

### Chief Patron

#### Dr. P. M. Padole

Director,  
Visvesvaraya National Institute of  
Technology, Nagpur, Maharashtra

### Patron

#### Dr. Y. B. Katpatal

Head, Civil Engineering Department,  
Visvesvaraya National Institute of  
Technology, Nagpur, Maharashtra

### Principal Coordinator

#### Dr. (Mrs.) V. A. Dakwale

Assistant Professor,  
Civil Engineering Department,  
Visvesvaraya National Institute of  
Technology, Nagpur, Maharashtra  
Contact No. +91- 9423109310  
Email: vaidehidakwale@civ.vnit.ac.in

### Coordinator(s)

#### Dr. R. V. Ralegaonkar

Professor,  
Civil Engineering Department,  
Visvesvaraya National Institute of  
Technology, Nagpur, Maharashtra  
Contact No.: +91 9823128835  
Email id: sanvan28@yahoo.com

#### Dr. M. V. Madurwar

Assistant Professor,  
Civil Engineering Department,  
Visvesvaraya National Institute of  
Technology, Nagpur, Maharashtra  
Contact No.: +91 9422301167  
Email id: mangesh\_bits@yahoo.com

### Registration:

Registration is FREE and has to be done through ATAL Website. Participants can sign up and register for the program in AICTE ATAL website links:

<https://www.aicte-india.org/atal>

Or

<https://atalacademy.aicte-india.org/signup>

**Maximum Number of Participants: 200**

**Last date to apply: 15-07-2021**

**Intimation to selected candidates: 16-07-2021**

### Eligibility

Faculty members from AICTE approved institutions, PG students and research scholars from educational institutions and professionals from industries and Government departments are eligible to participate.

### Mode of Delivery

Live web sessions through Online Platform. Participants should have Smart phone/Laptop with good internet facility.

### E-Certificate

Will be issue to participant with,

1. Minimum 80% attendance in the whole course
2. Minimum 60% marks in the online examination conducted at the end of FDP.



## AICTE TRAINING AND LEARNING (ATAL) ACADEMY

**Sponsored Online One Week Faculty  
Development Program**

on

**Application of Sustainable  
Construction Engineering  
for Enhancing Durability of  
Existing Structures**

Thrust Area: Sustainable Engineering

**19<sup>th</sup> to 23<sup>rd</sup> July 2021**

Organized by

**Department of Civil Engineering,  
Visvesvaraya National Institute of  
Technology, Nagpur,  
Maharashtra-440010  
[www.vnit.ac.in](http://www.vnit.ac.in)**

### About the ATAL Academy

AICTE Training and Learning (ATAL) Academy is established with the vision “To empower faculty to achieve goals of Higher Education such as access, equity and quality”. Main objective of ATAL Academy is to plan and help in imparting technical education in the country and to support technical institutions in fostering research, innovation and entrepreneurship through training in various emerging areas. In the backdrop of announcement of National Education Policy (NEP) 2020, ATAL Academy is working in the direction of NEP keeping in view the values and morals of Indian Education System.

### About the institute

Visvesvaraya National Institute of Technology, Nagpur is one of the thirty-one National Institutes of Technology in the country. The Govt. of India conferred on the Institute, the Deemed to be University status under University Grants Commission Act, 1956 (Section 3 of 1956) with effect from 26th June 2002. Subsequently, the Central Govt. by Act of Parliament (National Institutes of Technology Act, 2007 (29 of 2007)) declared VNIT Nagpur as an Institute of National Importance along with all other NITs. The Act was brought into force from 15th August 2007. Earlier, the Institute was known as Visvesvaraya Regional College of Engineering (VRCE). It was established in the year 1960 under the scheme sponsored by Govt. of India and Govt. of Maharashtra. The college was started in June 1960 by amalgamating the State Govt. Engineering College functioning at Nagpur since July 1956.

In the meeting held in October 1962, the Governing Board of the College resolved to name it after the eminent engineer, planner, and statesman of the country Sir M. Visvesvaraya.

### About department

The Department of Civil Engineering is one of the finest and oldest engineering departments of the Institute and stands with an immortal reputation. The department offers the undergraduate course of B. Tech in Civil Engineering and five postgraduate courses, and PhD in Construction Technology and Management, Environmental Engineering, Water Resource Engineering, Transportation Engineering and Geotechnical Engineering. The department has well qualified and research oriented faculty. The department has a firm base of consultancy in all domains of civil engineering.

### About the FDP

Sustainable construction engineering has received much attention in recent years in the architecture, engineering and construction (AEC) industry. The suitable sustainable technology can be considered as one of the key solutions for enhancing the (structural and functional) durability of the structures. A retrofitted design model for sustainable construction engineering can contribute to the durability of existing structures through its three main dimensions which are environmental, economic and social.

The FDP is planned to disseminate and discuss the on-going technical advancement, constraints and other significant issues of sustainable construction engineering in context to durability of Civil Engineering Structures.

### Resource persons

The course will be conducted by distinguished faculty members from reputed National & International Institutions along with Industry Experts.

### Key sessions

1. Introduction to Sustainable Engineering
2. Durability as a Measure for Sustainable Construction.
3. Non Destructive technology for Condition Assessment
4. Sustainable Material for durability: Self-Healing Concrete
5. Sustainable Material for durability: Mortars and Masonry
6. Sustainable Material for durability: Pre-Cast Units
7. Sustainable Material for durability: Construction Chemicals
8. Sustainable Techniques for durability: Functional parameters
9. Sustainable Techniques for durability: Mitigation of corrosion in Reinforcement Steel
10. Quality Control and Maintenance Management
11. Life Cycle analysis/Costing of Sustainable Construction
12. Application of digital technology for maintenance of structures
13. Application of IOT is sustainable Construction
14. Stress management for Construction Engineers