

Preface

These proceedings contain the papers accepted and presented at the International Conference on "Recent Advances in Mechanical Engineering and Interdisciplinary Developments" held at Ponjesly College of Engineering, India, during 7th and 8th march 2014. The 200 “completed research” and “work-in-progress” papers presented during the conference are the end result of a tremendous amount of original work and a thoughtful review process. They represent the latest research work on Recent Advances in Mechanical Engineering and Interdisciplinary Developments.

A total of 465 preliminary papers were received in January 2014 under a total of 4 tracks of Applied Mechanics and Materials, Energy Efficient Technologies, Robotics and Wireless Communications and Networking. All submitted papers were reviewed over the next six weeks. Accepted papers after the review process were refined and resubmitted by February 2014. This is the first time this annual conference has utilized EasyChair as the conference system. Satisfyingly, the resulting set of accepted papers covers a variety of different mechanical areas and diverse industry sectors, in INDIA and from all around the world.

Credit must go to the track chairs, who allocated significant time of their busy schedule to carefully manage the review of papers submitted to their respective tracks. The 262 reviewers selected by the track chairs also deserve a lot of recognition. These reviewers provided over 1230 considerate reviews and recommended select papers for nominations to the conference best paper awards. The paper review process could not be completed without the dedication and expertise of track chairs and reviewers.

I would like to thank all students and faculty for their contributions to these proceedings; and I hope that the proceedings will assist in Recent Advances in Mechanical Engineering and Interdisciplinary Developments fields forward.

Proceedings Editors

Dr.K.Palanikumar
Principal / Professor
Sri Sairam Institute of Technology.

Dr.P.M. Diaz
Professor
Ponjesly College of Engineering.

Chief Editors
Dr.K.Palanikumar
Principal / Professor
Sri Sairam Institute of Technology

Dr. P.M.Diaz
Professor
Department of Mechanical Engineering
Ponjesly College of Engineering

Editors

Dr. N. Kumarappan
Secretary
IEEE, Madras Section
(Professor, EEE Dept., Annamalai
University)

Dr. Puli. Ravi Kumar
Professor
Dept. of Mech. Engg.
NIT, Warangal

Dr. T. Thyagarajan
Immediate Past Chairman
Madras Section
(Professor, Director, University lab,
Anna University)

Dr. Ramalatha Marimuthu
Chair, IEEE Women in Engg.
Committee
(HOD, IT Dept, Kumaraguru College of
Technology)

Dr. P. Suresh Chandra pal
Vice Chairman
IEEE RAS, Madras Chapter

Dr.C.G.Saravanan
Professor
Dept. of Mech. Engg.
Annamalai University

Organizing Chair
Dr.K.Maniysundar
Principal, Dept of Mechanical Engineering
Ponjesly college of Engineering

Editorial Board Co-Conveners

Dr. J. RAJEESH, Prof/ECE

Dr. E. ARUN, Prof/CSE

Dr. K. PARIMALA GEETHA,
Prof/ECE

Dr. M. MARY LINDA, Prof/EEE

Dr. P. JAGATHEESWARI,
Asso.Prof/EEE

Mr. D. S. MANOJ ABRAHAM ,
Asso.Prof/Mech

Mr. N. VIKNESWARAN, Prof/Mech

Mr. S.S. FREDERICK, AP/Mech

Mr. M. SIVARAJ, AP/Mech

Mr. J. ARON RAKKESH, AP/Mech

Mr. S.M. SHANMUGA
RAMANAN, AP/Mech

Mr. E. S. ESAKKI RAJ, AP/Mech

Mr. S. AJITH KUMAR, AP/Mech

Mr. J. MASILA JOHN, AP/Mech

Mr. M. L. BRABIN NIVAS ,
AP/Mech

Mr. C. PRAVIN TAMIL SELVAN,
AP/Mech