

Essentials of Earthquake Engineering

FDP @ GIMET Amritsar
20th Dec. 2017

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Agenda:

- Vulnerable environment
 - Govt's role
 - Professional's role
 - Planning
 - Design
 - Construction
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India

- One of the most disaster prone countries
 - 85% area is vulnerable to one or multiple disasters
 - 57% area is in high seismic zone
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Govt's contribution

- Preparation of standards
 - IS 1893: Criteria for Earthquake Resistant Design of Structures
 - 1962: 'Recommendations for Earthquake Resistant Design of Structures'
 - Revised in 1966, 1970, 1975, 1984
 - 2016/2002: (Part 1) General provisions and Buildings; 2015/2005 (4) Industrial Structures Including Stack Like Structures
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Govt's contribution (contd.)

- 2014 Part 2: Liquid Retaining Tanks – Elevated and Ground Supported
 - 2014 Part 3: Bridges and Retaining Walls
 - Part 5: Dams and Embankments
 - IS 4326:1993 Earthquake Resistant Design and Construction of Buildings -Code of Practice; 2013
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Govt's contribution (contd.)

- IS 13828:1993 Improving Earthquake Resistance of Low Strength Masonry Buildings – Guidelines
 - IS 13920:1993/2016 Ductile (Dsgn &) Detailing of Reinforced Concrete Structures Subjected to Seismic Forces – Code of Practice
 - IS 13935:1993/2009 Repair and Seismic Strengthening of Buildings – Guidelines
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