

Online Advanced Course on
**Performance Enhancement of RC
and Steel Structures for Fire and
Corrosion
(PERSFC-2021)**

Duration: 24-26 November 2021



**Organized by
CSIR-Structural Engineering Research Centre
CSIR Campus, Taramani
Chennai-600113, India**

Overview:

CSIR-Structural Engineering Research Centre, Chennai, is one of the national laboratories under the Council of Scientific & Industrial Research (CSIR), India. CSIR-SERC has built-up excellent facilities and expertise for the analysis, design and testing of structures and structural components. CSIR-SERC is conducting skill development programmes with the motive of creating skilled work force for the industrial/societal requirements, as a part of skill initiative programme of CSIR. Recent Advances in Performance enhancement of RC and steel structures for fire and corrosion (PERSFC-2021) is one such programme.

Background:

Corrosion and fire effects are the most important causes of deterioration of existing steel and reinforced concrete (RC) structures which affect its long term performance and durability. During a fire event, the intensity and duration of heat or direct flame impingement can cause damage to RC and steel structures that reduce the remnant life of the structure by reducing the strength of the structural components below the threshold of safety. Corrosion damage can also result in life-threatening situations; hence it has to be addressed for safety, environment and economic reasons. In both cases present condition of the structure must be evaluated carefully by means of NDT techniques in order to take decision on necessary retrofitting or replacement of selected fire-affected or corroded members to prevent premature failure of the structure thereby promoting public safety and enhancing the life of the structure.

Objectives:

The primary objective of the course is to provide an opportunity for researchers, practicing engineers, academicians, and consultants, belonging to the public and private sector organizations/institutions, and other engineering professionals to familiarise themselves with designing structures against extreme conditions such as fire and corrosion, durability issues of concrete and steel structures, common control and prevention methods for both old and new structures, diagnosing techniques for condition assessment, the conventional and promising emerging technologies for repair and rehabilitation of structures. Participants will gain essential knowledge and skills for managing fire and corrosion effect in both steel and RC structures.

Course contents:

The course is envisaged to provide the necessary background and exposure on various aspects like Fire resistance of structural steel; Fire resistance of RC; Mechanism of heat transfer in steel and concrete; Assessment of corrosion in steel and RC structures and preventive measures; Field investigation studies on fire and corrosion affected structures; NDT, Repair and rehabilitation of concrete and steel structures

Fee:

Rs.1500/- per participant inclusive of GST for Indian delegates and US\$40/- for foreign delegates. Course/presentation material (pdf format) and participation certificate shall be provided to all the registered participants. The brochure and details of the registration can be downloaded from the CSIR-SERC web site <https://serc.res.in/course>

Registration:

The course registration can be completed via online (<http://forms.serc.res.in/view.php?id=33087>). Please choose/select the intended course title in the online registration form and fill all the particulars and pay the registration fee by clicking the **SBI collect** in the registration form.

Requirements for the online mode:

Desktop/Laptop/Smartphone with good internet speed and sufficient data pack. A web link (MSTeams) will be sent to the registered participants for joining the course.

For further details, please contact

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