
GUEST EDITORIAL

International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN-2017)

Nanotechnology is an interdisciplinary field at the intersection of physics, chemistry, mathematics, engineering, medicine, biomedical engineering, materials science, and number of other disciplines. Extensive research on synthesis, processing, and fabrication of nanomaterials has been done over the past decade to develop new and efficient smart materials and devices. It is well known that materials exhibit some unique properties at the nanoscale, completely different from the properties of bulk materials. Bulk silver is non-toxic, whereas silver nanoparticles show antimicrobial activity. There is an immense potential to improve devices if material properties at the nanoscale could be understood and designed by controlling the assembly of small structures. Current applications of nanoscience and nanotechnology exist in areas such as electronics, automobile, pharmaceuticals, textiles, polymers, optoelectronics, agriculture, and space technology.

The International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN-2017), held March 16–18, 2017 at Sikkim Manipal Institute of Technology in India, explored recent trends related to design and developments of advanced nanomaterials, bio-materials, composite materials, surface engineering, electronic devices, energy harvesting, biomedicine, sensing, environment, and security, and their applications. Research carried out in universities, academic institutes, and private and public research organizations was shared at the conference. The conference was organized to critically understand the structural properties, devices, and systems by controlling shape and size at the nanoscale. It offered a dynamic platform for interaction among researchers from science, engineering, medicine, and management to come together and discuss the emerging trends and future growth potential in nanotechnology.

This issue of JMEP presents selected papers from the conference following full peer-review by independent reviewers. As Convener of the conference and special issue editor, I sincerely acknowledge the contribution of all authors of papers included in this issue and all reviewers for their constructive comments. I wish to thank Mary Anne Fleming, Diane Whitelaw, Emily Glorioso, Beverly Musgrove, and JMEP Editor, Dr. Rajiv Asthana, for their valuable help and cooperation.

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