

Journal of Information & Optimization Sciences

Volume 47, Number 5-A, May 2026

Special Issue on

Information and Optimization Techniques for Sustainable Computing (Part-A)

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Published by :



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FOREWORD

This special issue titled “Information and Optimization Techniques for Sustainable Computing”, presents rigorously peer-reviewed research contributions aligned with the fields of information sciences and optimization sciences. The selected papers highlight recent advances in intelligent algorithms, computational models, and optimization techniques that address key challenges in sustainable computing.

The papers included in this issue emphasize the central role of mathematical modeling, optimization theory, and information sciences in addressing contemporary challenges in computing, engineering, and management systems. The contributions advance both theoretical foundations and practical methodologies across areas such as mathematical programming, control theory, operational research, decision sciences, modeling and simulation, and information theory.

This special issue features selected papers presented at the International Conference on Sustainable Computing (SUSCOM-2025), organized by Sri Balaji College of Engineering & Technology, Jaipur, India, during June 26–27, 2025. The conference received more than 400 research paper submissions from researchers worldwide. All submissions underwent a rigorous peer-review process, after which 54 high-quality papers were carefully selected for inclusion in this special issue, which are being published in two parts : JIOS 47#5-A and JIOS 47#5-B. These papers cover a wide range of innovative concepts, methodologies, and applications in the field of sustainable computing and related technologies.

We extend our heartfelt gratitude to all authors for their significant contributions, to the reviewers for their meticulous evaluation, and

to the editorial team for their steadfast guidance. We are particularly thankful to Professor B. K. Dass, Chief Editor, for his constant support and encouragement during the publication process of this special issue in the *Journal of Information and Optimization Sciences*, published by Taru Publications, New Delhi.

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