



Prof. (Dr.) Yogendra Singh



Dr. Yogendra Singh is currently Railway Bridge Chair Professor, and Professor of Earthquake Engineering at Indian Institute of Technology Roorkee

- B.E. in Civil Engg. from IIT Roorkee 1989 / M. Tech. and Ph.D. in Structural Engg. from IIT Delhi in 1990 and 1994*
- His research interests include Performance Based Design of Buildings and Bridges; Seismic Vulnerability and Risk Evaluation; Non-Linear Modeling and Analysis; and Seismic Evaluation and Retrofitting of Structures.*
- 25 years of research and teaching experience, guided 13 Ph.Ds.*

Know more about

Prof. (Retd.) M. G. Gadgil



Prof. Gadgil has completed his M.Tech (struct.) from IIT, Mumbai. He has a working experience of over 40 years in the field of structural engineering. Senior Professor & HoD in the Structural Engineering Department at VJTI, Mumbai.

- A rare quality of possessing strong theoretical background and wide field experience of designing several challenging structures*
- Mastered several new age softwares like STAD, ETABs, SAFE, SAP2000, ADAPT and uses the same like new age youngster*
- As advisor to several leading consultants in industry and has got a rich experience of getting associated with design of Complicated, Challenging Structures.*

Subject in next page.....



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In case of abnormal buildings, with different types of irregularities or exceeding a particular height, specialized building specific studies are necessary for seismic design, and such buildings are called CODE-EXCEEDING BUILDINGS.

IS 1893, IS 13920, and IS 16700 specify different categories of buildings not complying with present codal requirements, requiring building specific specialized studies. These studies, usually consist of nonlinear static/dynamic analysis supported by limited experimental studies. The different classes of code exceeding buildings are: (i) buildings with stiffness and strength irregularities, (ii) buildings with torsional irregularity, (iii) buildings consisting of new and emerging structural systems and devices, (iv) super tall buildings, taller than 250 m, and (v) buildings with special functions and performance objectives. This webinar will give an overview of a performance-based design methodology for seismic design of these types of buildings. This methodology is essentially a displacement-based design methodology, involving nonlinear analysis.

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The aim of this webinar is to explain important concepts in non linear behavior of RC structure such as formation of plastic hinges in RC structure, rotation capacity of beam column joint, ductility of individual joints and that of entire structure etc.

The examples considered in the present study are meant to cover wide range of problems and also to demonstrate how to improve the performance of a building by understanding the behavior of building properly and then to suitably modify the design to improve the performance (ultimate load carrying capacity) of the structure. Two class of loads are considered in the examples discussed viz i. incremental loads based on seismic coefficient method ii) ground motion of few past earthquakes. It is hoped that the engineers will have a better insight about the non linear response of a building which is designed based on elastic theory or limit state theory. Further with powerful tools now being made available, the engineer can design his building more rationally with ultimate behavior in mind resulting into more realistic and economical design.

Webinar - 105

On

Code Exceeding Buildings

Pre registration facility is available, kindly register yourself in prior.



4.00PM
To
6.30PM

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webinar:**

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