

## Preface

International Conference on Recent Advances in Material, Mechanical and Civil Engineering - 2017, an international level conference aimed mainly to bring the recent advancements in the frontier areas of Material, Mechanical and Civil Engineering in to light beyond the borders of host country, India. ICRAMMCE-2017 is the pioneer to bring the three vast global leading domains, Material, Mechanical and Civil Engineering on to a single platform to exchange the views and ideas of scientific community. It was proudly organized by the esteemed departments, Mechanical and Civil Engineering of prestigious Marri Laxman Reddy Institute of Technology and Management on 1<sup>st</sup> and 2<sup>nd</sup> of June 2017 at the historical city, Hyderabad, India.

The conference was attended by four hundred and fifty participants, including outstanding scientists, academicians, industrialists, veteran as well as young researchers from recognized universities and distinguished research institutes from India and abroad. Two Plenary talks, fourteen Invited talks and two hundred and twenty contributory papers in oral and poster sessions were delivered in the fields of advanced materials, mechanical, manufacturing and civil. This volume includes selected papers presented at the 1<sup>st</sup> edition of ICRAMMCE - 2017. Following a stringent peer review process, sixty two papers were selected for publication in the volume. This volume contains peer-reviewed papers presented at ICRAMMCE 2017 and are divided under three different categories, which reflect the varied fields of research that have been addressed during this conference.

On behalf of the organizing committee, we wish to thank the keynote speakers for their contributions to the success of ICRAMCME 2017; Prof. Dr. Surendar Marya, Emeritus Professor at Ecole Centrale Nantes, France; Dr. Jean-Yves Hascoet, Ecole Centrale Nantes, France; Dr. A.C. Mathur, ISRO; Dr. Shushanth Kumar Panigrahi, Department of Mechanical Engineering, IIT Madras, Chennai; Dr. M. M. Mahapatra, Department of Mechanical Engineering, IIT Bhubaneswar, Orissa; Dr. Sai Ramudu, Department of Metallurgy and Materials Engineering, IIT Roorkee, Roorkee; Dr. Prasanth, Department of Mechanical Engineering, IIT Hyderabad, Hyderabad; Dr. T. Subbaiah, Former Chief Scientist (CSIR-IMMT).

We deeply appreciate the contributions, the competence and the dedication of the all the participants who made the conference a knowledge treasure and supported in all the ways for the grand success of the conference. We are pleased to unveil the voluntary efforts of reviewers who have played a prominent role in segregating the potential research papers and guiding the authors to improve their feats through valuable comments. It is our gratitude to acknowledge the precious time of our peer review members.

In lieu of Conference Chair, I am pleased to express my gratitude to the extended helping hands of our beloved sponsors, who give us a mountainous support for the growth of students through sponsoring this conference and Trans Tech Publication for accepting to publish the proceedings of the conference. It's my pleasure to acknowledge the efforts of organizing committee, technical committee and all others who have worked conjointly, relentlessly and spilled their sweat to make this conference a great success and a vanguard to the conference world.

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