

Proposal for Special Session International Conference on Intelligent Systems Design and Applications (ISDA), Nov 27-29, 2012, Kochi, INDIA

Title of the Special Sessions-Nano Scale Electronic Design and Applications

Rationale of the need and objective of the session

Aggressive scaling of semiconductor process technology over the last several decades has resulted in creation of many new products, such as camera, tablets, smart phones and information appliances. The trend is expected to continue for the coming years and create countless opportunities and challenges. Recent developments in semiconductor industry show a rapid increase in chip frequency and design complexity. Introduction of newer technologies is now moving towards a two year cycle as compared to traditional three year cycle. Though technology scaling helps in addressing design complexity and performance trends, it opens up a whole new spectrum of design validation challenges. The session will be dedicated to ascertain the prospects, progress and challenges in Nanoscale Electronics Devices and their Applications.

Specific topics of interest

- Nanoscale Device Modeling
- Power Aware Design
- Nano level Wireless Communication
- Organic Thin Film Transistor Applications
- Testing of Nano Scale Electronics Designs
- Reliability and Fault Tolerance
- On Chip Interconnects
- Nanoscale Transistor Design, Fabrication and Applications
- Carbon Nanotube Based Applications
- Silicon Nanowire
- Sensors and Actuators
- Nano Scale Memory Design
- Emerging Nano Level Technologies

Short biography of the proposed session chair (s)

Brajesh Kumar Kaushik received his BE degree in Electronics and Communication Engineering from C.R.State College of Engineering, Murthal, Haryana in 1994. He did his MTech in Engineering Systems, from Dayalbagh Educational Institute-Agra, in 1997. He obtained PhD under AICTE-QIP scheme from IIT Roorkee, India. He served Vinytics Peripherals Pvt. Ltd., Delhi as Research & Development Engineer. He joined Department of Electronics and Communication Engineering, G.B.Pant Engineering College, Pauri Garhwal, as Lecturer in 1998, where he later served as Assistant Professor from May, 2005 to Dec, 2009. Presently, he is serving as Assistant Professor in Department of Electronics and Computer Engineering, Indian Institute of Technology-Roorkee. He has published more than 97 research papers in

national and international journals and conferences. His research interests are in Electronic simulation, Low power VLSI Design, Microprocessor based system design and Digital Signal Processing. He is reviewer of many international journals such as IEEE Transactions on Circuits and Systems, IEE Journals, International Journal of Electronics, Elsevier Journals, Emerald etc. Presently, he holds the position of Editor in Chief of International Journal on VLSI and Embedded System (IJVES) and International Journal of VLSI Design & Communication Systems (VLSICS). He also holds the position of Editor of Journal of Electrical and Electronics Engineering Research, Academic Journals. He has received many awards and recognitions from International Biographical Center (IBC), Cambridge, Great Britain such Top 100 Scientists in World- 2008, Leading Scientist of the World- 2008, International Scientist of the Year for 2008, IBC Foremost Scientists of the World-2008, Leading Educators of the World 2008, IBC Foremost Educators of the World 2008, IBC International Educator of the Year 2008. His name has been listed in Marquis Who's Who in Science and Engineering® and Marquis Who's Who in the World®.

List of potential reviewers panel, including, affiliations and contact information

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