

ANURAG JAYSWAL

Professor of Mathematics & Computing

 www.sites.google.com/view/dranuragjayswal



RESEARCH INTEREST

Mathematical Programming

Multi-time control optimization

Non-smooth Analysis

Generalized Convexity

Vector Optimization

Variational Inequality

Robust Optimization

TOTAL PUBLICATIONS

- SCI/ESCI - 79
- Scopus - 53
- Book Chapter - 02

For Complete List of Publications. [Click Here](#)

CONTACT

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 anurag@iitism.ac.in

OBJECTIVE

To encourage creativity and higher-order thinking in a way that increases student performance.

TEACHING EXPERIENCE

Professor

Indian Institute of Technology (ISM), Dhanbad, India

August 2023 - Present

Associate Professor

Indian Institute of Technology (ISM), Dhanbad, India

Sep 2017 - August 2023

Assistant Professor

Indian Institute of Technology (ISM), Dhanbad, India

Aug 2010 - Sep 2017

Assistant Professor

Birla Institute of Technology, Ranchi, India

Aug 2005 - Aug 2010

Research Fellow

G. B. Pant University of Agriculture and Technology, Pant nagar, India

Aug 2004 - Jul 2005

Lecturer

Ghanshyam Singh Degree College, Varanasi, India

Jul 2003 - Jun 2004

ADMINISTRATIVE EXPERIENCE

Associate Dean (SIW) 2024-Present

Time Table Incharge (M&C) 2024-Present

DUGC Member 2022-2024

DUGC Convener 2020-2022

Hostel Warden 2015-2018

DFSC (M&C, Appl. Geophy., Manag. and Industrial)

Course Coordinator (M.Sc, Int. M.Tech.)

DSC Member of Several Departments

EDUCATION

2002

Ph.D.
Banaras Hindu University,
Varanasi
Thesis Title: Some contribution
to mathematical program-
ming problems with special
reference to fuzzy and goal
programming
Thesis Supervisor: Dr. Newal
Kishore (Retd.), Prof. & Head,
Department of Mathemat-
ics, Banaras Hindu University,
Varanasi, India.

1997

Post Graduation-First Div.
Banaras Hindu University,
Varanasi

1995

PGDCA-First Div.
M. Gandhi Kashi Vidhyapith

1994

Under Graduation-First Div.
M. Gandhi Kashi Vidhyapith

1990

Intermediate-First Div.
U.P. Board

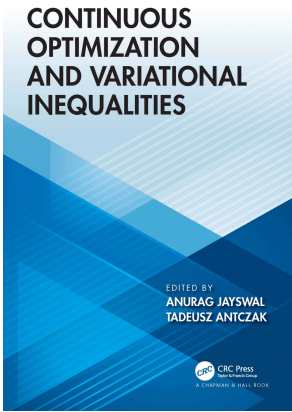
1988

High School-First Div.
U.P. Board

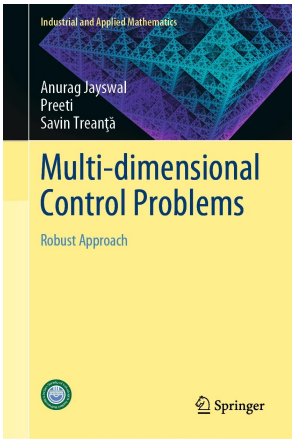
PROGRAMMING SKILLS

- Word
- Excel
- Latex
- Matlab
- C++

RECENT PUBLICATIONS



Editors: Anurag Jayswal and Tadeusz Antczak.



Editors: Anurag Jayswal, Preeti and Savin Treanta.

- Anurag Jayswal, Gaurav Uniyal, Wolfe type duality for a semi-infinite variational problem involving Caputo-Fabrizio fractional derivative, "Journal of Optimization Theory and Applications" 210:2 (2026). IF-1.9 **Q1**
- Anurag Jayswal and Ajeet Kumar, A dual based neural network model for mathematical programs having vanishing constraints with applications, "Journal of Applied Mathematics and Computing" (2026) (Accepted). IF-2.4 **Q1**
- Anurag Jayswal, Gaurav Uniyal, Lagrange duality and saddle point criteria for semi-infinite variational programming problem with Caputo-Fabrizio fractional derivative, "Journal of Applied Mathematics and Computing" (2025) (Accepted). IF-2.4 **Q1**
- Anurag Jayswal, P. Samal, J. C. Yao, LP well-posedness for multidimensional bilevel controlled variational inequalities, "Optimization" (2025) (Accepted). IF-2.36 **Q2**
- Anurag Jayswal, Gaurav Uniyal, Optimal conditions and duality results for a semi-infinite variational programming problem and its Mond-Weir dual involving Caputo-Fabrizio fractional derivatives, "Journal of Computational and Applied Mathematics" 468 (2025) 116628. IF-2.1 **Q1**
- Ayushi Baranwal, Pallabi Samal, Anurag Jayswal, Manuel Arana Jimenez, Saddle Point Criteria for Robust Isoperimetric Constrained Variational Control Problems, "Annals of Operations Research" (2025) (Accepted). IF-4.5 **Q1**
- Pallabi Samal, Anurag Jayswal and Jen Chih Yao, Well-posedness of multidimensional semi-infinite variational inequalities with applications, "Applicable Analysis" 105 (2026) 1542-1563. IF-1.2 **Q2**
- Anurag Jayswal and Ajeet Kumar, Semi-infinite interval-valued optimization problems with robust constraints, "Acta Mathematica Scientia" (2025) (Accepted). IF-1.1 **Q1**

HONORS AWARDS

AND

Young Scientist of the
Department of Science and
Technology, Ministry of
Science and Technology,
Government of India.

B.H.U. Merit Award-1997 for
having 1st rank in order of
merit in P.G. Mathematics
examination.

PROFESSIONAL MEMBERSHIP

- American Mathematical Society
- Working Group of Generalized Convexity
- Society of Applied Mathematics, ISM Dhanbad
- Indian Mathematical Society, India

RESEARCH REVIEWS JOURNALS

- 4OR
- Applied Mathematics and Computations
- Control and Cybernetika
- European Journal of Operation Research
- Information Sciences
- Journal of Global Optimization
- Journal of Mathematical Modeling Algorithm in Operation Research
- Optimization Letters
- and many more...

RESEARCH PROJECTS

Study of Multi-time Control Problem Governed by
Curvilinear Integral Cost Functional with Applica-
tions

SERB-DST-Completed

2022-2025

Study on Some Solution Methods of Vector Opti-
mization Problems

CSIR-Completed

2017 - 2020

Generalized Convexity and Its Applications to Multi-
objective Programming Problems

DST-Completed

2013 - 2016

Some Aspect of Mathematical Programming Prob-
lems Involving Generalized Convexity

UGC-Completed

2012 - 2015

Application of Generalized Convexity in Mathemati-
cal Programming Problems

IIT(ISM), Dhanbad-Completed

2011 - 2014

RESEARCH GUIDANCE

Title of Ph.D. Thesis

Ongoing

- Some study on mathematical programming problems using generalized derivatives
- Well-posedness on variational problems and variational inequalities
- Some study on interval-valued optimization problem
- Gradient based algorithm for structured optimization problem with applications

EDITORIAL BOARD MEMBER

- Advances in Nonlinear and Variational Inequality, USA
- Opsearch, Springer

VISITED INTERNATIONAL UNIVERSITIES

- Imperial College, London
- University of Florida, USA
- University of Debrecen, Hungary
- Future University, Japan
- Heidelberg University, Germany
- Pisa University, Italy

Title of Ph.D. Thesis

Awarded

- Optimality conditions and duality in mathematical programming problems with generalized convexity -(2014)
- On some mathematical programming problems -(2014)
- Some aspects of minimax programming problems with generalized convexity -(2015)
- Optimality criteria for a class of interval-valued programming problems -(2016)
- Study on optimality conditions for nonlinear programming problems -(2017)
- Mathematical models and simulation on epidemic diseases -(2017)
- Some aspects for vector variational inequalities -(2017)
- Some solution approaches to nonlinear optimization problems -(2018)
- Study of nonlinear programming problems with generalized convexity -(2019)
- Generalized convexity and optimization Problems on Riemannian manifolds -(2020)
- Penalty approach for multi-dimensional optimization problems -(2021)
- Optimization of deteriorating inventory -(2022)
- Study on optimality conditions for multi-dimensional optimization problems -(2024)

Title of M.Phil. Dissertation

Awarded

- Multiobjective mathematical programming problems involving generalized convexity -(2010-11)
- Minimax fractional programming with generalized convex functions -(2012-13)
- Symmetric duality under generalized convexity -(2013-14)
- Some study of vector variational inequality problem -(2014-15)

CONFERENCE/TRAINING ORGANIZED

- Integral Transformations, Distributions, Wavelete Analysis -December 14-18, 2015
- Nonlinear Analysis and its Application to Optimization Techniques -August

18- 22, 2017

- Nonlinear Analysis and Optimization -December 1-5, 2017
- Integral Transformations, Distributions, Wavelete Analysis and Applications -October 08- 12, 2018
- Nonlinear Analysis, Control and Optimization -July 03-05, 2025

CONFERENCE PARTICIPATED

21 national and international conferences are attended in India and Abroad.

INVITED TALKS

- In the online short-term course on Optimization Theory, Methods and Applications organized by the Indian Institute of Technology, Roorkee, India - August 18-20, 2020.
- In the International Conference on Recent Trends in Analysis and Optimization organized by the National Institute of Technical Teachers' Training and Research, Bhopal, India - November 09-11, 2020.
- In the 87th Annual Conference of IMS on Optimization Theory and Applications organized by the Jawaharlal Nehru Engineering College, MGM University, Aurangabad, India - December 04-07, 2021.
- In the International Conference on Operations Research on Game Theoretic Approach in Decision Making organized by the Indian Statistical Institute, Delhi Center, India - January 17-19, 2024.
- In the 2nd International Conference on Recent Advances in Applied Mathematics organized by the Indian Institute of Technology (BHU), Varanasi, India - July 03-05, 2024.
- In the National Mathematics Day organized by the Central University of Jharkhand, Ranchi, India - 22 December, 2024.
- In the International Conference on Computational Operations Research and Algorithmic Game Theory organized by the Indian Statistical Institute, Delhi Center, India - January 21-23, 2025.
- In the International Conference on Operations Research and Game Theory with Economic Applications organized by the Indian Statistical Institute, Delhi Center, India - January 28-30, 2026.
- In the First International Conference on Mathematical Optimization: Theory and Applications organized by the Indian Institute of Technology (BHU), Varanasi, India - March 14-16, 2026.
- In the Fifth Edition of International Symposium & International Student Workshop on Interdisciplinary Mathematics in the CiTi areas organized by the Politechnica Bucharest, Romania - June 25-27, 2026.