IEEE Nanotechnology Council Opportunities Update

October 2018

IEEE NTC Has the Following Opportunities Available:

- Call for 2019 DLs - extended to 31 October
- Call for Proposals for IEEE NANO 2021and NMDC 2020 - extended to 2 November
- Request for Proposals - 2019 Summer School on Nanotechnology
- 2018 1st International Symposium on Micro/Nano Sensors for Healthcare and Smart City

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Call for Journal papers:

- IEEE Transactions on Nanotechnology (TNANO) Special Section/Issue on the 18th IEEE International Conference on Nanotechnology (IEEE-NANO 2018)
- IEEE Transactions on Nanotechnology (TNANO) Special Section/Issue on the 13th IEEE Nanotechnology Materials and Devices Conference (IEEE 2018 NMDC)
- IEEE Journal on Exploratory Solid-State Computational Devices and Circuits - Special Issue on Nonvolatile Memory for Efficient Implementation of Neural/Neuromorphic Computing

Seeking proposals for future sites for IEEE NANO 2021 and for IEEE NMDC 2020

Deadlines extended to 2 November

IEEE NANO 2021:

The annual IEEE International Conference on Nanotechnology is the NTC's flagship event. The conference scope covers a wide range in nanoscience and technology. In particular, it covers nanofabrication, nanomanufacturing, nanomaterials, nanobiomedicine, nanoenergy, nanoplasmonics, nanoelectronics, nanosensors and nanoactuators, characterization and modeling of nano structures and devices. Research in both experiments and simulation is reported. Industry is encouraged to present its research projects. NANO 2018, 2019 and 2020 will be held in Cork, Ireland; Macau, China; Montreal Canada respectively.

We are now seeking proposals for **NANO 2021** which is expected to run in IEEE Regions 8 (Europe). NANO should be run at the end of July, preferably in the last week.

Candidates for NANO 2021 will be expected to present their proposal at the November NTC ExCom meeting. (The presentation can be done remotely, online.)

Proposal deadline: ***(extended)***

- NANO 2021: ***2 November 2018***

Submit proposals or indications of interest using the format outlined here.

IEEE NMDC 2020:

The Nanotechnology Materials and Devices Conference (NMDC) aims to develop a critical assessment of existing work and future directions in nanotechnology research from every sector in the nanotechnology research field, with a special focus on materials and devices. NMDC 2018 and 2019 will be held in Portland, Oregon USA, and Stockholm, Sweden respectively. Past locations of the NMDC have been in Asia (Korea, Japan, Taiwan, Singapore), USA (California, Michigan, Hawaii, Alaska), and Europe (Sicily, France).

For conference history see http://www.ieeenmdc.org/

Candidates for NMDC 2020 will be expected to present their proposal at the November NTC Excom meeting. (The presentation can be done remotely, online.)

Proposal deadline: ***(extended)***

- NMDC 2020: ***2 November 2018***

Submit proposals or indications of interest using the format outlined here.

Proposals must be e-mailed prior to the appropriate deadline to NTC Vice-President for Conferences Guangyong Li, (GUL6@pitt.edu) with copies to Ed Perkins, NTC Secretary (e.perkins@ieee.org).

Request for proposals for the 2019 IEEE Summer School on Nanotechnology

History: The IEEE Nanotechnology Council (http://ieeenano.org/about) sponsored its first Summer School Program on "Regenerative Nano-Medicine: From Advanced Delivery Systems to Electronic-Based Devices" at Tel-Aviv University, Israel, in June 2016. In the next years, Summer / Fall schools have focused on "N3: Nanomaterials, Nanotools, and Nanodevices" [Montreal, Canada], "Nanoelectronic technologies and devices: From basic principles to highly reliable applications" [Toulouse, France], "Nanotechnology: From Science to Systems and Beyond" [Bangalore, India], and "Nanotechnology for Energy" [Portland, USA]. These schools have been highly successful in educating and training a multinational audience of students, post-docs, and other early career researchers in their chosen topical area. Through this current announcement, the council seeks to continue this important initiative into its fourth year.

Call for proposals and its thematic areas: The IEEE Nanotechnology Council (NTC), in partnership with member societies of NTC, the Electron Devices and the Circuits and Systems societies (EDS and CAS), is requesting proposals for its Sixth Summer School. The school is expected to maintain an educational focus on nanotechnology, which may range from fundamentals in nanomaterials, nanofabrication and nano-characterization to diverse application areas such as nanosensors, nanoactuators, nanobiology and nanomedicine, nano-optics, nanorobotics, nanobiology, nanoelectronics, nanophotonics, DNA nanotechnology, nanomanufacturing, nanopackaging, nanofluidics, nanomagnetics, nano/molecular heat transfer & energy conversion, nanoscale communication and networks, nano/molecular sensors, actuators, and systems, and spintronics.

The Summer School may address the needs of a diverse target audience involving senior undergraduates, graduate students, post-docs, researchers and practitioners at the early stages of their careers, who are eager to broaden and/or deepen their skills in nanoscience and nanotechnology. Based on the success of the Summer School initiatives over the preceding years, it is expected that the attendance at the school will be around 50 participants.

The schools are expected to deliver **highly differentiated programs** in their chosen topical area with content delivered by **global leaders and thinkers** from academia, industry, and/or research laboratories. The schools may design a program that either:

(i) introduces a broad field to a target audience that is new to the topic and has no prior background, or
(ii) offer an in-depth training on a specialized topic such as nano-energy or graphene electronics to a target audience with some prior introduction to the chosen area.

While proposals are encouraged to design programs in either aspect, the **primary goal** in both cases must be to educate, train and raise awareness among next-generation researchers / academicians to technological advances, societal impacts, and career avenues in these rapidly evolving fields, and to foster participation in the adventure of research that will lead to the next generation of nanopioneers.

***Dates and Length*: The sixth IEEE Summer School on Nanotechnology will be held in the summer of 2019**. We expect the summer school to be offered every year thereafter, subject to continued availability of funding. The summer school is anticipated to involve a **5-day program**, although slightly longer or shorter durations may be acceptable in certain cases.

Important Dates:

- Eligible period: **May to September 2019**
- Deadline for submitting the proposal: **30 November 2018**
- Notification of the outcome of the review process: **31 December 2018**

To find out more and how to submit a proposal, see the announcement here.

2018 1st International Symposium on Micro/Nano Sensors for Healthcare and Smart City

Date: December 10, 2018
Location: Hong Kong
Sponsors: Hong Kong Science and Technology Parks Corporation; IEEE Nanotechnology Council

Call for papers/presentations:
In a time when businesses and consumers are increasingly looking to translate the physical world into digital format, the proliferation of small, durable and sophisticated sensors is playing an expanding role in robotics, artificial intelligence, IoT, electronics, and healthcare applications. Significant progress in MEMS and Nanotechnology have enabled the manufacturing of a new

generation of sensors, which opened up a whole host of markets and opportunities yet to be fully explored.

This symposium will bring together global professionals from academia and industry to discuss the latest emerging sensor technologies and how innovative sensors and sensing solutions can be applied to real-life applications.

This symposium will highlight:

- Emerging sensor technologies
- Applications of intelligent sensing devices for robotics, artificial intelligence, IoT, electronics, healthcare, and other new areas
- Challenges and opportunities for the sensor industry

Any questions, please contact the conference organizer *candy.cheng@hkstp.org*