



# International Workshop on Real-World + Optimization Using Fuzzy Set-Based Modeling Techniques (ROFT-2026)

April 20-24, 2026

Organized by

Department of Mathematics, Thapar Institute of Engineering and Technology, Patiala, Punjab

## About the Workshop

This intensive five-day workshop provides a comprehensive introduction to fuzzy set theory and its applications in optimization problems. Designed for researchers, academicians, and industry professionals, the workshop bridges theoretical foundations with practical implementations in real-world scenarios.

Participants will gain hands-on experience in handling uncertainty through fuzzy modeling techniques, learn diverse methodologies for solving optimization problems in fuzzy environments and explore cutting-edge research directions. The workshop features expert lectures from renowned international and national speakers, interactive case studies demonstrating practical applications across industries, and discussions on emerging research challenges in fuzzy optimization.

### Topics

- **Fundamentals of Linear and Non-linear Programming Problems**
- **Advanced Fuzzy Set Theories: Classical Fuzzy Sets, Intuitionistic Fuzzy Sets, Pythagorean Fuzzy Sets, and Interval-Valued Fuzzy Sets**
- **Fuzzy Linear and Non-linear Programming Techniques**
- **Multi-objective Optimization in Fuzzy Environments**
- **Fuzzy Multi-criteria Decision Making (MCDM) Methodologies**
- **Real-world Case Studies: Supply Chain Optimization, Resource Allocation, Project Scheduling, and Risk Management**
- **Emerging Research Problems and Future Directions**



## Organizing Committee

### Chief Patron

Prof. Padmakumar Nair, Vice Chancellor, TIET

### Patron

Prof. Ajay Batish, Pro Vice Chancellor, TIET

### Chairperson

Prof. Deepak Gumber, Head, DOM, TIET

### Conveners

Dr. Tina Verma, Assistant Professor, DOM, TIET  
Dr. Navdeep Kailey, Assistant Professor, DOM, TIET

### Organizing Secretaries

Dr. Sanjeev Kumar, Assistant Professor, DOM, TIET  
Dr. Pramod Vaishnav, Assistant Professor, DOM, TIET  
Dr. Jolly Puri, Assistant Professor, DOM, TIET



## About Department of Mathematics

Department of Mathematics was established as an independent unit in 2015 and serves as a dedicated academic pillar contributing to the vision and mission of TIET. The department offers an M.Sc. program in Mathematics and Computing at the postgraduate level, along with a comprehensive Ph.D. program covering diverse specializations in both pure and applied mathematics.

With a faculty strength of 42 members representing expertise across applied, pure, and computational mathematics, the department fosters an environment of academic excellence and research innovation. Several faculty members lead sponsored research projects and actively guide doctoral scholars in cutting-edge mathematical research. The department is committed to providing students with enriching learning experiences that prepare them for leadership roles in mathematics and allied fields.

### Contact Us:

For any queries join the Whatsapp group: [WhatsApp group link](#)



## About Thapar Institute of Engineering & Technology

Thapar Institute of Engineering & Technology (TIET), established in 1956, stands as one of India's premier educational institutions with a rich legacy spanning nearly seven decades. Located on a sprawling 250-acre campus in Patiala, Punjab, TIET has consistently been at the forefront of engineering education, research, and innovation.

Ranked among the top innovation-driven private universities and technical institutes in India, TIET has earned an 'A++' grade from the National Assessment and Accreditation Council (NAAC). The institute continues to provide a steady stream of highly skilled talent to both national and international sectors, maintaining its reputation for academic excellence and cutting-edge research.



## Registration Details

### Registration Fees:

(Inclusive of GST)

Students: ₹ 4130/-

Others: ₹ 5310/-

To register, fill the following form:

[Registration Form](#)

[For more details Visit website](#)

### Bank Details:

A/c name: Thapar Institute of Engineering and Technology

A/c no. : 0267104000092579

IFSC: IBKL0000267 (IDBI Bank)

Address: Tripuri, Patiala, Punjab, 147001

OR Scan the QR



### Registration Deadline: March 15, 2026

**Note:** Registration fees include free accommodation\*, Workshop kit and study materials, Daily tea/coffee breaks with refreshments, Lunch for all five days, High tea sessions with networking opportunities, a Gala dinner, and Participation certificate.

\*Limited hostel accommodation (on a first-come, first-served basis) is available on a sharing basis. Hostel mess access for breakfast/dinner: ₹75 per meal, payable at the hostel mess counter.

# DISTINGUISHED SPEAKERS

## International Experts

Dr. Ajit Kumar Verma, Professor, Western Norway University of Applied Sciences, Norway

Dr. Chunming (Victor) Shi, Professor, Wilfrid Laurier University, Ontario, Canada

Dr. Mahesh Gupta, Professor, University of Louisville, Louisville, United States

Dr. Meraj Ali Khan, Professor, Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia

Dr. S. S. Appadoo, Professor, University of Manitoba, Canada

Dr. Shahid Ahmad Bhat, Postdoctoral researcher, LUT University, Finland

Dr. Tofigh Allahviranloo, Professor, Istinye University, Istanbul, Turkey

Dr. Yuvraj Gajpal, Associate Professor, University of Manitoba, Canada

## National Experts

Dr. Anurag Jayswal, Professor, IIT Dhanbad

Dr. Arvind Kumar Gupta, Professor, IIT Ropar

Dr. C. S. Lalitha, Professor, Delhi University

Dr. Deepika Rani, Assistant Professor, NIT Jalandhar

Dr. Garima Mittal, Professor, IIM Lucknow

Dr. Manoj Thakur, Professor, IIT Mandi

Dr. Mohit Kumar, Associate Professor, IITRAM Ahmedabad

Dr. Pankaj Gupta, Professor, Delhi University

Dr. S. S. Dhaliwal, Retired Professor, SLIET Longowal

Dr. Samir Kumar Neogy, Professor, ISI Delhi

Dr. Sandeep Kumar Mogha, Associate Professor, Delhi University

Dr. Sanjeet Singh, Professor, IIM Lucknow

Dr. Shiv Kumar Gupta, Professor, IIT Roorkee

Dr. Shiv Prasad Yadav, Retired Professor, IIT Roorkee

Dr. Shivi Agarwal, Associate Professor, BITS Pilani

Dr. Sujeet Kumar Singh, Assistant Professor, ISI Hyderabad

Dr. Sumit Kumar, Associate Professor, IIM Udaipur

Dr. Suresh Chandra, Retired Professor, IIT Delhi

Dr. Trilok Mathur, Associate Professor, BITS Pilani

Dr. Vinay Kanwar, Professor, UIET, PU Chandigarh

