

## THE INSTITUTE

The Institute has been established in 1960 to meet the growing demand for technical manpower in the State of Maharashtra. The Government College of Engineering, Aurangabad is one of the renowned institute in Maharashtra. and its establishment has fulfilled the aspirations of people of Marathwada region. The institute offered UG programs in Civil, Mechanical, Electrical, Electronics & Telecommunications, Computer Science & Engineering and Information Technology. The Post-graduate programs leading to Masters Degree in Engineering have been introduced in the year 1986. The institute is functioning as an autonomous institute affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad since academic year 2006-07. The Institute is situated in the heart of Aurangabad city at about 1 Km from railway station, sprawling over a campus of around 22 acres. The institute has been selected for funding under TEQIP-Phase-III, during which the focus will be on PG, Ph.D. programmes, research and development activities.

## AICTE TRAINING AND LEARNING (ATAL)

AICTE Training and Learning (ATAL) Academy is established to empower faculty to achieve goals of Higher Education such as access, equity, and quality. AICTE is committed for the development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development e.g. SWAYAM, MOOCs, Start-up Initiatives, Prime Minister Kaushal Vikas Yojana, Sansad Adarsh Gram Yojana (SAGY), Swachh Bharat/ Unnat Bharat Abhiyan, Yoga Activities etc. AICTE understands that there is a need of the day to train the young generation in the skill sector and having faculty & technicians to be trained in their respective disciplines. It was felt that training with the latest tools and technologies is vital to keeping an institute competitive and more productive. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies. It also transforms them to harmonize with society and most importantly to make them a good citizen of the country.

## PATRONS

**Dr. Abhay Wagh**

Director, Directorate of Technical Education, Maharashtra State

**Prof. Mahesh Shivankar**

Joint Director, Technical Education  
Regional Office, Aurangabad

**Dr. P.B. Murnal**

Principal, GEC Aurangabad

## CONVENER

**Dr. G. K. Patil**

Head of Civil Engg. Dept.,  
GEC Aurangabad

## COORDINATOR

**Dr. D.G. Regulwar**

Professor of Civil Engineering  
GEC Aurangabad

## DEPARTMENT OF CIVIL ENGINEERING

Department of Civil Engineering is one of the oldest department offering one undergraduate and 2 postgraduate programmes. The postgraduate programme includes M.E. Civil-Water Resources Engineering (Full Time) and M. E. Civil-Soil Engineering (Part-Time). The department is recognized as a Quality Improvement Programme (QIP) Centre since 2012 for faculty members from other institutions to carry out their research leading to Ph.D. degree. The department has excellent laboratories to cater to both UG, PG and research programmes.

## AICTE Training and Learning (ATAL) Online FDP on

## Engineering Optimization Techniques and its Applications (ENOTAA-2021)

14-18 June, 2021

Organized by

Department of Civil Engineering  
Government College of Engineering Aurangabad  
431 005 Maharashtra State, India  
(An Autonomous Institute of Govt. of Maharashtra)  
Phone: 0240-2366140, 2366150 [www.geca.ac.in](http://www.geca.ac.in)



Under the aegis of  
AICTE Training and Learning Academy (ATAL)



**VENUE**  
Cisco Webex Platform

# AICTE Training and Learning (ATAL) Online FDP on Engineering Optimization Techniques and its Applications (ENOTAA-2021)

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## SCOPE OF THE FDP

Optimization algorithms are becoming popular in engineering design activities. They are extensively used in those engineering design problems where the emphasis is on maximizing or minimizing a certain goal. The basic aim of the proposed short term training programme is to make participants aware of the basics of engineering optimization methods and its applications. This FDP is made interdisciplinary so that the participants of all disciplines will be aware of application of engineering optimization.

The objectives of this FDP are

- To gain the knowledge of different optimization techniques and their applications in the engineering problems for the benefit of society and industries
- Interactions with national experts in the area of engineering optimization
- Providing direction to the researchers for utilization of optimization techniques

## COURSE DURATION

14 Sessions of 2 hour each in 5 days programme

## RESOURCE PERSONS

Experts from IITs, NITs and State Colleges will be delivering lectures.

## COURSE CONTENT

- Introduction to Optimization, Modeling with Linear Programming, Graphical LP Solution
- The Simplex Method, Artificial Starting Solution, Special cases in simplex method, Sensitivity analysis
- Duality, Goal programming,
- Dynamic Programming, Forward and backward recursion
- Classical Optimization Theory, Non Linear Programming, Unconstrained algorithm, Constrained algorithm
- Simulation Modeling
- Introduction to Fuzzy Logic, Fuzzy Linear Programming

## COURSE OUTCOMES

- Participants will be able to understand the fundamentals of Optimization, different optimization techniques, Linear and Non Linear Programming, Dynamic Programming, Fuzzy Logic
- Participants will be able to apply Linear programming, Non Linear Programming, Dynamic Programming, Fuzzy Linear Programming to the real world problems

## How to Apply?

The participant has to register through ATAL portal (<https://atalacademy.aicte-india.org/> signup)

## Who should attend?

The faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, Government (Aided), Industry and staff of host institutions. There is no Registration fee from any participant (Max. 200 participants). On completion of the programme on all the days, participants will be awarded an E-Certificate of participation by respective ATAL Academy. Minimum 80% attendance and 60% marks in the quiz at the end of the FDP are compulsory for certification.

## Selection and Certification Criteria

Selection is made based on a first-come, first-serve basis, and priority will be given to those who have not attended ATAL FDP earlier. The confirmed candidate will be notified on or before 7 June 2021.

## COORDINATOR

**Dr. D. G. Regulwar**

Professor of Civil Engineering

Tel: +91 240 2366140

Cell:+91 9422202380

E-mail: [regulwar@gmail.com](mailto:regulwar@gmail.com)

Website: <http://regulwar.com/>