

## PATRON

**Prof. Shyam Lal Soni**  
(Director, NIT Uttarakhand)

## CONVENER

**Dr. Aditya Kumar Anupam**  
Head of the Department

## COORDINATORS

**Dr. Kranti Jain**

**Dr. Vikas Pratap Singh**

**Dr. Shashank Bhatra**

**Mr. Muskan Mayank**

## CONTACT

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## NIT UTTARAKHAND

National Institute of Technology, Uttarakhand is located in the hilly terrain of Srinagar, Pauri Garhwal, Uttarakhand. NIT Uttarakhand was established in 2009 under the Act of Parliament of India by the Ministry of Human Resource Development and designated with the status of "Institute of National Importance". The institute has made a rapid growth in the recent past in terms of starting new academic programs and development of laboratories and infrastructure.

## CIVIL ENGINEERING DEPARTMENT

Department of Civil Engineering established in the year 2014 intends to be the propagator of development and research in the field of Civil Engineering. Taking advantage of its geographical location, the institute plans to build a systematic and sustainable model for hills development and rehabilitation. The department offers four-year undergraduate program in Civil Engineering and postgraduate courses in Structural Engineering and Transportation Engineering along with Ph. D. degree program.



(TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME-III)

# TEQIP-III

**FIVE DAYS  
SHORT TERM COURSE**

on

**“Forensic Engineering and  
Rehabilitation of Structures”**

**(05<sup>th</sup> – 09<sup>th</sup> September, 2020)**

Organized by



**Department of Civil Engineering**  
National Institute of Technology  
Uttarakhand  
Srinagar, Pauri Garhwal  
India-246174

## INTRODUCTION

The course will focus on various engineering aspects pertaining to forensic structural practice and rehabilitation process. With rapid economic development, increased design sophistication, more-and-more daring construction technology and accelerated project delivery the proliferation of structural and geotechnical engineering failures throughout the world. To address the aging infrastructure, numerous researches are in progress worldwide. To meet the increasing needs for tackling natural disasters, infrastructure sustainability that can accommodate the rapid growths in technological development have become essential. It is an urgent requirement to address approaches in order to prevent potential system-level failures, so that the mitigation costs can be minimized and thus addressing the economic burden.

The course will focus on the forensic aspects of structural and geotechnical engineering practices apart from introducing the basics for the investigation of failures and understanding some of the pertinent legal aspects. It is an aim to prepare the participants for eventual practice of forensic engineering. The course includes data collection to field investigations, hypothesis generation and testing techniques, report findings of most likely forensic causes and consequences, and improving engineering design as per the forensic engineering cases.

One of the benefits of forensic investigations is the lessons learned from failures and the use of those lessons to improve codes, standards and practices in order to limit future occurrence of failures. Therefore, the purpose of the course is not only to teach forensic investigation of failures and providing technical support in the consequent dispute resolution process, but also to show how to avoid failures and what the consequences of failures may be.

## COVERAGE

- Basics on forensic aspects of structural and geotechnical engineering,
- NDT and When to use non-destructive testing of reinforced concrete structures: an overview
- Rehabilitation Technique for Reinforced Concrete Structures after the natural hazards.
- Environmental Problems and Natural Hazards.
- Learning from failures: Case studies on structural, geotechnical and environmental forensics.

## REGISTRATION FEES

Delegates	Fees*
Faculty, Engineers and consultants	1000/-
Students	500/-

\*non-refundable

No fee for the students of TEQIP funded institutions.  
For online payment the NIT Bank account details :

A/C Name	National Institute of Technology Uttarakhand
Bank Name	SBI, Srinagar-Garhwal
A/C No.	37530566069
IFSC Code	SBIN0003181

## SPEAKERS

- Senior Persons from Industry
- Subject experts from reputed organizations (IITs/NITs/CBRI)

## WHO MAY PARTICIPATE

- Engineers from Civil Engineering Background
- Scientists from research and development (R&D) organizations
- Students and Faculty members from engineering colleges
- Practicing engineers and design consultants

## REGISTRATION FORM

### TEQIP-III

Five Days Short Term Course  
on

### “Forensic Engineering and Rehabilitation of Structures”

(05<sup>th</sup> – 09<sup>th</sup> September, 2020)

Name: \_\_\_\_\_

Designation & Official Address: \_\_\_\_\_

Highest Academic Qualification: \_\_\_\_\_

Address for Correspondence: \_\_\_\_\_

Pin: \_\_\_\_\_

Mobile Number: \_\_\_\_\_

Email: \_\_\_\_\_

Signature of Applicant: \_\_\_\_\_

Authorized Signatory  
With Seal