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Special Issue on

Advances in Analysis, Algebra and Applied Mathematics

Guest Editors

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FOREWORD

This special issue on “*Advances in Analysis, Algebra and Applied Mathematics*” brings together contemporary research contributions addressing emerging challenges and opportunities in modern mathematics. It places particular emphasis on areas such as thermoelasticity, optimization, fractional calculus, summability theory, fixed point theory, and special functions, highlighting their theoretical advancements as well as their practical relevance to sustainable development. The volume focuses on innovative methodologies and interdisciplinary approaches, including the integration of fractional integral operators with special functions, the application of summability techniques, and the formulation of novel hybrid iterative schemes in fixed point theory. In addition, it presents significant generalizations of classical fixed point results and explores analytical frameworks relevant to thermoelastic models and optimization problems. Through these diverse contributions, the issue aims to highlight the role of advanced mathematical tools in addressing real-world scientific and engineering challenges.

This special issue comprises extended versions of selected papers presented at the *International Conference on Advancements in Mathematics for Sustainable Future (ICAMSF-2025)*, held on 11–12 September 2025 at Chandigarh University, Gharuan, Punjab, India. The conference received an overwhelming response with more than 320 research papers submissions, out of which 25 high-quality papers were carefully selected for publication following a rigorous peer-review process.

The guest editors express their sincere appreciation to all contributing authors for their scholarly efforts and valuable research papers included

in this special issue of the esteemed *Journal of Interdisciplinary Mathematics*, published by Taru Publications, New Delhi. The guest editors also extend their heartfelt gratitude to Prof. B. K. Dass, Chief Editor, for his unwavering support and guidance in the successful publication of this special issue.

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