## National Conference On

### NONLINEAR ANALYSIS, CONTROL

# AND OPTIMIZATION (NACO-2025)

Organized by

Department of Mathematics and Computing IIT(ISM), Dhanbad

04 - 06 June, 2025

#### **REGISTRATION FORM**

Online registration or Scan QR



Name:
Designation:
Qualification:
Organization:
Address for Correspondence:
Tel. (O)(M)
E-mail:
NEFT Particulars:
AmountNo
DateBank
Accommodation Required: Yes / No

DECLARATION: The information provided by me is true to the best of my knowledge. I agree to abide by the rules and regulations governing the organizing committee. If selected, I shall attend the program for the entire duration.

Date: Signature of the Applicant

Place:

Forwarded through Head Dept/ Institution

#### **FOCUSED AREAS**

- > Nonlinear Analysis
- > Continuous Optimization
- Fixed Point Theory
- Portfolio Optimization
- Convex and Non-smooth Analysis
- Variational Inequality
- > Control Theory
- Dynamical Systems

#### WHO CAN ATTEND?

PG Students, Research Scholars, Faculty members, Scientists and persons from industries

#### **REGISTRATION DETAILS**

The following registration fee includes kit, breakfast, working lunch, tea & snacks, dinner and accommodation on all three days .

Research Scholars
Rs. 4000/ Faculty
Rs. 5000/ Industry and R&D Organizations
Rs. 6000/ -

The registration fee has to be paid through NEFT in the following given account:

Name: IIT(ISM) Special fund

A/C: 0986101024892 IFSC: CNRB0000986

Bank Name: CANARA BANK

Branch: SARAIDHELA, DHANBAD,

**JHARKHAND** 

The filled in registration form along with the NEFT details should be sent to:

Prof. A. Jayswal /Prof. B. S. Kushvah

Department of Mathematics and Computing,

Indian Institute of Technology (ISM),

Dhanbad - 826 004, Jharkhand, India

Ph.: +91 9431122002 / 9471191119

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# National Conference On

## NONLINEAR ANALYSIS, CONTROL AND OPTIMIZATION (NACO-2025)

04 - 06 June, 2025



Convener
Anurag Jayswal
Co-convener
B. S. Kushvah



Organized by

DEPARTMENT OF MATHEMATICS AND COMPUTING INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES)

DHANBAD 826 004 Jharkhand, India

#### INTRODUCTION

Continuous optimization and nonlinear analysis are rapidly growing areas of mathematics with numerous applications to control theory, economics, engineering, and other disciplines. During the last three decades, the study of nonlinear and variational analysis has been devoted vigorously and such activity had great influence on other areas of science as much as mathematics. At the same time, optimization has grown in connection with the study of problems of convexity, equilibrium, control, and stability of linear and nonlinear systems. These two mathematical disciplines have no border and they rather have good effects together. The main objective of the conference is to discuss recent results in nonlinear analysis, control and optimization and their applications as well as recent research trends in these fields. In this conference several speakers having expertise in the aforesaid fields will deliver their talk and to hold this conference is very important for development of optimization theory and its related area all over the world. We hope and believe that each participant in this conference will have good opportunities not only to explore themselves in this field and its applied areas but also to establish deepen our friendship.

#### **ABOUT THE PROGRAMME**

The main objective of the program is to provide the platform where the participants can benefit from the lectures delivered by some eminent experts from country on the given below topics and have interaction with them. The program provides an opportunity to young researchers to get an overview of the current trends in nonlinear analysis, control and optimization and to interact with the experts in the field. The program is useful to mathematicians, scientists and engineers intending to step into this fascinating area. This conference is designed to provide an introduction to the applications of nonlinear analysis, control and optimization in different aspect.

#### **CHIEF PATRON**

Prof. Prem Vrat
Chairman GC & EB, IIT(ISM) Dhanbad

#### PATRON

Prof. Sukumar Misra Director, IIT (ISM) Dhanbad

#### ORGANISING COMMITTEE

All the members of the Department of Mathematics and Computing, Indian Institute of Technology (ISM) Dhanbad

#### **INVITED SPEAKERS (TENTATIVE)**

Prof S. K. Neogy, ISI Delhi

Prof. C. S. Lalitha, University of Delhi (South Campus)

Prof. Pankaj Gupta, University of Delhi

Prof. Manjari Srivastava, University of Delhi, Delhi

Prof. D. R. Sahu, BHU Varanasi

Prof. S. K. Gupta, IIT Roorkee

Prof. V. Vetrival, IIT Madras

Prof. Geetanjali Panda, IIT Kharagpur

Prof. Manoj Thakur, IIT Mandi

Prof. Sanjeet Singh, IIM Lucknow

Prof. D. Ghosh, IIT BHU

Prof. S. Kar, NIT Durgapur

Prof. A. Iqbal, AMU Aligarh

Prof. B. Iswar, BRA Muzaffarpur

Prof. B. S. Ratanpal, MSU Baroda

Prof. Kanak Saha, IUCAA Pune

#### **BOARDING & LODGING**

Boarding and lodging will be provided by the organizers. Accommodation will be provided to all the outstation participants in the student hostel of the institute. Those who want to stay in the IIT (ISM) guest house need to pay as per the rules, subject to availability.

#### **IMPORTANT DATES**

Last date of abstract submission: 10/05/2025 Abstract acceptance information: 15/05/2025 Last date for payment and registration: 20/05/2025

#### ABOUT THE DEPARTMENT

The Department of Mathematics and Computing is a highly reputed department which functions with excellence as its motto. The Department was started in the year 1926 along with other Engineering and Science Departments of the institute and has established itself as a dynamic center for academic and research activities. In addition to the teaching of courses in Mathematics for B. Tech and M. Tech Programmes, the Department offers 4 Yr. B. Tech (M&C), two P.G. Programs, M.Sc. and 2 Yr. M.Tech. (Data Analytic). The faculty is actively engaged in research in diverse fields such as Analysis, Algebra, Topology, Operations Research, Cryptography, Graph Theory, Solid Mechanics, Fluid Dynamics, Mathematical Modelling, Machine learning, Artificial Intelligence etc. At present, there are 32 faculty members in the Department and more than 75 research scholars are working for their Ph.D. The Department has a full-fledged computation laboratory to meet the requirements of the students, research scholars and the faculty members.

#### **ABOUT THE INSTITUTE**

The Indian National Congress at its XVII Session of December 1901 passed a resolution stating that "in view of the fact that the tendency of recent legislation namely, The Indian Mines Act VII of 1901, is that all Indian mines must be kept under the supervision of mining experts, the Congress is of opinion that a Government College of Mining Engineering be established in some suitable place in India on the models of the Royal School of Mines in England, Mining Colleges of Japan and at other places in the continent". The McPherson Committee formed by Govt. of India, recommended the establishment of an institution for imparting education in the fields of Mining and Geology, whose report, submitted in 1920, formed the main basis for establishment of the Indian School of Mines, Dhanbad.