Advanced Course on Transmission & Telecommunication Towers: Design, Retrofitting, and Future Trends (ACTT 2026)

4th - 6th March 2026

(under CSIR Integrated Skill Initiative)

Organized by
CSIR-Structural Engineering Research Centre
(An ISO 9001:2015 Certified Organization)
CSIR Campus, Taramani, Chennai-600113, India

About CSIR-SERC

CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai, is one of the national laboratories under the Council of Scientific & Industrial Research, India. CSIR-SERC has built up excellent facilities and expertise for analysis, design and testing of structures and structural components. Services of CSIR-SERC are being extensively used by the Central and State Governments and public and private sector undertakings. Scientists of CSIR-SERC serve on many national and international committees and the Centre is recognized at the national and international levels as a leading research institution in the field of structural engineering.

Tower Testing & Research Station (TTRS),

a world-class facility of CSIR–SERC, Chennai, established in 1984, is dedicated to advanced research on towers and tower-like structures that form the backbone of power transmission and communication systems. Since its inception, CSIR–SERC has played a pioneering role in addressing the complex challenges associated with the analysis, design, and testing of transmission towers and their components. Located at Tirusulam (opposite Chennai Airport), within a unique horse-shoe-shaped erstwhile granite quarry, TTRS is equipped with state-of-the-art facilities and high-level R&D expertise to support full-scale testing, design validation, and performance evaluation of tower structures, and is today recognized as one of the leading tower testing and research facilities in the world.

Background

Transmission and telecommunication towers are critical infrastructure for reliable power and communication networks essential to national development. Rising system voltages, corridor limitations, extreme climatic loads, aging assets, and the need for rapid post-failure restoration have significantly increased the complexity of tower design, assessment, and upgradation. TTRS, CSIR–SERC, Chennai, has been at the forefront in addressing these challenges through focused research on optimal tower configurations, alternative materials and cross-sections, strengthening and retrofitting of towers, failure analysis and mitigation, emergency restoration systems, and hybrid structural solutions. In this context, there is a growing need to foster knowledge sharing among professionals, encourage peer-level technical exchange, and familiarize early-career engineers with current best practices and emerging directions in transmission and telecommunication infrastructure.

Objectives

The course aims to enhance participant's competence in the analysis, design, testing, and performance evaluation of transmission and telecommunication towers, with emphasis on modern design philosophies, code-based practices, and emerging trends. It also seeks to impart knowledge on advanced retrofitting, failure mitigation, and emergency restoration solutions by integrating analytical, experimental, and practical perspectives.

Faculty

The faculty for the course will primarily comprise scientific experts from CSIR-SERC, along with select experts from industry.

Prerequisites

The course registrants can ensure adequate knowledge on the background to course contents to fully exploit the benefits of attending the advanced course.

Venue & Duration

Training and Development Complex, CSIR-SERC, Chennai. Timing: 9.30 a.m. to 5.30 p.m.

Registration and Fee

Rs. 3000/- per participant inclusive of GST for working professionals, Rs. 1500/- for student participants and US $ 450/- for foreign delegates. Presentation material (in .pdf format) and participation certificate will be provided to all the registered participants. The course registration can be completed via online form in the URL below: **https://serc.res.in/course**

Travel, Boarding and Lodging Arrangements

The participants or their sponsoring organizations must bear travel, boarding and lodging expenses. Limited accommodation in the Guest House/Trainee's Hostel at CSIR- SERC Campus may be arranged on a first-come-first-served basis at extra cost. Participants wishing to avail of this facility are advised to write to the course coordinator well in advance, and in any case, not later than 15th February 2026.

Course Coordinators

Dr. M. Saravanan & Mr. S. Vinoth krishnan,
Tower Testing & Research Station,
CSIR-Structural Engineering Research Centre
CSIR Campus, Taramani, Chennai - 600113

Contact Us

Email: saravanan.serc@csir.res.in/
vinothkrishnan.serc@csir.res.in

Mob: 9952369131; 9500066577
Tel: (91) (44) 2254 5574

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