishna Kant Pathak is a Professor in the Department of Civil Engineering at IIT (BHU), Varanasi. His research specialization includes structural engineering, particularly continuum mechanics, structural analysis and design, structural shape optimization, finite element analysis, as well as building materials and construction. He did his B.Tech from KNIT Sultanpur, M.E (Structural Engineering) from MNNIT Allahabad, and earned his PhD in Solid Mechanics from IIT Delhi. Before joining IIT BHU, he worked as a scientist at CSIR-SERC / AMPRI. According to his academic profile, he has authored many publications (around 70+), and his Scopus / IRINS profile shows a strong research footprint in his fields of interest.

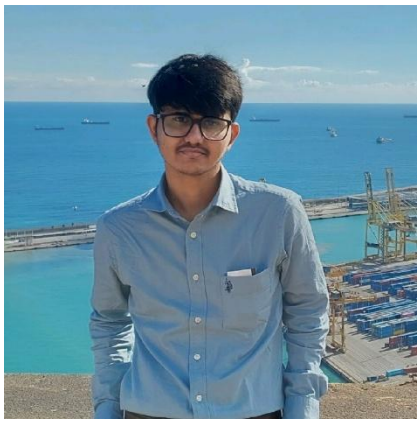
Dr. Rama Shanker

Professor

Department of Civil Engineering

MMNIT, Prayagraj.

Dr. Rama Shanker is a Professor in the Department of Civil Engineering at Motilal Nehru National Institute of Technology (MNNIT), Prayagraj (Allahabad). He did his PhD in Civil Engineering from IIT Delhi, with a thesis titled *"An Integrated Approach for Structural Health Monitoring."* His research interests include Structural Health Monitoring (SHM), soft computing, sensor systems for SHM, structural dynamics, and soil-structure interaction. At MNNIT, he teaches courses like SHM, steel structures, earthquake-resistant design, and computer-aided design. He serves as the in-charge of the Structural Health Monitoring Laboratory (since December 2024) and is also the Coordinator for NBA (National Board of Accreditation) for the Civil Engineering Department. Dr. Shanker is a life member of the Indian Concrete Institute and the Indian Structural Health Monitoring Society.



Mr. Raj Purohit Kiran

Research Scholar

Department of Civil Engineering

IIT Delhi

Dr. Raj Purohit Kiran is a research scholar in the Department of Civil Engineering, IIT Delhi. He works in Sahil Bansal's lab, focusing on topics such as finite element model updating, system identification, and structural health monitoring, utilizing a Bayesian framework for uncertainty quantification. He completed his B.Tech in Civil Engineering from NIT Rourkela.

Ms. Shipra Prakash

Research Scholar

Department of Civil Engineering

IIT Delhi

Ms Shipra Prakash is a PhD scholar (Entry No. 2020CEZ8317) in the Civil Engineering Department at IIT Delhi, working under Prof. Suresh Bhalla in the *Smart Structures & Dynamics Lab*. Her research topic is structural health monitoring using *self-sensing concrete sensors* combined with PZT transducers. She has previously completed an M.Tech at IIT Delhi, where she worked on *non-bonded piezo sensors for biomedical structural health monitoring*. Her PhD comprehensive exam was passed on 15 July 2022. Her work includes interdisciplinary applications, like evaluating bone electro-mechano gram (EMG) as a low-cost substitute for bone density testing (DEXA), indicating a crossover of structural sensing techniques into biomedical domains.

Dr. Sumedha Moharana

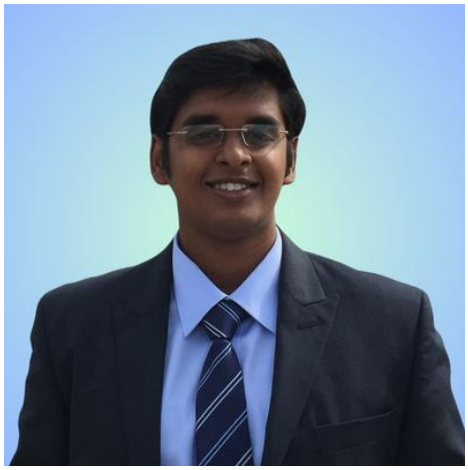
Associate Professor

School of Engineering

Shiv Nadar University

Delhi NCR

Dr. Sumedha Moharana is an Associate Professor in the School of Engineering, Shiv Nadar University. She earned her PhD in Civil Engineering from IIT Delhi in 2012. Her area of expertise lies in structural health monitoring (SHM) using piezoelectric impedance techniques**,** smart materials, and the modeling of piezo-structure interactions, including shear lag effects. She has worked on several projects funded by major agencies like DST, ISRO, and DRDO. Her research blends experimental mechanics, data-driven modeling and AI: for instance, she co-authored a paper that uses a hybrid CNN-LSTM model to predict electromechanical impedance signals for bond-strength monitoring. At Shiv Nadar University, her work also explores applications of SHM for heritage structures (in collaboration with ASI), aiming to use multimodal sensors to continuously monitor structural health and extend the lifespan of traditional buildings.



Dr. T. Jothi Saravanan

Assistant Professor

Department of Civil Engineering

IIT Bhuvneshwar

Dr. T. Jothi Saravanan is an Assistant Professor in the School of Infrastructure at IIT Bhubaneswar. He earned his PhD in Civil Engineering from the University of Tokyo in 2018. His research focuses on structural engineering, structural health monitoring (SHM), structural dynamics, smart materials, system identification, and machine-/deep-learning techniques (especially computer vision for damage detection). He has done post-doctoral work (JSPS fellowship) and has been recognized for his contributions to SHM; a lecture by him on computer vision-based SHM was organized by the Indian Structural Health Monitoring Society. According to his Google Scholar profile, he has over 700+ citations, showing a strong research impact.

Dr. Tushar Bansal

Assistant Professor,

Sharda University

Greater Noida, Uttar Pradesh

Dr. Tushar Bansal is an Assistant Professor in the Department of Civil Engineering at Sharda University in Greater Noida. He completed his PhD in Civil Engineering from Bennett University, with a thesis focused on *piezo-based structural health monitoring of concrete systems using machine learning*. His research expertise centers on structural health monitoring (SHM), non-destructive testing, and durability of concrete using embedded piezoelectric (PZT) sensors and electro-mechanical impedance (EMI) techniques, often combined with machine-learning models. He has published extensively in peer-reviewed journals on topics like corrosion monitoring in concrete, compressive strength prediction of blended cementitious systems, and durability under environmental and mechanical loading. He is also a technical member of several RILEM technical committees (TC-DCS, TC-OCM, TC-293-CCH, TC-281-CCC, TC-282-CCL, TC-289-DCM), reflecting his active involvement in the global concrete science community. His work bridges practical engineering applications (monitoring real

concrete structures) with advanced data-driven modeling, making important contributions to the field of smart infrastructure.

Dr. Varun Singh

Associate Professor,

Motilal Nehru National Institute of Technology

Prayagraj, Uttar Pradesh

Dr. Varun Singh is an Associate Professor in the Civil Engineering Department at Motilal Nehru National Institute of Technology (MNNIT), Prayagraj. His academic interests lie in Transportation Engineering**,** Intelligent Transportation Systems (ITS)**,** and GIS/geoinformatics applications for transportation. He holds a Ph.D. in Civil Engineering (focusing on ITS) and has worked on projects like *Groundwater System Modelling under Climate Change* (DST/SERB) as a Co-PI. He also delivers expert lectures on topics such as numerical methods, traffic congestion prediction, and geospatial modelling.