



PREFACE: A SPECIAL ISSUE IN HONOR OF PROFESSOR HARI MOHAN SRIVASTAVA'S 85TH BIRTHDAY AT OPTIMIZATION ERUDITORUM

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It is a distinct honor and pleasure to introduce this Special Issue of Optimization Eruditorum, Volume 2, Number 3 (2025), a collection dedicated to celebrating the remarkable mathematical career and profound global impact of Professor Hari Mohan Srivastava on the occasion of his 85th Birthday.

Professor Srivastava is globally recognized as a mathematician of exceptional caliber, whose prodigious work across disciplines—including Special Functions, Fractional Calculus, and Fixed Point Theory—has laid fundamental groundwork for many fields, including modern Optimization Theory. His dedication to rigorous analysis and his collaborative spirit have inspired generations of researchers whose work, including the contributions within this volume, stands on the analytical foundations he helped establish.

The papers in this Special Issue demonstrate the vitality and breadth of current research in optimization, spanning theoretical foundations, advanced algorithms, and real-world applications. The volume is structured around four interconnected themes:

Multiobjective and Nonsmooth Optimization: This includes the development of new numerical techniques, such as gradient-free methods for nonsmooth nonconvex multiobjective optimization, offering robust solutions for complex decision-making problems where derivatives are inaccessible.

Variational Inequalities and Fixed Point Problems: Several contributions advance the state-of-the-art in iterative algorithms for key problems in nonlinear analysis. This includes the proposal of two-step inertial methods with novel step-size rules for quasimonotone variational inequalities and the study of iterative algorithms for finding a common solution of equilibrium and fixed point problems in specialized geometric settings like Hadamard spaces.

Optimization in Functional Analysis: This area focuses on problems related to signal processing and data reconstruction, highlighted by research on the design and characterization of optimal dual frames under the Hilbert-Schmidt norm, which is crucial for robust recovery in the presence of data erasures.

Applied Optimization and Operations Research: The collection features applied mathematical modeling, exemplified by a detailed study of the Waste Collection Problem, which utilizes a hybrid mathematical model in the form of a Vehicle Routing Problem to minimize operational costs and enhance urban sustainability.

We express our deepest gratitude to Professor Srivastava for his monumental contributions to mathematics. We also sincerely thank all the contributing authors for their scholarly work and the dedicated reviewers for ensuring the high quality and rigor of this special issue.

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