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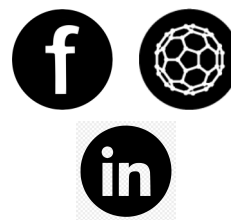
IEEE Nanotechnology Council
Newsletter | December 2021



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KEEP UP WITH US



EDITOR'S NOTE

Welcome to the December 2021 issue of the Nanotechnology Council newsletter. This issue brings you the latest updates and activities in the IEEE-NTC community.

We are pleased to announce the new editors of the NTC newsletter:



Yijun Cui

Nanjing University of Aeronautics and Astronautics
Nanjing, China



Ke Chen

Nanjing University of Aeronautics and Astronautics
Nanjing, China

We hope you enjoy it and do let us know if there is any topic you'd like to see covered in the future. All future content submissions to the newsletter should be sent to the new editors: **Yijun Cui** and **Ke Chen**.

BREAKING NEWS



IEEE NANO 2022: Call for Papers

IEEE-NANO is the flagship IEEE international conference on Nanotechnology, which has been a successful annual conference since 2001. Recent conferences were held in Montreal (2021), on-line (2020), Macau (2019), Cork (2018), Pittsburgh (2017), Sendai (2016), Rome (2015), and Toronto (2014).

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View Call for Papers

OJ-NANO Special Issue on “IEEE-NANOMED 2021: Nano/Molecular Medicine & Engineering”: Call for Papers

IEEE OJ-NANO will devote a special issue/section on “**IEEE-NANOMED 2021: Nano/Molecular Medicine and Engineering**” to a collection of papers highlighting research and technology development in the field of nanobiotechnology, molecular engineering, micro/nano-fluidics, micro/nano-system integration, nano-biology and nanomedicine. IEEE Nanotechnology Council sponsors the *15th IEEE International Conference on Nano/Molecular Medicine & Engineering* (IEEE-NANOMED 2021) held on 15-18 November 2021 to foster interaction between physicians, scientists and engineers in these emerging areas. The submission deadline is **30 April 2022**.

View More Information on this Special Issue

2022 Newly Elevated Fellows

Congratulations to the following outstanding members of NTC community on being elevated (effective Jan 1, 2022) to the rank of Fellow of IEEE!

Dr. Zhihong Chen

West Lafayette, IN USA

for contributions to the understanding and applications of low-dimensional nanomaterials

Dr. Jin-Woo Kim

Fayetteville, AR USA

for contributions to nanoscale fabrication of bio/nano-hybrid materials

William King

Urbana, IL USA

for contributions to nano-scale measurements and nano-manufacturing

View Complete Listing of IEEE Fellows Elevated by NTC

Chennupati Jagadish Elected President of the Australian Academy of Science

contributed by James Morris, NTC President



Please join me in celebrating the election of Distinguished Professor Chennupati Jagadish to the 20th Presidency of the Australian Academy of Science for a four year term.

Jagadish has strong roots in the IEEE Nanotechnology Council, primarily as its President in 2008/2009 and of course as President-Elect and Past-President in 2006/2007 and 2010/2011. But he also served in other roles, e.g. Vice-President of Publications (2004/2005), Awards Chair (2006) and Fellows Evaluation Committee Chair (2012/2013.) He also served as the IEEE Photonics Society President and in multiple prestigious service roles in Australia.

[Read more about Jagadish's life and achievements here.](#)

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EDUCATION

COVID-19 Hub: Your IEEE Resources



Check out the IEEE COVID-19 Hub for regular updates about IEEE members developing technologies to fight the virus, resources available across the IEEE, coping strategies from engineers around the world, and opportunities to get involved in the fight. **[Read More.](#)**

[TryNano.org Resource Site](#)



TryNano.org offers broad and updated resources for those interested in exploring or participating in the fields of nanoscience and nanotechnology. The IEEE Nanotechnology Council (NTC) supports this initiative and maintains these resources to encourage professionals, students, and others to be informed about the latest research, trends, and educational opportunities. Contact TryNano Editor-in-Chief, **James Spicer** with feedback.

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STANDARDS

Join the IEEE NTC Standards Committee and Make Your Mark

contributed by Tyler Jaynes, NTC Standards Committee Chair

Whether you are new to the nanotechnology field, or are a professional considering a change and want to find out more about nanotechnology, we invite you to join the IEEE Standards Association **IEEE NTC Standards Committee** in making a meaningful impact on your industry and organization. The scope of the Nanotechnology Council Standards Committee (NTC/SC) is to provide a focal point for cooperative activities, both internally and externally, including the promotion, consolidation, and coordination of nanotechnology activities among IEEE entities in the theory, design, and development of nanotechnology and its scientific, engineering and industrial applications.

If you are interested in participating in the committee, please contact me as the Nanotechnology Council Standards Committee Chair at tyler.l.jaynes@ieee.org, or the IEEE SA Program Manager, Vanessa Lalitte, at v.lalitte@ieee.org.

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YOUNG PROFESSIONALS

NTC Young Professionals Update

contributed by Rafal Sliz, NTC YP Representative



Four Regional NTC YP LinkedIn pages have been established and are timely updated. The regional coordinators established cooperation with the regional NTC conference organizers in order to support and ensure presence of young professionals.

**[NTC YP LinkedIn
Region 7 \(Canada\)](#)**

**[NTC YP LinkedIn
Region 8 \(Africa, Europe, Middle
East\)](#)**

**[NTC YP LinkedIn
Region 9 \(Latin America\)](#)**

**[NTC YP LinkedIn
Region 10 \(Asia and Pacific\)](#)**

More information about the NTC YPs

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TECHNICAL COMMITTEES

New NTC Technical Committee Chair



[TC-04: Nano-Optics, Nano-Photonics, and Nano-Optoelectronics
Technical Committee](#)

Reuven Gordon, University of Victoria, Canada
rgordon@uvic.ca

[More information about TC-04](#)

First Meeting of the NTC Technical Committee on Emerging Plasma Nanotechnologies

This first meeting of the newborn Technical Committee on Emerging Plasma Nanotechnologies, planned for February, 9th, 2022, will start at 5:00pm CET, Paris time zone, (8:00am PST, 11:00am EST, 1:00am(+1day) JST). It will be virtual with a very exiting program with speakers either from academia and industry. This time we have a special focus on advanced device development/plasma processes including AI/ML/big

data. The list of speakers is the following:

5:00 – 5:45 pm (CET)

Prof. Seiji Samukawa, Tohoku University, Japan

*Introduction of IEEE Nanotechnology Council and Emerging Plasma Nanotechnologies
Technical Committee*

Plasma Nanotechnology Introduction/Background

5:45 – 6:20 pm (CET)

Prof. Masaru Hori, Nagoya University, Japan

*Internal parameter analysis by random forest model in PECVD of amorphous carbon
films*

6:20 – 6:55 pm (CET)

Dr. Thorsten Lill, Lam Research, USA

Plasma technologies for etching of 3D integrated memories

6:55 – 7:30 pm (CET)

Dr. Alok Ranjan & Dr. Shyam Sridhar, Tokyo Electron America, Inc., USA

Emerging plasma technologies enabling logic and memory scaling roadmaps

Organizers:

Dr. Peter Ventzek

Prof. Uros Cvelbar

Dr. Kremena Makasheva

**More Information about the First Meeting of TC-17 and to
Register**

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PUBLICATIONS

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IEEE Transactions on Nanotechnology

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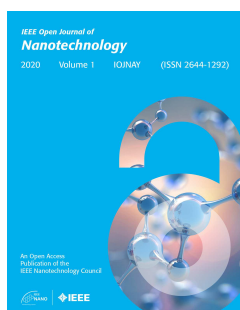
[T-NANO, Volume 20](#)

For additional information, visit the **[IEEE Xplore website](#)**.

To submit to T-NANO, click **[here](#)**.



IEEE Open Journal of Nanotechnology



[OJNANO, Volume 2](#)

For additional information, visit the **[IEEE Xplore website](#)**.

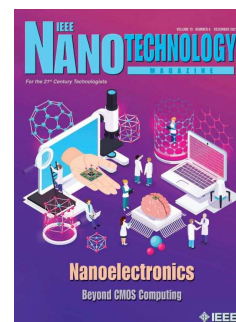
To submit to OJ-NANO, click **[here](#)**.

IEEE Nanotechnology Magazine

View the full current issue of IEEE INM

[INM, Volume 15, Number 6](#)

For additional information, visit the **[IEEE Xplore website](#)**.



IEEE Transactions on NanoBioscience

IEEE TRANSACTIONS ON
NANOBIOSCIENCE

View the full current issue of IEEE T-NB

[T-NB, Volume 20, Number 4](#)

For additional information, visit the **[IEEE Xplore website](#)**.

To submit to T-NB, click **[here](#)**.

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CONFERENCES

Financially Sponsored Conferences

IEEE NMDC 2021



POSTPONED to December 12-15, 2021 | Vancouver, British Columbia

[Website](#)

The 16th IEEE Nanotechnology Materials and Devices Conference (IEEE NMDC 2021) will be held in Vancouver, BC, Canada from December 12 to 15, 2021. IEEE NMDC 2021 will be co-located with the IEEE Conference on Electrical Insulation and Dielectric Phenomena (**IEEE CEIDP**). The two conferences will hold joint sessions to highlight important work being pursued at the nexus of their respective disciplines.

The technical program for NMDC 2021 features innovative research results on a wide variety of topics that emphasize the role of nanoscale phenomena, materials and devices in established and emerging technological areas. Before submitting abstracts, researchers are encouraged to examine the Technical Program Areas to identify the ones that most closely reflect the emphasis of their work.

[Registration](#) open through December 10. There are remote participation options.

[View Conference Program](#)

IEEE-NEMS 2022



April 14-17, 2022 | Taoyuan, Taiwan

Website

The 17th International Conference on Nano/Micro Engineered and Molecular Systems (NEMS) will be held from 14-17, April 2022 in Taoyuan, at Chang Gung University, Taiwan.

The IEEE-NEMS is a premier conference series sponsored by the IEEE Nanotechnology Council focusing on the promotion of advanced research areas related to MEMS, nanotechnology, and molecular technology. Prior conferences were held in Xiamen (China, 2021), California (USA, 2020), Thailand (2019), Singapore (2018), Los Angeles (USA, 2017), Matsushima Bay and Sendai (Japan, 2016), Xi'an (China, 2015), Hawaii (USA, 2014), Suzhou (China, 2013), Kyoto (Japan, 2012), Kaohsiung (Taiwan, 2011), Xiamen (China, 2010), Shenzhen (China, 2009), Hainan Island (China, 2008), Bangkok (Thailand, 2007), and Zhuhai (China, 2006). The IEEE-NEMS Conference typically attracts over 600 attendees with participants from more than 20 countries and regions worldwide.

Key dates:

- Two-Page Abstract Deadline (both Oral & Poster): December 15, 2021
- *Best paper competition: A full paper (4 to 6 pages) is required by December 15, 2021 to enter best paper contest.
- Notification of Acceptance: February 1, 2022
- Full-paper Submission Deadline: March 1, 2022
(Only required to publish papers in Xplore)

IEEE-NANO 2022



July 4-8, 2022 | Palma de Mallorca, Spain

Website

The 22nd IEEE International Conference on Nanotechnology (IEEE-NANO 2022) will be held from 4th to 8th of July, 2022, at the Auditorium of Palma, the capital of Balearic

Islands, Spain.

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View Call for Papers

View Call for Special Session Proposals

IEEE NAP 2022



September 11-16, 2022 | Kraków, Poland

[Website](#)

The prime focus of our Conference is on nanoscale materials with emphasis on interdisciplinary research exploring and exploiting unique physical and chemical properties of these materials for practical applications.

Abstract submission will be open on January 17, 2022.

Technically Co-Sponsored Conferences

DTS 2022



2022 4th IEEE International Conference on
Design & Test
of integrated micro & nano-Systems

June 6 - 9, 2022, Cairo, Egypt

June 6-9, 2022 | Cairo, Egypt

[Website](#)

The IEEE international conference on Design & Test of integrated micro & nano-Systems represents a scientific and technological event dedicated to integrated electronic systems which reach the nanoscale era. The interests of the conference cover all the aspects from the design to the test of micro and nano systems.

IEEE DTS is an important meeting where well known researchers from universities and companies will present the latest innovations in the field of micro and nano electronics. It will be also an opportunity for researchers to present and discuss their latest work. IEEE DTS'22 will be organized by the EMC Group of METS laboratory at National Engineering School of Sfax. The conference official language is English.

Key dates:

- Submission deadline: February 16, 2022
- Notification of acceptance: March 7, 2022
- Final version due date: April 6, 2022

View Call for Papers

MARSS 2022

MARSS

International Conference on Manipulation,
Automation and Robotics at Small Scales



Toronto, Canada

July 25–29, 2022

NEW DATES: July 25-29, 2022 | Toronto, Canada

[Website](#)

After the two-years pandemic break, the **5th Int. Conference on Manipulation, Automation and Robotics at Small Scales (MARSS)** will be held on July 25-29,

2022, in Toronto, Canada. General Chair: Yu Sun (CA), General Co-Chairs: Eric Diller (CA) and Xinyu Liu (CA). MARSS is the flagship forum for cross-disciplinary R&D communities related to manipulation and automation (incl. measurement and characterization) at micro/nano scales as well as all kinds of small scale robots and their applications. The conference is technically supported by IEEE-NTC and IEEE-RAS.

No online virtual presentation option will be offered by MARSS2022. Regarding potential travel restrictions due to the pandemic, please check for details [on our website](#).

Key dates: (Updated!)

- Full paper submission (5-6 pages): May 15, 2022
- Submission of final full papers: June 20, 2022
- Short paper submission (1-3 pages): June 15, 2022
- Special session proposals: May 15, 2022 (preliminary); June 20, 2022 (final)
- Early Bird registration: June 20, 2022

View Call for Papers

Conferences of Interest

Electron Devices Technology and Manufacturing (EDTM) Conference

Electron Devices Technology and Manufacturing (EDTM) Conference was established by the IEEE Electron Devices Society (EDS) to enable further performance/functionality enhancement of semiconductor devices and systems with manufacturing innovations to overcome scaling challenges. EDTM provides the forum where device, process, material, and tool communities gather and discuss their novel ideas for technological breakthrough.

EDTM rotates among Asian countries where hot-hubs of semiconductor manufacturing are located. Launched in 2017 in Toyama, Japan, EDTM was subsequently held in Kobe, Japan (2018), in Singapore (2019), in Penang, Malaysia (2020), in Chengdu, China (2021), and will come back to Japan (Oita) in 2022. EDTM is a premier conference, providing a unique forum for discussions on a broad range of device/manufacturing-related topics.

Visit the EDTM Conference Website

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List of Nanotechnology Council Officers (2021)

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Past-President, Yonhua (Tommy) Tzeng

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VP Publications, Supriyo Bandyopadhyay

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