

ASCRIN Project: Experimental and numerical studies of ultra-high-strength concrete-filled steel tubular columns

Overview

This project will investigate the behaviour of ultra-high-strength concrete-filled steel tubular (CFST) columns. The experimental and numerical studies will be conducted to investigate the fundamental behaviour of ultra-high-strength CFST columns under various loading conditions. The numerical study will be conducted based on the finite element method. The material constitutive model for ultra-high-strength concrete will be proposed and implemented in the finite element model. The effect of geometric and material parameters on the performance of CFST columns will be examined. The design of CFST column will be developed.

We are seeking outstanding PhD applicant to work on the project.

Eligibility Criteria

- Applicant must be able to demonstrate relevant research, numerical skills and strong interest in the areas of: Structural Engineering and Geotechnology Engineering
- Applicant should meet both Indian Institute of Technology Kanpur (IIT-K) and La Trobe University (LTU) entry requirements. See the following web page for entry requirements:
 - (1) IIT-K: <https://www.iitk.ac.in/doaa/post-graduate-admission>
 - (2) LTU: <https://www.latrobe.edu.au/study/apply/research/doctor>

Application Process Applicant who require more information or are interested in this specific project should first contact the listed Supervisors: IIT-K supervisors: Associate Professor Arghya Das (arghya@iitk.ac.in), Assistant Professor Amar Nath Roy Chowdhury (amarrc@iitk.ac.in) and LTU supervisors: Dr Vipul Patel (v.patel@latrobe.edu.au) and Dr Mumtaz Hussain (m.hussain@latrobe.edu.au).

More information about the PhD join project and guidance on the application process and scholarships can be found on the following website <https://ra-latrobe.iitk.ac.in/> (scroll down to view information for the joint doctoral degree program).

Closing date

Close Date Applications will close when a candidate is selected.