

## **A Webinar on ‘Free Standing Staircase- Causes Of Distress And Repair’, on 17<sup>th</sup> July, 2021**

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A webinar on ‘Free Standing Staircase- Causes Of Distress And Repair’ was organized by the Department of Civil Engineering, MVJCE, on 17<sup>th</sup> July 2021, at 10:30 am through WebEx. Almost 120 students and faculty members of the Department of Civil Engineering participated in this session.

Free standing staircases offer a very pleasing solution for vertical circulation in residential and commercial buildings. Free standing staircase structures are complex in the analysis and design. The development of cracks occurring in RCC staircase is one of the major problems to deal with in RCC construction. This session provided detailed information on the various causes of distress in free standing staircases and the possible solutions to overcome the cracks and other associated defects.

The resource speaker of the event was Mr. Umesh B Rao (Consulting Engineer, Bengaluru). The webinar started with the opening remarks of Dr. P Mahabaleswarappa (Principal, MVJCE). Dr. N Vetrivel (Head of Civil Engineering Department, MVJCE) welcomed the dignitaries and the participants. Prof. Muralidhara R (Associate Professor, Department of Civil Engineering, MVJCE) welcomed the resource speaker and introduced him to the gathering by a brief introduction. The Master of Ceremony was Prof. Apoorva Kiran (Assistant Professor, Department of Civil Engineering, MVJCE).

The session was then taken over by the Guest Speaker Mr. Umesh B Rao. The Guest has designed more than 400 Free standing staircase using different materials like marble, timber, granite, glass etc till date. He started with explaining different types of staircases and the forces acting on them and free standing stair case is one of them which are supported by a single support without the interference of columns giving an

aesthetically pleasing appearance. He gave the causes of failure of these staircases and the ways to overcome them. He briefed on the different design criteria to be considered as per the code provisions. He shared many images related to failure of concrete and steel in staircase. He gave many examples of construction encountered during his tenure and the possible solutions incorporated. He then presented few case studies of free standing staircases explaining the reinforcement detailing, the collapse pattern and the repair and restoration procedures. He displayed many real time images showing the different failures, crack patterns and restoration techniques adopted. The session culminated with a Q/A session. Overall, the session was very interesting and informative.

The vote of thanks was proposed by Dr. Chandrasekaran R, extending gratitude to the esteemed Guest Speaker for his presence and an excellent session, to the Management of MVJCE for providing an opportunity to organize such events, to the Principal, Dr. P Mahabaleswarappa, Vice Principal, Dr. M Brindha and the Registrar & COE, Prof. Vaman B Gudi for their constant support and encouragement. He then extended his gratitude to HOD-Civil, Dr. N Vetrivel and Prof. Apoorva Kiran for their active involvement and efforts in conducting this event. He also thanked all the teaching and non-teaching staff, IT helpdesk for their contribution in making the event a successful one.

### **Outcome of the Event:**

The event provided the participants an insight into the design aspects, causes of distress of free standing staircase and the possible solutions. This enhances their technical knowledge and skills. The participants encountered various challenges involved in real time field applications. Overall, the event helped the students in improving their perspective towards research.

Accredited by NBA  
& NAAC



(An Autonomous Institute)

"Free standing staircase-Causes of distress and repair"

Organized By

Department of Civil Engineering and IQAC, MVJCE

Resource Speaker

**Mr. Umesh B Rao**

Consulting Engineer, Bengaluru.

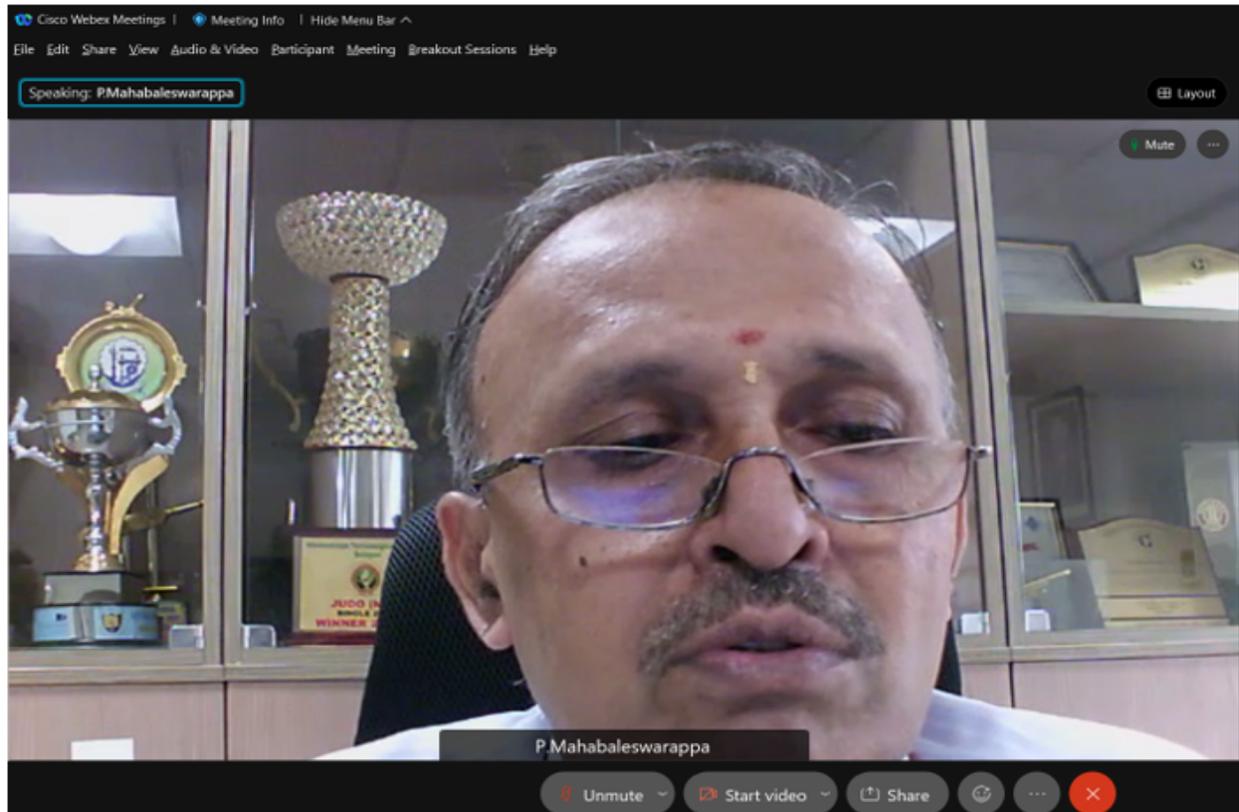
Presided By

**Dr.M.Brindha**  
Vice Principal ,MVJCE

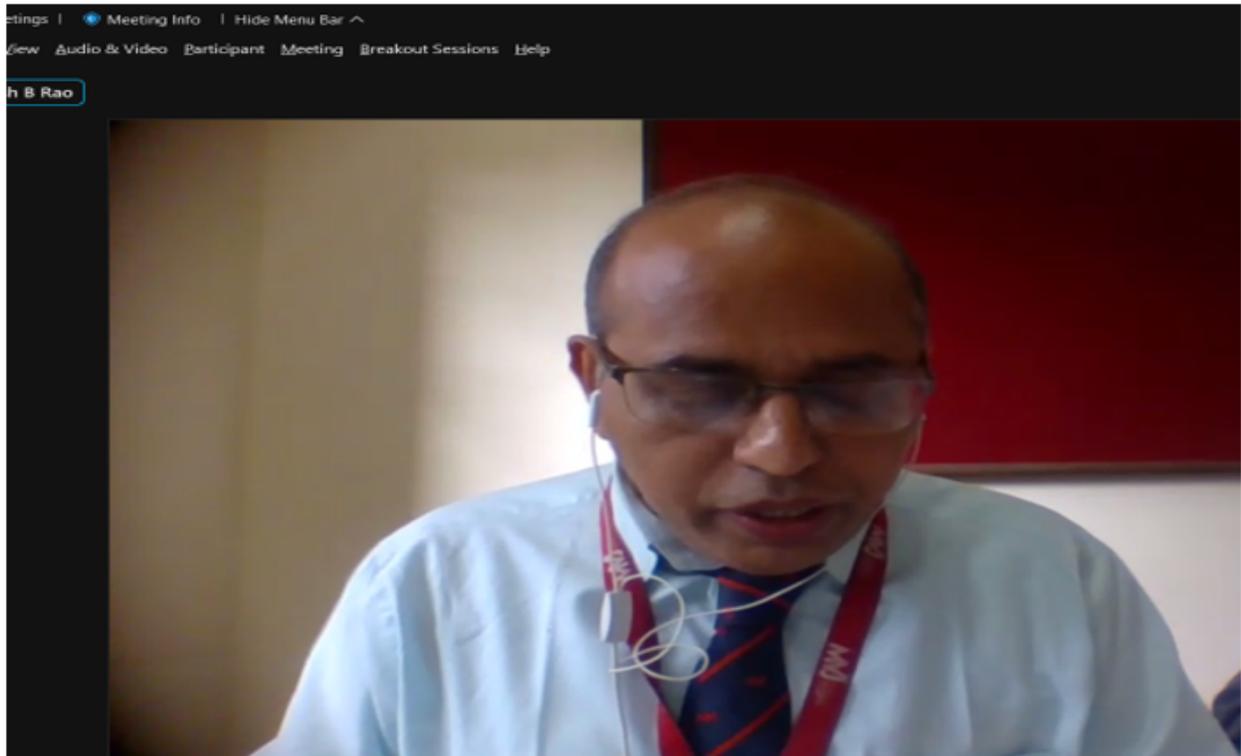
**Dr. P.Mahabaleswarappa**  
Principal, MVJCE

**Prof.Vaman B.Gudi**  
Registrar & COE, MVJCE

on 17-07-2021 @ 10:30 AM to 12:45 PM



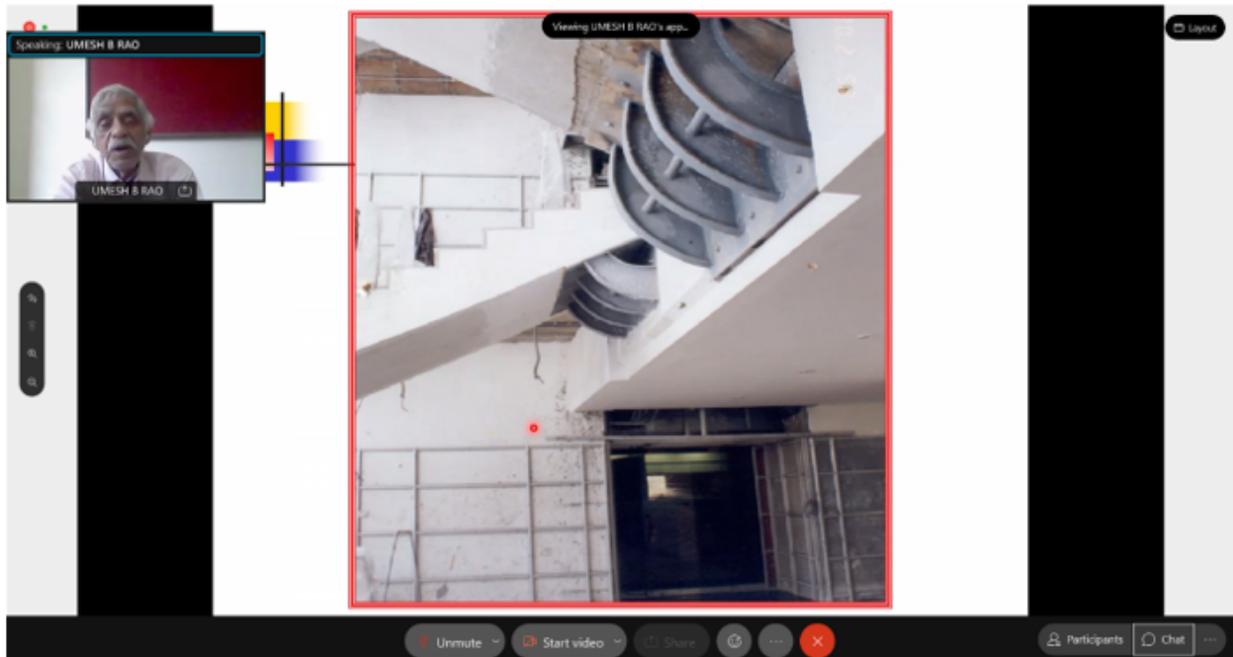
Principal Dr. P Mahabaleswarappa delivering the opening remarks during the webinar 'Free Standing Staircase- Causes Of Distress And Repair' organized by the Department of Civil Engineering under the banner of IQAC, MVJCE on 17<sup>th</sup> July 2021 through WebEx.



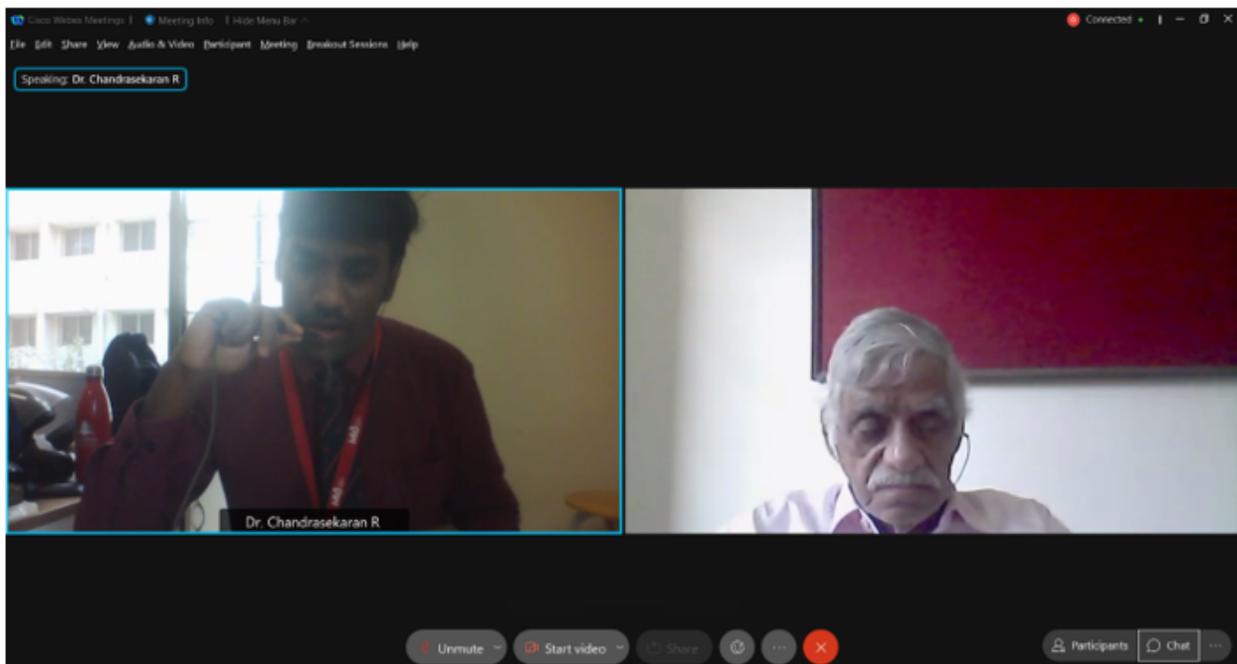
Prof. Muralidhara R introducing the Guest Speaker to the gathering.



Guest Speaker, Mr. Umesh B Rao, addressing the gathering through WebEx.



Guest Speaker, Mr. Umesh B Rao, delivering his lecture on 'Free Standing Staircase- Causes Of Distress And Repair' to the participants.



Dr. Chandrasekaran R (left), delivering the vote of thanks, expressing his gratitude to the Guest Mr. Umesh B Rao (Right).