



Emerging Mechanical Technology — Macro to Nano (EMTM2N-2007) *Proc. of the Intl. Conf. on*

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EMTM2N-2007 was conceived to provide a common platform for knowledge dissemination for researchers, academicians practitioners, industries and students across the globe working in Nanotechnology, MEMS and Robotics area. All physical systems from automobiles to aircrafts, rockets to space stations, artillery to household appliances, industrial equipment and machinery, require mechanical technologies to manufacture them. The mechanical technology, being the oldest as well as the primary technology for making anything and everything that is man-made (useful devices, objects, machines etc.), is undergoing a sea change in the present era. We are moving from macro sizes to nano size and the emerging mechanical technologies required to go from macro to micro to nano, that is robotics, MEMS (micro-electro mechanical systems) and nanotechnology, need understanding of new concepts, materials and manufacturing methods. The advantages offered by these new technologies are enormous and if we are able to harness them, the scenario of the mechanical technology in the service of mankind at all levels is going to change.

The theme of EMTM2N-2007 was developments and need of the technological capability to manipulate matter at the macro to nano (atomic) scale and to build complex devices to precise specifications. Current technologies that need attention in this direction are not to be perceived as only newer fields of micro and nanotechnology. The manufacturing at macro, micro and nano level needs to evolve to incorporate and benefit from the technological advances and developments in electronics and computers. All the papers were peer reviewed based on full-length paper and were scored on quality, originality, and relevance by the experts in the field and the selected papers are included in this volume. The conference features brief glimpses of above topics and for the convenience of readers, the papers and keynotes have been collated in to the follow groups:

- ◆ Nanotechnology & Nanoscience
- ◆ Micro Electro Mechanical Systems
- ◆ Robotics, Mechatronics, Intelligency, Mechanism and Manufacturing
- ◆ Poster presentations



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