

# Preface

The 5th International and 41st National Conference on Fluid Mechanics and Fluid Power was held in the campus of Indian Institute of Technology Kanpur during December 12–14, 2014. A total of 450 scientific participants, 275 of whom were students, attended the conference. The participants had fruitful scientific and technical discussions and exchanges that made the conference a complete success.

The overall response to the conference was quite encouraging. A large numbers of papers were received. After careful review, 397 papers were chosen for the inclusion for presentation during the conference. Among these, 286 papers were chosen for oral presentation while the rest were displayed in the form of posters. Subsequent to conference, an additional round of review was carried out. Among the presented papers, 161 papers were selected for inclusion in the published proceedings.

The papers appearing in the proceedings are distributed into 14 major parts:

1. Fundamental Issues and Perspective in Fluid Mechanics
2. Measurement Techniques and Instrumentation
3. Computational Fluid Dynamics
4. Instability, Transition, and Turbulence
5. Turbomachinery
6. Multiphase Flows
7. Fluid-structure Interaction and Flow-induced Noise
8. Microfluidics
9. Bio-inspired Fluid Mechanics
10. IC Engines and Gas Turbines
11. Transport Phenomena in Materials Processing and Manufacturing
12. MHD and EHD Flows
13. Granular Flows
14. Nuclear Reactor Thermal Hydraulics

These papers represent the most recent research on the subject. The editors would like to thank all the authors and the anonymous referees for paying attention

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The contents of these proceedings reveal the breadth of current activities in different themes related to fluid mechanics. We hope they form a useful starting point for beginners as well as practitioners in this discipline.

Kanpur, India

Arun K. Saha  
Debopam Das  
Rajesh Srivastava  
P.K. Panigrahi  
K. Muralidhar

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