

---

## Editorial

---

### G.L. Shekar

Department of Industrial & Production Engineering,  
The National Institute of Engineering,  
Mysuru, 570008, Karnataka, India  
Email: glshekar@nie.ac.in

### B. Suresha

Department of Mechanical Engineering,  
National Institute of Engineering,  
Mysuru, 570008, Karnataka, India  
Email: sureshab@nie.ac.in

### Siddharth Joshi

Centre for Nanotechnology,  
Department of Mechanical Engineering,  
National Institute of Engineering,  
Mysuru, 570008, Karnataka, India  
Email: sjoshi@nie.ac.in

**Biographical notes:** G.L. Shekar is Principal and CEO at the National Institute of Engineering, Mysuru. He was the Special Officer at the e-Learning Centre of the Visvesvaraya Technological University, Karnataka. His book, “EDUSAT: Indian Satellite in Education”, is the first of its kind in the country written from user perspective. Then President of India, Dr. APJ Abdul Kalam, released this book in Bangalore on July 23, 2004. He has received PhD from Indian Institute of Science, Bangalore, MTech from Indian Institute of Technology, Kanpur and BE in Mechanical Engineering from National Institute of Engineering, Mysuru. His research interests are in application of nanomaterials, systems modelling and decision support systems in operations management with applications in capacity planning and production scheduling. A recipient of gold medal for his doctoral thesis, he has many papers and popular articles published in national and international journals.

B. Suresha is a Professor of the Department of Mechanical Engineering, Dean-Research & Development at The National Institute of Engineering (NIE), Mysuru, and Head, Centre for Composite Materials Research. He obtained his BE Mechanical Engineering from NIE, Mysuru (1987), University of Mysuru, Mysuru, MTech in Machine Dynamics (1995) from IIT Madras, and PhD (2007) from PSG College of Technology, Coimbatore, Anna University, Chennai, Tamilnadu. His fields of interest are microstructure-property correlations in micro, nano-fillers filled polymer matrix composites. He has authored about international/national 105 journal publications and 135 international/national conferences. He has published two book chapters, namely “Effect of micro-filler addition on physico-mechanical properties of glass fabric reinforced epoxy composites system”, in book titled

*Recent Advances in Composites and Nano Composites* and “Mechanical and abrasive wear behaviour of carbon-epoxy composite with and without graphite filler” in book titled *Issues in Materials and Manufacturing Research*.

Siddharth Joshi is an Associate Professor of the Mechanical Engineering Department and Head, Centre for Nano-Technology, National Institute of Engineering, Mysuru, India. He received PhD in Physics from the Physics Department, University Siegen, Siegen, Germany in 2008. He was Post-Doctoral Fellow at University Bayreuth, Bayreuth, Germany. He was also a Euro-talent fellow at The Atomic Energy Commission of France, Saclay, France. He has published about 12 International/National Journal publications and 30 international/national conferences and one book chapter. Some of his research goals are directed toward understanding the role of structure and morphology on the properties of advanced functional polymers and inorganic semiconducting materials. It will cover the structure properties, surface interface science, metal oxides sensors, soft-matter physics, nanoscience and technology.

---

It is a great pleasure for us to write the editorial for the special issue of *International Journal of Nanotechnology* which focuses on multidisciplinary source of information in all subjects and topics related to nanotechnology. The special issue comprises the latest development in nanotechnology in India and Canada, presented papers during the *Second Indo-Canadian Symposium on Nanoscience and Technology (ICSNST 2016)*, which was held on 18–19 February, 2016, jointly organised by The National Institute of Engineering, Mysuru, India and McMaster University, Canada.

The aim of the *ICSNST 2016* was to provide a forum for discussing innovative research and development in the field of nanoscience and technology, and provide a platform for open discussion of fundamental and applied research in the areas of nanomaterials and nanofabrications, nanotechnology for energy and environment, functional materials, nanoscale characterisation, nano-bio interface and nanomedicines, nanocomposites and applications. At the same time *ICSNST 2016* aimed to inspire students to participate and engage in the discussions with scientists on nanoscale science and technology, and to form a collaborative network. The Symposium was organised in the spirit of the previous *ICSNST 2013 Symposium*, with the active participation of the Indian and Canadian professors, scientists, and research scholars. The conference consisted of seven plenary talks, 10 invited talks, and 24 oral presentations as well as 30 poster presentations.

Twenty two quality papers have been selected to form this special issue on the following themes: nanomaterials and nanofabrications, nanotechnology for energy and environment, functional materials, nanoscale characterisation, nano-bio interface and nanomedicines, nanocomposites and applications. We believe that the selected papers reflect the great efforts made by Indian and abroad research groups and the high quality of investigations in this interdisciplinary field of nanotechnology.

The guest editors would like to thank the Editorial Board of the *International Journal of Nanotechnology*, and especially Dr. Lionel Vayssieres, the Editor-in-Chief of the IJNT, for accepting our request to publish this special issue. We would also like to appreciate and thank all the authors who have contributed to this special issue and to reviewers for their critical review of all the papers.