

# Preface

Mechanics is an area common to many disciplines of science and engineering and has made tremendous strides in recent years. The International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM) which is seventh in series at the interval of three years is aimed at bringing together academicians, scientists, engineers and researchers working in various disciplines of mechanics to exchange views as well as to share knowledge among people from different parts of the globe. We have contributions from different Engineering and Science disciplines such as Aerospace, Mechanical, Civil, Chemical, Naval Architecture, Reliability, Physics and others. The participants are from different Technical Institutes, Research Organizations and Industries from the country and abroad. This volume of proceedings includes the abstract of the keynote, the invited and the contributed research papers that will be presented during the conference. The Compact Disc (CD) containing the full length papers as well as the extended abstracts of the participants is brought out along with the hard volume.

The overwhelming response and enthusiasm for submission of technical papers from all over the globe demonstrate the popularity of the ICTACEM. However, due to several constraints such as technical quality, scopes, etc. we had to restrict ourselves to a limited number of papers and as a result we could not accommodate even the deserving ones in other fields, which were beyond the scope of this conference. We apologize for that. This particular conference being held at IIT Kharagpur organized by the Department of Aerospace Engineering during December 28-30, 2017, as mentioned above is the seventh in the series. The other six were held in the years 1998, 2001, 2004, 2007, 2010 and 2014 respectively.

The technical programme consisted of ten keynote/invited addresses by the renowned experts in their fields and about 190 research papers which have been qualified after peer review of about 300 papers, presented from a wide spectrum of fields. It is expected that the conference through the keynote, the invited and the contributory research papers will provide a unique opportunity for useful deliberation, exchange of expertise and sharing of experience to further motivate research activities in different multi-disciplines in many areas.

It is our pleasure to acknowledge a large number of individuals and groups who have really contributed in many ways in bringing the present shape of the conference and its proceedings. We are extremely thankful to the all keynote & invited speakers. The contributory authors deserve special thanks for sharing their technical research expertise by contributing to the proceedings.

We are thankful to all the members of the committee in organizing this event and reviewers for their kind help and sparing valuable time to review the contributed papers. The session chairs are specially thanked for unconditional support during the conference for smooth conduct of the technical sessions.

We are also thankful to all our student volunteers for their untiring efforts in the process of finalizing the proceedings. Efforts taken by Dr. P. K. Aditya for designing the website is commendable. We are also thankful to all the sponsors for funding this conference.

Mr. Tirthankar Paul of Cygnus Advertising deserves a special mention for bringing out the volume and the CD in an excellent form despite several constraints. Last but not the least we thank one and all who helped us to make this conference successful.

IIT Kharapur, India  
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Editors