STC on Advanced Optimization Techniques for Engineering Applications

AOTEA(W)-2023

(26-30 Dec, 2023)

Department of Computer Engineering National Institute of Technology Kurukshetra



ABOUT NIT KURUKSHETRA

National Institute of Technology Kurukshetra, Haryana is a premier Technical Institute of the region. The institute started working as Regional Engineering College, Kurukshetra in 1963. This Institute was conferred upon status of Deemed University on June 26, 2002. Since then it has been renamed as National Institute of Technology, Kurukshetra, an institution of national importance. It offers BTech, MTech, MBA, MCA, MSc. and PhD.

ABOUT THE DEPARTMENT

Department of Computer Engineering (CoE) aims to prepare students to undertake careers involving innovation and problem solving using IT, or to undertake advanced studies for research careers in IT. The department is well equipped with state-of-the-art laboratories of all major domains of Computer Engineering and Information Technology with excellent Intranet, servers, hardware and software support. The department is proud to have a record of almost 100% placement for last 10 years.



ABOUT THE PROGRAMME

The main objective of this short-term course is to provide a forum in which the participants obtain information about recent advances in optimization techniques. It also highlights successful applications of optimization in various areas. It comprises of sessions for the participants to introduce them to a number of modern optimization methodologies and their application/case studies from a wide variety of real world interdisciplinary engineering problems. Owing to the interdisciplinary nature of this course, participants across the disciplines will be able to attend, appreciate and augment their knowledge to keep with the emerging advanced techniques.

OBJECTIVES

- To provide a forum for participants to obtain information about recent advances in optimization techniques.
- To highlight successful applications of optimization in interdisciplinary areas.
- To introduce modern optimization ways.
- To demonstrate case studies from a wide variety of real-world interdisciplinary engineering problems.
- To facilitate participants from various disciplines to attend, appreciate, and augment their knowledge in alignment with emerging advanced techniques.

HIGHLIGHTS

- Recent Meta-heuristics -Ant Lion Optimization
- Genetic Algorithm (GA), Swarm Intelligence, Ant Colony Optimization (ACO)
- Neural network based and fuzzy based optimization.
- AI/ML enabled Optimization Techniques
- Guidelines on publishing research papersreviewers' perspective, plagiarism checking

HANDS-ON SESSIONS

- Interactive learning through lectures and discussions.
- Implementations of case studies on Python/ MATLAB





Patron:

Prof. B.V. Ramana Reddy Director

Co-Patron:

Prof A. K. Singh Head of Department, Computer Engineering

Convener:

Dr. Ritu Garg Assistant Professor (Gr-1), Comp. Engg.

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Student Coordinators:

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WHO SHOULD ATTEND

- Faculty of engineering colleges
- Graduate students pursuing research in related areas
- Industry professionals/personnel
- Scientists working in public/private/Govt. organizations

REGISTRATION

Confirmation of eligible candidates will be on a first come first serve basis, only on receipt of duly filled registration form and registration fee.

The fee includes course kit, lecture notes and working lunch. Accommodation on request may be provided in hostel/guest house on nominal payment basis subject to the availability.

Registration Link:

https://forms.gle/GdrQfa135vF5fHZp7

FEE

Industry/ R&D personnel: ₹ 6000/-

Faculty Member from academia ₹ 5000/-

M.Tech/Research Scholar/Student ₹ 4000/-

MODE OF PAYMENT

Go to SBI Collect or click on:

https://www.onlinesbi.sbi/sbicollect,

Select Educational Institution, Select Haryana, Select Director National Institute of Technology, Kurukshetra, Select AOTEA(W)-2023, Make the payment and collect the receipt.

The <u>registration form</u> complete in all respect should be submitted latest by 11 Dec 2023 midnight.

CAMPUS:

Kurukshetra is a railway junction on the Delhi-Karnal-Ambala section of the Northern Railway. It is about 160 kms. from Delhi. The campus extends over an area of 300 acres imaginatively laid down on a picturesque landscape. It presents a spectacle of harmony in architecture and natural beauty.

REACH US:

Kurukshetra, steeped in history and mythology, is a place of great spiritual significance, where Lord Krishna, delivered the divine message of "Shrimad Bhagwad Gita". The place from where knowledge spread far and wide was chosen as his capital by King Harsh wardhana.

Map: https://maps.app.goo.gl/Bot8DoMKBn2r3BYW6

NEARBY ATTRACTIONS:

Brahamsarovar, Jyotisar, Sri Krishna Museum, Panorama, Planetarium, Sheikh Chehli Mausoleum, Pipli Zoo, Gyan Mandir, Bhadra Kali Temple

