

ABOUT THE WORKSHOP

Structure health and condition evaluation has become an essential component of infrastructural life because of continuous degradation caused by nature or human acts. It preserves public safety while simultaneously saves money if properly maintained. Henceforth, poor maintenance of structures like commercial, public, and historical buildings will lead to severe damage or collapse. To overcome this problem there are ways to estimate building health, which includes destructive, non-destructive, and sensor-based analysis. The selection of inspection process and its execution within the specified time is always a challenge and requires highly skilled professionals. With the advancement of Internet of Things (IoT) and Artificial Intelligence (AI) integrated with Structural Engineering makes the prediction of structural behaviour effective and considerably accurate.

The primary goal of the workshop is to discuss the most recent advancements in the field of structural health assessment and monitoring (ASHA). The event also provides a venue for academics and industry to learn about new areas blended with computer science and civil engineering. The main motto of ASHA 2022 is to provide real-time experience on analysis of vision and vibration data with the help of programming to make engineers future ready.

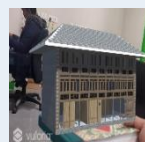
ABOUT MAHINDRA UNIVERSITY

Mahindra University signifies Global Thinkers and Engaged Leaders. With the core intent of establishing one of the best engineering colleges in India and beyond, Mahindra University École Centrale School of Engineering (MU) was born out of a collaboration between two giants: Mahindra Group - a leader of the industrial sector in India, and École Centrale Paris - a 180-year-old institute of eminence, instrumental in the progress of technology. Having evolved from such illustrious parentage, MU aims to reach the pinnacle of excellence in engineering education by offering industry-aligned undergraduate B.Tech courses that are globally relevant.

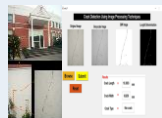
ABOUT CSIS

Center for Sustainable Infrastructure and Systems (CSIS) is working on sustainable Infrastructure which is very crucial for any nations development by considering Environment, Economy and Societal Safety as the primary pillars. CSIS has taken giant leap by providing the interdisciplinary solutions to attain the sustainable goals by blending Structural Engineering with Artificial Intelligence (AI), Cloud computing, Augmented Reality and Virtual Reality. CSIS team has inspected more than 150 concrete, steel bridges and Heritage Structures with the collaboration of Industry. Currently using the state-of-the-art technology, the research team is carrying the live monitoring and performing dynamic analysis to assess the current condition and predict the future structural behaviour. Developed in-house IoT based web application to retrieve and handle the continuously streamed data and also analysis, prediction is carried out on tailored data.

REAL-TIME PROJECTS



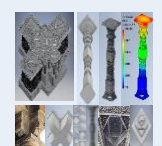
Digi-Encyclopedia of Indian Traditional Housing using AR



Product Development



Structural Health Assessment & Monitoring (SHA&M)



3D Modeling and Conservation of Heritage Structures

PROGRAM SCHEDULE

Day -1 (30th May 2022)

L1 : Need For SHA&M
 L2 : Role of Technology in SHA&M
 P1 : SHA Using NDT
 P2 : Python Programing

Day - 2 (31st May 2022)

L3 : Science Behind Structural Damages
 L4 : Vision Based - Neural Networks
 P3 : Vision Based Analysis – Python
 P4 : Vision Based Analysis – Tools

Day -3 (1st June 2022)

L5 : Structural Dynamics in SHM
 L6 : Vibration based - Sensors
 P5 : Modal Analysis of Cantilever beam using sensors
 P6 : Vibration based Analysis – Python

Day - 4 (2nd June 2022)

L6 : Case Studies - Bridges
 L7 : Case Studies - Buildings
 P6 : Live Monitoring
 P7 : Live bridge Data Analysis

Day - 5 (3rd June 2022)

Capstone Project on Real-Time Vision & Vibration Data

*L = Lecture, *P = Practical/Programming

COURSE INSTRUCTORS*

Prof. Venkata Dilip Kumar Pasupuleti
 Prof. Prafulla Kalapatapu

Mr. Rakesh Katam
 Mr. Sairam Neridu
 Mr. Govardhan Polepally

**And invited speakers from India, Abroad & Industry*

REGISTRATION FEE

(Includes Accommodation, Food and Course Material)

Fee Structure:	Student	–	Rs 2500/-
	Faculty	–	Rs 3500/-
	Industry	–	Rs 5000/-

Account Details

Name of Account : **Mahindra University**
 Bank Account no : **404101000071**
 Bank Name : **ICICI Bank**
 Branch : **Tech Mahindra, Bahdaurpally**
 IFSC Code : **ICIC0004041**

Contact Details

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 9059620623 - Mr. Govardhan Polepally
 9652869470 - Mr. Sairam Neridu
 9014685576 - Mr. Rakesh Katam

Last Date For Registration
15th May 2022

[Scan & Register](#)



SCHEDULE

9.30 AM - 11.00 AM	11.00 AM - 11.30 AM	11.30 AM - 01.00 PM	01.00 PM - 02.00 PM	02.00 PM - 03.30 PM	03.30 PM - 04.00 PM	04.00 PM - 05.30 PM
Lecture	Tea Break	Lecture	Lunch	Practical	Tea Break	Practical

Organized by

Center for Sustainable Infrastructure and Systems

École Centrale School of Engineering, Hyderabad – 500043

MAHINDRA UNIVERSITY

<https://www.mahindrauniversity.edu.in/>

