

Preface by Editors

The 1st International Conference on Advancements in Sustainable Energy, Materials, and Manufacturing Technology (ICASMMT-2024), organized by the Department of Mechanical Engineering, MLR Institute of Technology, Hyderabad, India, was successfully held on September 13th and 14th, 2024. The conference served as an international forum for researchers, academicians, and industry professionals to exchange ideas, share expertise, and discuss cutting-edge developments in the fields of Sustainable Energy, Materials, Automation and Manufacturing Technologies.

ICASMMT-2024 aimed to promote interdisciplinary collaboration, addressing the challenges and future directions in sustainable practices that drive innovations across various industries. The conference provided participants with an excellent opportunity to present their research findings, explore new applications, and engage in meaningful discussions about advancements in these rapidly evolving fields.

We were honored to have two distinguished keynote speakers who enriched the conference with their valuable insights by Prof. Dr. Norhashila Hashim, Department of Biological and Agricultural Engineering, Faculty of Engineering, University Putra Malaysia, Malaysia, and Dr. V. Balasubramanian, Professor & Director, CEMAJOR, Manufacturing Engineering Department, Annamalai University, India. Their presentations addressed significant topics in sustainable energy systems and advanced manufacturing processes, which reflects the fruitful discussions and provided participants with new research directions.

The proceedings of ICASMMT-2024 represent a collection of 15 peer-reviewed papers, selected based on their originality, significance, and clarity. These papers highlight the most recent research in sustainable energy, design and modeling, and manufacturing technologies and will be published by MATEC Web of Conferences (ISSN: 2261-236X).

We express our deepest gratitude to all the experts, authors, and participants who contributed to the success of ICASMMT-2024. Their support and active involvement were crucial in making this event a significant milestone in advancing sustainable energy, materials, and manufacturing technologies. Special thanks are due to our reviewers, sponsors, and the organizing committees for their dedication and efforts.

We look forward to welcoming even more experts and scholars to future editions of ICASMMT as we continue to push the boundaries of innovation and sustainability.

Hyderabad-India, September 2024.

Dr. Balram Yelamasetti

Dr. Tushar Sonar

Dr. Muralimohan Cheepu