

**Department of Civil Engineering
Motilal Nehru National Institute of
Technology Allahabad**

Announces

**One Week Online Course
On**

**Numerical and Optimization Techniques
(ONLINE NOT-2020)**



January 09 - 13, 2021



Coordinators

**Dr. Raj Mohan Singh, Dr. N. R. Rawal,
Dr. Pramod Soni**

**Department of Civil Engineering
Motilal Nehru National Institute of
Technology Allahabad,
Prayagraj-211004, India.**

BACKGROUND

Computational techniques have become an essential part to solve the engineering problems. Numerical and optimization techniques are important computational tools for conducting research and development in engineering sciences. The proposed short term course presents traditional as well as advanced numerical and optimization methods. It also highlights successful applications in various real areas. The course modules are framed for the participants with or without a strong background in the field. The prime objective of the online short term course is to familiarize the participants with basic as well as state of the art of theory and applications of numerical and optimization techniques.

Course Content

This online training programme will cover the following aspects

- Numerical techniques: General numerical methods, FDM (Finite difference), FEM (Finite element Method)
- Optimization techniques: Constrained and unconstrained optimization with linear and non-linear programming methods
- Specialized optimization techniques: GA, multi-objective and Goal Programming
- Soft-computing: ANN, Fuzzy and Hybrid Intelligent methods; Fuzzy optimization
- Labs: Labs on Numerical, optimization and soft computing techniques based on MATLAB and LINGO programmes;
- Case studies and demonstrations of applications.

About Civil Engineering Department

The Department of Civil Engineering was established in 1961. The initial intake of the students was 30. The first head of the Department of Civil Engineering was Mr. S.C. Jain. The Department began teaching with 5 faculty members. For first 2 years the classes and laboratories were held in the premises of the Polytechnic Allahabad. In the third year of its establishment, the main building of the Institute came up and the Department of Civil Engineering was located in the main building. In the beginning, the Department had only five laboratories viz. Survey Laboratory, Soil Mechanics and Foundation Engineering Laboratory, Concrete and Structure Laboratory, Transportation Engineering Laboratory and Public Health Engineering Laboratory.

The M.Tech. Programme in the department started in 1970 on a regular basis in the streams of (1) Structural Engineering and (2) Soil Mechanics and Foundation Engineering. At present four M.Tech. programmes are running in the Department viz. (1) Structural Engineering, (2) Geotechnical Engineering, (3) Transportation Engineering and (4) Environmental Engineering.

SPEAKERS/ EXPERTS

Expert faculty members from MNNIT Allahabad will deliver online lectures through GOOGLE MEET. The theoretical and practical aspects of Numerical techniques and its importance in Engineering Works will be delivered by resource person of MNNIT Allahabad/other reputed institutions as per the availability.

REGISTRATION FEES

Professional : 3000/-
Faculty : 2000/-
Students : 1200/- (Research Scholar)
: 750/- (UG/PG/M.Tech)

The registration fee of selected participant must be paid by DD in favour of "NOT 2020", MNNIT Allahabad, Registration fee may be transferred electronically through NEFT/RTGS with intimation to coordinator(s).

NEFT, A/C Name: NOT-2020

A/C Number: **77660100023437**

Bank of Baroda, Branch: MNNIT, Prayagraj

Allahabad, IFSC: **BARB0VJMNRE**.

Scanned copy of the filled form may be emailed to coordinator(s) in advance.

Important Dates

Last Date of receipt of Application: Jan. 05, 2020

PATRON

Prof. (Dr.) Rajeev Tripathi

Director, Motilal Nehru National Institute of Technology Allahabad

CHAIRMAN

Prof. (Dr.) R. C. Vaishya

Head, Civil Engg Dept., MNNIT Allahabad

COORDINATORS

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About MNNIT Allahabad

Motilal Nehru National Institute of Technology Allahabad, Allahabad (MNNIT) is an Institute with total commitment to quality and excellence in academic pursuits. It was established as one of the seventeen Regional Engineering Colleges of India in the year 1961 as a joint enterprise of Government of India and Government of Uttar Pradesh, and was an associated college of University of Allahabad, which is the third oldest university in India.

With over 45 years of experience and achievements in the field of technical education, having traversed a long way, on June 26, 2002 MNREC was transformed into National Institute of Technology and Deemed University fully funded by Government of India. With the enactment of National Institutes of Technology Act-2007(29 to 2007), the Institute has been granted the status of institution of national importance w.e.f. 15.08.2007.

The Institute had begun with offering Bachelor Degree Programmes in Civil, Electrical and Mechanical Engineering. It was the first in the country to start an undergraduate programme in Computer Science & Engineering in 1976-77. Subsequently, in the year 1982-83 undergraduate programmes in Electronics Engineering and Production & Industrial Engineering were started. The first Master's Programme of the Institute was introduced by the Mechanical Engineering Department in the year 1966. In all other Engineering Departments, Master's Programmes were introduced in the 1970-71. To add a new dimension to itself the Institute established School of Management studies in 1996, which offers a two year / four semester post graduate degree programme in Management (MBA).

The Institute was selected as a lead institution in the Design theme under Indo-UK REC Project (1994-99). Under this scheme a Design Centre was established. The Institute has been selected as a Lead Institution under World Bank funded Government of India Project on Technical Education Quality Improvement Programme (TEQIP). Two state level institutions are networked with MNNIT under the project.

REGISTRATION FORM

(Online NOT-2020)

1) Name: _____
2) Designation: _____
3) Date of Birth: _____
4) Category of Participation:
(a) Students (b) Faculty (c) Professionals
5) Organization: _____

6) Address for Communication: _____

7) Email: _____

8) Telephone/Mobile No.: _____

9) Gender [Male/Female]: _____

10) Details of Registration Fee:
NEFT/Online transaction/ D.D./ Cheque/ Ref. No: _____

Date: _____ Bank Details: _____

Amount (Rs): _____

Date: _____ Signature of Applicant

****The Above Form should be submitted with Copy of ID Proof like Institute/Work Place I D Card/ Aadhar Card.**

Please send this form to:

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Coordinator, NOT-2020
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