

# Newsletter | August 2019



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# **Editor's Note**

This issue brings you the latest updates and activities in the IEEE-NTC community. I am also extremely proud to share that the IEEE NTC is currently the largest IEEE council with more than 7000 members of established and young researchers. I hope you enjoy this issue and do let us know if there is any topic you'd like to see covered in the future issue.

Jr-Hau He

King Abdullah University of Science and Technology
EiC Newsletter & Web Content

# **NTC News**

# **IEEE NTC Elects 2020 Officers**

The IEEE Nanotechnology Council (NTC) elected new officers at its Annual Meeting held 23 July in Macau in conjunction with its 2019 International Conference on Nanotechnology (IEEE NANO).

Representatives of the twenty-two IEEE Societies who are Council members gather annually to conduct Council business and elect officers. This year the

Vice-President for Technical Activities 2020-21 and Vice-President for Publications for 2020-21 were elected.

Dr. Kremena Makasheva, Senior Researcher at the French National Center for Scientific Research (CNRS), LAPLACE laboratory, Toulouse, France was elected as Vice-President for Technical Activities 2020-21.



# Prof. Fabrizio Lombardi,

International Test Conference (ITC) Endowed Chair at Northeastern University, Boston was elected Vice-President for Publications 2020-21.

Both positions are effective as of 1 January 2020.

Click **here** for more information.

# **Call for Nominations**

# **Editor-in-Chief Opportunities**

The IEEE Nanotechnology Council (NTC) invites nominations for the following positions:

#### **Editor-in-Chief of IEEE Nanotechnology Magazine**

The nomination/application deadline has been extended to **30 August 2019**. Please submit nominations or applications to Jin-Woo Kim, NTC Vice President-Publications, via email to **jwkim@uark.edu**. Click **here** for more details.

#### **Editor-in-Chief of Transactions on Nanobioscience**

**Deadline extended!** Nominations and applications will be accepted until a suitable candidate is selected. Nominations/applications can be uploaded **here**. For full consideration please send all information as soon as possible to **tnbeditorsearch@ieee.org**. Click **here** for more details.

# **Editor-in-Chief of Transactions on Nanotechnology**

The deadline for nominations and applications is **15 October 2019**. Please submit nominations to Jin-Woo Kim, NTC Vice President-Publications, via email to **jwkim@uark.edu**. Click **here** for more details.

# **Distinguished Lecturers**

# **IEEE Nanotechnology Council Distinguished Lecturers for 2019**

The IEEE Nanotechnology Council (NTC) has appointed its Distinguished Lecturers for 2019. Talks by NTC Distinguished Lecturers can be requested by IEEE student branches; NTC or member Society Chapters; NTC and member Society Conferences; conferences of other IEEE Societies not members of the NTC for major plenary/keynote (based onavailability of funding). Please contact the presenter directly to arrange for a presentation. The talk will also include an introduction of the IEEE Nanotechnology Magazine. Part of the effort is to promote the magazine to students.

# **Distinguished Lecturers 2019:**

# **Dominique Baillargeat**

University of Limoges, France

Distinguished Lecturer Talk Title: 3D Radio-Frequency to millimeter wave heterogeneous system integration: Emerging nanotechnology for RF nanopackaging, the link between nanoscopic and macroscopic worlds?

#### Jr-Hau He

King Abdullah University of Science and Technology, Jeddah, Saudi Arabia Distinguished Lecturer Talk Title: Toward Highly Efficient Solar Water Splitting: A Concurrent Electrical, Optical, and Catalytic Design

#### Samir Igbal

Professor and Chair, Department of Electrical Engineering, School of Medicine University of Texas, Rio Grande Valley, USA

Distinguished Lecturer Talk Titles: Nanotextured Microfluidic Substrates to Interface Living Systems; Cancer Nanotechnology; Nanotextured Materials for Selective Biosensing

# **Xiaoning Jiang**

North Carolina State University, Raleigh, NC USA

Distinguished Lecturer Talk Title: Nanoacoustics: Materials, Devices and

#### **Chenzhong Li**

National Science Foundation, Alexandria, VA, USA

Distinguished Lecturer Talk Title(s): Biomedical Devices for Nano-Theranostics; Bioelectronic and Biosensors-From Cell on a Chip to Point of Care Testings; NanoBiosensing Research-Challenges, Opportunities, and Perspectives From USA National Science Foundations; Abstract: Biomedical Devices for Nano-Theranostics

#### Seiji Samukawa

Institute of Fluid Science, Tohoku University, Sendai, Japan

Distinguished Lecturer Talk Title: Creating Green Nanostructures and

Nanomaterials for Advanced Energy Nanodevices

#### Subramanian Sankaranarayanan

Argonne National Laboratory, Argonne, IL USA

Distinguished Lecturer Talk Title: Bridging the electronic, atomistic and mesoscopic scales in materials modeling using machine learning

#### **Prof. Ved Ram Singh**

National Physical Laboratory (NPL), New Delhi, India

Distinguished Lecturer Talk Title(s): Nano-sensor technology with IoT; Advanced nanosensors and systems for u-health care; Nano-Cancer Technology: New Diagnostic and Therapeutic Devices

#### **Dmitri Strukov**

ECE Department, UC Santa Barbara, Santa Barbara, CA

Distinguished Lecturer Talk Title: Recent Results and Future Prospects for

Mixed-Signal Neuromorphic Inference Accelerators

#### Xiao Wei Sun

Department of Electrical and Electronic Engineering, College of Engineering, Southern University of Science and Technology, 1088 Xue-Yuan Road, Nanshan District, Shenzhen, Guangdong 518055, China Distinguished Lecturer Talk Title: Colloidal Quantum Dots for Energy-Saving Quality Displays and Lighting

For a full list, click **here**.

# **Awards & Recognitions**

# **Call for Awards Nominations**

Nominations are being solicited for the IEEE Nanotechnology Council's 2019 Awards. *These are due by 1 October 2019.* 

Award categories are Early Career, Pioneer and Distinguished Service.

#### 1. PIONEER AWARD IN NANOTECHNOLOGY

The NTC Pioneer Award in nanotechnology is to recognize individuals who by virtue of initiating new areas of research, development or engineering have had a significant impact on the field of nanotechnology. The award is intended for people who are in the mid or late portions of their careers, i.e., at least 10 years beyond his or her highest earned academic degree on the nomination deadline date.

#### 2. EARLY CAREER AWARD IN NANOTECHNOLOGY

The Nanotechnology Council has established an Early Career Award to recognize individuals who have made contributions with major impact on the field of nanotechnology.

#### 3. DISTINGUISHED SERVICE AWARD

Nanotechnology Council to establish a Distinguished Service Award to recognize an individual who has performed outstanding service for the benefit and advancement of Nanotechnology Council.

See the **NTC Award Nominations** page for full description and nomination form.

Nominations are due by 1 October 2019.

# **2019 NTC Award Winners Announced**

The IEEE Nanotechnology Council announces its 2019 Award Winners. Awards were presented at the IEEE Conference on Nanotechnology (IEEE-NANO 2019) in the Parisian Macao, in Macau, China.

Congratulations to the NTC Individuals Award winners! Click **here** for more information.

# **Early Career Award**

# **Prof. Han Wang**

University of California "For his key contributions to the study of black phosphorus and other two-dimensional materials, and their electronic and photonic applications"



# **Pioneer Award**

#### **Prof. Paul Weiss**

University of California
"For exploring the ultimate limits of
miniaturization and function and championing
nanotechnology worldwide"



# **Distinguished Service Award**

#### **Prof. Fabrizio Lombardi**

Northeastern University

"For exceptional devotion to the duties and outstanding performance as the Editor-In-Chief of IEEE Transactions on Nanotechnology"



**Nanotechnology Council 2018 Technical** 

# **Committee Award**

Article by Dr. M. F. Fréchette, NTC Vice-president Technical Activities

It is my pleasure to announce that the 2018 IEEE Nanotechnology Council (NTC) TC AWARD was given to the Technical Committee (TC) on Nanoacoustic devices, Processes and Materials. This committee was chosen based on their 2018 achievements. During that time, the committee's work was guided by Professors Xiaoning Jiang and James Spicer.



The main objective of this technical committee is to promote the activities associated the emerging with and interdisciplinary frontier of nanoscale acoustics, promoting scientific discoveries and engineering developments in materials, design, fabrication, and device applications.

committee has now been renewed for the next 4 years.

For full details, click here.

# **Chapters**

# **Chapter News**

The IEEE Nanotechnology Council (NTC) has professional and student chapters established in several countries. We are pleased to announce the new chapters formed this year.

#### **SECTION CHAPTERS**

- 1. Chicago Section Chapter, NANO42
- 2. Western Saudi Arabia Section Nanotechnology Council

#### **STUDENT CHAPTERS**

1. Malaviya Natl Inst of Tech IEEE Nanotechnology Council Student Branch in the Delhi Section

# 2. Catholic University of Colombia

The first seminar hosted by Prof. Jr-Hau He in the IEEE Western Saudi Arabia Section.



Publishing Advanced Materials Science – How to maximize your success!

By Dr. Jos Lenders, Deputy Editor, Advanced Materials, Wiley

Date: 2019-07-09

For the full list of NTC chapters, see <a href="https://ieeenano.org/chapters/">https://ieeenano.org/chapters/</a>

IEEE NTC has begun a three year initiative to increase significantly the number of NTC Chapters worldwide. If you are interested in starting an NTC Chapter, contact the Chapters Chair, **Nick Massetti**. He will help you with the petition process and chapter startup activities. NTC can also provide startup funding before year-end for initial activities. Support is also available to train new chapter officers on the use of IEEE resources such as vTools to facilitate activities.

# **Conference Highlights**

For full details on any of the 2019 NTC conferences, visit https://ieeenano.org/conferences/conferences-2019/.

# **IEEE NAP-2019**



#### Registration is now open for NAP-2019!

NAP-2019 is one of the largest nanoconferences in Eastern Europe, with 38 Internationally renowned Plenary, Keynote & Invited Speakers.

# **Program Topics:**

- Thin Films & Coatings
- Surface Science & Imaging at Nanoscale
- Magnetic & Electronic Materials & Nanodevices
- Photonics & Nanomaterials
- Nanomaterials for Energy & Environment Biomedical Applications
- Theory & Modeling of Nanoscale Systems
- Interdisciplinary Topics

Location: Odessa, Ukraine

Dates: 10-15 September 2019

General Chairs: Alexander Pogrebnjak (Sumy State University, Ukraine),

Valentyn Novosad (Argonne National Laboratory, USA)

Website: https://nap.sumdu.edu.ua/index.php/nap/nap2019

More details can be found here.

# **IEEE NMDC 2019 - Call for Papers**



# **IEEE NMDC 2019**

Stockholm, Sweden | 27-30 October https://www.nmdc2019.conf.kth.se/

Early-bird registration is open until 10 September 2019.

The conference program (first version) is now available for download **here**. The confirmed plenary speakers and invited speakers can be found:

• Plenary speakers

• Invited speakers

**Location:** The Brewery Conference Centre, Stockholm (Sweden)

**Dates:** 27-30 October 2019 **General Chairs:** Jan Linnros

Website: https://www.nmdc2019.conf.kth.se/

**Full Papers Due:** 10 September 2019 **Early Registration:** 10 September 2019

More details can be found here.

# **IEEE-NSENS 2019**



The 2nd IEEE International Conference on Micro/Nano Sensors for AI, Healthcare, and Robotics (IEEE-NSENS 2019) will be held from Oct. 31 to Nov. 02 2019 in at Sheraton Shenzhen Futian Hotel, Shenzhen, China.

#### **Important Dates:**

**Abstract Submission Deadline**: 31 July 2019 **Notification of Acceptance**: 31 August 2019 **Early Bird Registration:** 20 September 2019

Conference Dates: October 31 – November 2, 2019

Click **here** for more information.

# **IEEE-NANOMED 2019**



# **IEEE-NANOMED 2019**

Gwangju, Korea | 21-24 November http://ieee-nanomed.org/2019/

**Location:** Kimdaejung Convention Center, Gwangju, Korea

Dates: 21-24 November 2019

**General Chairs:** Jin-Woo Kim / Yong Yeon Jeong **Website:** http://ieee-nanomed.org/2019/

**Important Dates:** 

Abstracts Due: 15 July 2019

**Full Paper Submission:** 15 September 2019 **Early bird registration:** 15 September 2019

More details can be found here.

# **Reminder:**

# Call for Proposals for Future Sites for IEEE NANO 2022 and IEEE NMDC 2021

Extended deadline 15 October

#### **IEEE NANO 2022:**

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, characterisation and modelling of nano structures and devices. Research in both experiments and simulation is reported. Industry is encouraged to present its research projects. NANO 2019 and 2020 will be held in Macau, China; Montreal Canada; respectively.

We are now seeking proposals for NANO 2022 which is expected to run in IEEE Regions 10 (Asia). NANO should be run at the end of July, preferably in the last week.

#### IEEE NMDC 2021:

The Nanotechnology Materials and Devices Conference (NMDC) aims to develop 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 2019 will be held in Stockholm, Sweden. Past locations of the NMDC have been in Asia (Korea, Japan, Taiwan, Singapore), USA (California, Michigan, Hawaii, Alaska, Portland), and Europe (Sicily, France).

We are now seeking proposals for IEEE NMDC 2021 which is expected to run in IEEE Regions 1-7 (Americas), typically between mid-September and mid-October.

For information on submitting a proposal, click here.

Contact NTC VP Conferences **Lixin Dong** with any questions.

**Extended deadline 15 October** 

For details on the 2020 NTC conferences, visit https://ieeenano.org/conferences/conferences-2020/.

# **Publications**

# **Coming Soon: IEEE Open Journal of Nanotechnology**

IEEE Nanotechnology Council (NTC) is launching a new gold fully open journal, access Open Journal of Nanotechnology (OJ-NANO), spanning the full scope of the IEEE NTC's fields of interest. The new journal, which will be fully compliant with funder mandates, including Plan S, will begin accepting



submissions in fall 2019 and publish its first articles in early 2020. The new journal will have an independent editorial board, an established peer review process, and an accomplished expert as editor-in-chief.

For more information about OJ-NANO please visit **open.ieee.org** or complete the **form** to receive an email when OJ-NANO will begin accepting submissions.

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