



IAStructE and IIT Hyderabad Lecture Series



Wind Engineering on Highrise Buildings and Structures: The Benefits of Wind Tunnel Studies, IS 875 and the International Code Wind Load Design Limitations

Wind interacts with buildings and structures in complex and often surprising ways. A structure's geometry, the surrounding terrain, nearby buildings and structures, and seasonal wind conditions all influence the way wind interacts with a structure. Wind loading codes are primarily used for preliminary understanding and not for final design in wind sensitive Structures. Wind tunnel testing provides specific, customized information about a building or structure or any wind sensitive structures, making it a key tool for efficient design. The talk covers the effect of wind on the highrise buildings and structures, limitations and conditions of International and IS 875 codes, and the importance of wind tunnel test.

The topics covered are :

- Codes and Standards –History, Limitations, Assumptions and Conditions.
- Structural and Façade Failure Design – Quick Overview.
- Importance of Wind Tunnel Testing, Mitigation Solution for higher wind loads.
- Site Study, Wind Climate, Influence of Terrain, Boundary Layer Profiles and Boundary Layer Wind tunnel.
- Proximity Model and Building Architecture influence on the wind loads.
- Wind Tunnel Structural and Pressure/Cladding Studies and Comparison to Codes.



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Invitation extended by
Prof. R Pradeep Kumar

Vice President (South), IAStructE & Head EERC
IIT Hyderabad

Saturday 16 April
2022

4:30pm - 6:00pm

REGISTER AT

<https://bit.ly/37h53Z3>

The lecture will be delivered online on zoom platform and the link will sent to the registered participants.