



Training Program

on

**STRENGTHENING
EARTHQUAKE RESILIENCE
THROUGH IS 1893-2025: KEY
CHANGES AND DESIGN
IMPLICATIONS**

For
Engineers, Architects and Planners

Date: 3-4 February 2026

Venue: GIDM, B/h PDEU, Raysan,
Gandhinagar, Gujarat



Background

India is one of the most earthquake-prone countries in the world due to its unique geological and tectonic setting. A significant portion of the Indian subcontinent lies in regions classified as moderate to severe seismic zones, and past earthquakes such as Bhuj (2001), Latur (1993), Nepal Border (2015), and recent Himalayan events have demonstrated the devastating impact of seismic hazards on life, property, and critical infrastructure. Rapid urbanisation, high population density, and the expansion of infrastructure in seismic-prone regions further exacerbate the risk.

Over the years, the Bureau of Indian Standards (BIS) has played a critical role in strengthening seismic safety through the periodic revision of earthquake-resistant design codes. IS 1893, which provides criteria for earthquake-resistant design of structures, serves as the backbone of seismic design practice in India. With advancements in seismic hazard assessment, improved understanding of structural behaviour during earthquakes, lessons learned from past seismic events, and international best practices, the need for a comprehensive revision of the code became imperative.

The release of IS 1893:2025 marks a significant milestone in India's efforts to enhance the resilience of the built environment. The revised code introduces important changes in seismic zoning parameters, design ground motion, response spectra, analysis procedures, and overall design philosophy. These revisions aim to ensure better alignment with contemporary scientific knowledge, improve performance expectations of structures, and reduce the likelihood of catastrophic failures during major earthquakes.

Gujarat is one of the seismically active regions in the country due to its geographical location near major tectonic plates. The State lies within seismic Zones III, IV and V as classified by Bureau of Indian Standards (BIS) with Zone V being the most hazardous. Fault lines such as Kutch rift basin, Cambay Basin, and Narmada Fault increase the state's vulnerability. 2001 Bhuj earthquake caused widespread destruction and loss of life, emphasizing the State's high seismic risk. Other moderate earthquakes have also been recorded, indicating frequent seismic activity. Rapid urbanization in major cities & towns, dense populations and inadequate enforcement of building codes could exacerbate risks.

The IS 1893:2025 revision brings Gujarat under a more stringent seismic risk framework. Most major cities move to Zone IV, several districts enter Zone V, and the Kutch region jumps to a newly created Zone VI — the strictest seismic category in India.

The Gujarat Development Control Regulations (GDCR) mandate compliance with relevant BIS codes, including IS 1893, for structural design and construction approvals. With the notification of IS 1893:2025, it becomes imperative for professionals, local authorities, and approval agencies to understand how the revised seismic provisions are to be interpreted and applied within the framework of GDCR. Effective implementation of the updated code will directly influence building permissions, structural scrutiny, third-party checks, and overall compliance mechanisms at the local and state levels.

However, the effective implementation of IS 1893:2025 requires a clear and uniform understanding of its provisions among practicing engineers, architects, planners, approving authorities, and government officials. Transitioning from earlier versions of the code to the revised standard poses practical challenges related to interpretation, design methodology, software

application, and regulatory compliance. Inadequate understanding or inconsistent application of the revised provisions may compromise the intended safety objectives of the code.

In response to these risks, Gujarat has been a frontrunner in integrating disaster resilience into urban planning and regulatory frameworks. In this context, a focused capacity-building and training programme on “**Strengthening Earthquake Resilience through IS 1893:2025: Key Changes and Design Implications**” is both timely and essential. The programme seeks to create awareness about the rationale behind the revisions, explain key changes in a simplified and practical manner, and highlight their implications for structural design, development control regulations, approval processes, and disaster risk reduction efforts—particularly in a seismically sensitive state like Gujarat. Strengthening technical capacity at this stage will play a crucial role in mainstreaming seismic safety and enhancing the overall resilience of infrastructure and urban development across the state and other earthquake-prone regions of the country.

Objective

The programme has following objectives:

- Develop understanding on Risk, Hazards, Exposure, Vulnerability and Capacity
- Raise awareness about earthquake risks in Gujarat as per revised zonation
- Highlight major changes from previous versions of IS 1893-2016 vs IS 1893-2025
- Explain revised seismic parameters, response spectra, and analysis procedures
- Discuss implications of the new code on structural design, detailing, and safety
- Promote uniform understanding and compliance among professionals and regulatory authorities
- Strengthen integration of seismic safety into planning and disaster risk reduction efforts

Expected Learning Outcome

The expected outcomes of the program are:

- Participants understand the basics of disaster risk management
- Participants Gain clear understanding of the revised provisions of IS 1893:2025
- Participants apply updated seismic design requirements effectively in practice
- Participants Contribute to enhancing earthquake resilience of infrastructure

Program duration

The duration of the program is for two days.

- Start date- 3rd February 2026
- End date- 4th February 2026

Facilities

During the course of the program following facilities shall be provided;

- **Accommodation** on twin sharing basis
- **Food** which include Breakfast, Tea, Lunch & Dinner

- **Recreational facilities** which include, access to fitness center, cycling, lawns and Miyawaki forest

Pre-requisite

There are no pre-requisites for this training course, but prior knowledge on basics of construction practices and Disaster Risk Reduction and IS 1893-2016 may be beneficial.

Targeted Participants

The course is targeted for

- **Engineers and Architects** working in Roads & Buildings Department, Urban Development & Urban Housing Department, Municipal Corporations, Municipalities, Health Department, Education Department etc.
- **Academicians and Researchers** from various educational institutes

Training Pedagogy

The training will be held at Seminar Hall, GIDM, facilitated by Subject Matter Experts (SME). The training will include active learning techniques such as presentations, group discussions, interactive exercises, case studies, simulations, exposure visits and hands on experience which will encourage participants to engage actively with the training content

Training Certificate

Certificate of participation will be given to participants who attend all the sessions during the 2-days training program