IEEE Nanotechnology Council’s NMDC 2018 conference will bring together key researchers from every sector in the nanotechnology research field, with a special focus on Materials and Devices.

Conference papers will be published in IEEE Xplore. Best paper awards will be given in several categories at the conference banquet. Authors of selected papers will be invited to submit their extended article version to: IEEE Transactions on Nanotechnology, and IEEE Nanotechnology Magazine.

NMDC 2018 is soliciting papers and sessions on Materials and Devices for heterogeneous Nanoscience and Nanotechnology systems.

**The topics include but are not limited to:**

1.0 **Materials & Devices for:**
   1.1 Nanoelectronics, e.g. SETs, Memristors, QCAs, NanoCMOS
   1.2 Nano-Optics/Photronics/Optoelectronics
   1.3 Metamaterials & Plasmonics
   1.4 Energy harvesting and storage
   1.5 MEMS/NEMS
   1.6 Spintronics
   1.7 Nano-Biomedicine
   1.8 Nanorobotics and nanomanufacturing
   1.9 Nanonetworks

2.0 **Properties, Fabrication and applications of**
   2.1 Graphene, CNTs, Nanodiamond and Nanowires
   2.2 Semiconductors, e.g. Organic, Oxides, III-V
   2.3 2D Materials (MoS2, hBN, etc)
   2.4 Nanosensors and Nanoactuators
   2.5 Quantum dots & Nanoparticles (0-D)
   2.6 Nanomagnetics and Passive Devices
   2.7 Thin Films and Nanocomposites

3.0 **Special Applications**
   3.1 Nano-fluidics and integrated bio-chips
   3.2 DNA Nanotechnology
   3.3 Nano-Metrology/Characterization
   3.4 Environment, Health & Safety

4.0 **Nanotechnology, Nanostructures and Nanosystems**
   4.1 Nanopackaging, Interconnects, and Reliability of nano-chips
   4.2 Reliability and other thermal issues in nano-structures and nanosystems
   4.3 Standards and safety issues of nanotechnology
   4.4 Synthesis and modification

5.0 **Modeling & simulation of nano-devices and nano-structures**

6.0 **Emerging topics in nano-materials, -devices and -structures**

7.0 **Education in nanotechnology**

**Important Dates (2018)**

- Special Session proposals: **May 1**
- Abstract submission: **May 30**
- Papers submission: **June 11**
- Authors notification: **July 25**
- Final manuscript: **August 15**


**Organizing Committee**

**General Chair**
Jim Morris, Portland State U, USA

**Technical Program Chair**
Malgorzata Chrzansowska-Jeske, Portland State U, USA

**Special Sessions Chairs**
Antonio Di Bartolomeo, Universita' Studi di Salerno, Italy
Martin N. Wybourne, Dartmouth College, USA

**Finance Chair**
Lee Oien, IEEE Oregon, USA

**Awards Chair**
Xiaoning Jiang
North Carolina State Univ, NC, USA

**Publicity Chair**
Megumi Kawasaki
Oregon State U., USA

**Publications Chair**
Ed Perkins, IEEE NTC, USA

**Local Arrangements Chair**
Marilyn Mackiewicz, Portland State U, USA

**Technical Program Committee**

**International Advisory Committee**

**Venue**

**Become a Patron or Exhibitor**