

Preface

This volume presents an article collection based on research and developments addressing key challenges in materials science and engineering practice. The contributions encompass both fundamental studies and practical solutions relevant to contemporary engineering applications and were introduced at the 3rd International Conference on Recent Trends in Materials Science and Devices 2025 (ICRTMD-2025, March 24-26, 2025, Charkhi Dadri, India).

The chapters cover applied materials, geotechnical engineering, and innovative engineering research and solutions in plasma-laser interaction and hydrogen production, highlighting interdisciplinary approaches and practical methodologies that support sustainable and efficient engineering design.

This edition is designed to offer researchers, engineers, and practitioners in-depth insights into emerging trends and technological advancements across various engineering disciplines.

We gratefully acknowledge the authors for their contributions and the readers for their interest in this edition.

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