# Call for Papers

## Special Session on

## Nano-Scale Electronic Devices and Modern Active Devices

The Nano-electronic devises are so small that transport and optical processes in semiconductor nanostructures such as quantum wells, quantum wires and quantum dots need to be studied extensively. Current research on this area is based on, single-electron charging and spin effects in quantum dots, modeling of nanocrystal floating gate flash memory devices, nanoscale Si MOSFET's, novel bio-nano-electronic devices, carbon nanotubes and graphene nanostructures as well as new 2D nanoscale materials such as transition metal dichalcogenides (TMD) as MoS2. One other popular area in devices is modern active devices and their application in analog electronics. Because of the well known limitations of conventional devices such as gain bandwidth trade off and finite slew rate, researchers have focused attention on alternative analog circuit building blocks with a view to overcome these difficulties while still matching the versatility of conventional devices in synthesizing various types of analog functions. This session is mainly aimed to cover the recent innovations, trends, practical challenges and possible solutions in the field of nano-electronic devices, modern active devices and their applications.

The topics of interest of this special session of SPIN 2016 include but are not limited to

- Nano-electronics and single electronics and computational nanotechnology
- Device modeling, microelectronic and photonic device modeling
- Quantum nanostructures for electronics and photonics
- Bio-nano-electronic devices
- Semiconductor electronic devices, semiconductor lasers and photonic devices
- Semiconductor and novel 2Dmaterials (Graphene and TMD)
- Modern active devices and applications, current mode/voltage mode/mixed mode circuits

**Instructions for Authors**- the researchers and practitioners in the area of **Nano-Scale Electronic Devices and Modern Active Devices** are invited to submit their original, unpublished research work in not more than 6 pages of IEEE two column format.. Author can use Microsoft Word or Latex for preparing their manuscripts. The required templates can be download from SPIN-2016 website (www.amity.edu/spin2016)..

**Submission-**

Full paper in IEEE format will be submitted through online paper submission process (Easy chair submission) latest by 7th November 2015.
https://www.easychair.org/conferences/?conf=spin2016

**Organizers:**

**Convener**: Prof. Jean-Pierre Leburton, Beckman Institute for Advanced Science& Technology, University of Illinois

**Co-Convener**: Dr. Mayank Srivastava, Amity University, Noida.