

IEEE Nanotechnology Council

Newsletter | October 2021



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EDITOR'S NOTE

Welcome to the October 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:



<u>Yijun Cui</u>
Nanjing University of Aeronautics and Astronautics
Nanjing, China



Ke ChenNanjing 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 Open Journal of Nanotechnology: Call for Papers

IEEE Open Journal of Nanotechnology (OJ-NANO) is a new gold fully open access journal launched in 2020 by IEEE Nanotechnology Council. It publishes research advancing the theory, design and development of nanotechnology and its scientific, engineering and industrial applications. The journal has an independent editorial board, established peerreview process, is targeting a ten-week rapid publishing schedule and is fully compliant with funder mandates, including Plan S. Your work will also be exposed to 5 million unique

monthly users of the IEEE *Xplore*® Digital Library. OJ-NANO is on track to receive an Impact Factor in 4 years.

We are pleased to inform you that IEEE Open Journal of Nanotechnology will waive 50% of the APC (Article Publishing Charge) for submissions, which are accepted for publication before 31st December 2021 after peer review.

View Call for Papers

IEEE OJ-NANO Now Indexed in Web of Science's ESCI



We are delighted to announce that IEEE Open Journal of Nanotechnology (OJ-NANO) is now indexed in the Emerging Sources Citation Index (ESCI)TM by Clarivate Analytics, meaning that articles are now discoverable in Web of Science.

Read more here.

IEEE OJ-NANO Accepted for Inclusion in Scopus®

We are delighted to announce that IEEE Open Journal of Nanotechnology (OJ-NANO) is now accepted for inclusion in Scopus® by Elsevier, meaning that articles will be discoverable in Elsevier's abstract and citation database!

Read more here.

Current Status of Nano-scale Medicine Innovation

The Society for HealthCare Innovation (SHCI) is a collaborative group of students, academics, and medical professionals who aim to advance novel ideas, science, and technologies in healthcare. Through their diverse interconnected networks of professionals from all avenues of the healthcare ecosystem, the SHCI seeks to push forward the frontiers of healthcare through innovation in workflows, adoption of new digital care models, and transformative technologies that impact the way we provide, receive, and pay for healthcare. To support these goals, the University of California - Santa Cruz Crown College and Center for Applied Values and Ethics in Advanced Technologies (CAVEAT) have partnered with the SHCI to develop their 2021 "Frontiers of Innovation" conference. This event will take place from October 25 - 29, 2021, in two-hour blocks from 2 - 4 pm Eastern, and will cover some of the recent developments in AI, Blockchain, DIY Biotechnology (Biohacking), Nanotechnology, and Neuolink-focused devices.

The NTC's Vice-President for Conferences, Jin-Woo Kim, and Distinguished Lecturer, Elena Rozhkova, have graciously agreed to share their expertise in the realm of nanotechnology for medical research and implementation for this event. The 2021 Frontiers of Innovation Steering Committee would like to extend an invitation to anyone interested to join our conversation with them on October 26. **Registration is free and open to the public**, and a moderated conversation board will be open to allow participants the ability to connect and further the discussions that will take place during the week. For questions, please reach out to **Tyler L. Jaynes** - NTC/SC Chair and Steering Committee member.

More information available here.

NTC Young Professionals Canada to Host a Webinar on 19 October

On October 19th at 11 AM (UTC-6), join this free [Webinar] "Microfabrication: Facilities in Canada." Different specialists from across Canada will talk about the equipment, processes, and capabilities of their laboratories for microfabrication and microanalysis techniques.

Panelists:

Dr. Lyudmila Goncharova (Western University),

Dr. Sven Achenbach (University of Saskatchewan), and

Dr. Andrew Fung (CMC Microsystems)

Moderator:

Mr. Nathanael Sieb (4D LABS, Simon Fraser University)

More information available here.

Register for the Webinar

NTC Young Professionals Region 8 to Host a Two Webinars

On November 16th at 10:30 AM Rome (UTC+2), join this free [Webinar] "Interfacial properties in composite nano-systems for energy harvesting." Speaker: Prof. Alberto Vomiero.

Register here.

On November 16th at 11:45 AM Rome (UTC+2), join this free [Webinar] "Plasma-based synthesis of thin dielectrics with embedded AgNPs: multi-functionality and applications." Speaker: Prof. Kremena Makasheva.

Register here.

Report on the Kick-off meeting of TC-16 on Quantum, Neuromorphic, and Unconventional Computing

 $contributed\ by\ TC\text{-}16\ Chair\ Giovanni\ Finocchio$



Technical Committee 16 (TC-16) of IEEE Nanotechnological Council covers the area of interest in Quantum, Neuromorphic, and Unconventional Computing. TC-16 aims to serve as an interdisciplinary guide for scientists working in these three areas of advanced computing and to create a common language for them. In addition, TC-16

focuses on the role of nanotechnology, in terms of solutions, which can impact the developments of those computational paradigms. The kick-off meeting of the newborn TC was organized on June 11th with the participation of more than 100 virtual attendees.

More Information about the Kickoff Meeting of TC-16

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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.

Call for 2022 Distinguished Lecturer Nominations

The IEEE Nanotechnology Council (NTC) is seeking nominations for distinguished lecturers. **Nominations are due 30 October 2021.** The NTC has created a distinguished lecturers program to enhance the visibility of NTC among nanotechnology

societies. The NTC Distinguished Lecturers are appointed to honor excellent speakers who have made technical, industrial or entrepreneurial contributions of high quality to the field of nanotechnology and science, and to enhance the technical programs of the Nanotechnology Council chapters and conferences. The term for the Lecturers is from 1 January until 31 December of 2022.

View Call for Distinguished Lecturers

Report on the IEEE NTC Latin America Summer School on Nanotechnology (2021 IEEE LASSNANO)

contributed by Guilherme B. Pintarelli

The Region 9 2021 IEEE NTC Latin America Summer School on Nanotechnology (2021 IEEE LASSNANO) was held virtually from 8 to 9 of September. The summer school had five lectures and two workshops on simulation and fabrication from experts from academia and industry.

More information about 2021 IEEE LASSNANO

Report on the 2021 IEEE NTC Romania Summer School on Nanotechnology

contributed by Eden Mamut

The IEEE Nanotechnology Council granted the organisation of one of the 2021 IEEE NTC Summer School on Nanotechnology to Romania as a five-day summer school dedicated to researchers, professors and students. The event has been proposed by Prof. Eden Mamut, Director of the Institute for Nanotechnologies and Alternative Sources of Energy (INAES), from the "Ovidius" University of Constanta.

The theme of the school was "Nanomaterials and Nanotechnologies for Advanced Energy Systems".

The aim of the organizers was to provide a holistic approach in developing "safe-by-design" advanced energy systems integrating nanomaterials and nanotechnologies and using multiscale and multiphysics modeling and optimization for performance improvement, reduction of environmental impact and the substitution of critical materials. The advanced energy systems that have been taking into consideration were biomass boilers, fuel cells, thermoelectric convertors, PV and hybrid solar panels and electro-opto-chemical reactors.

The official website of the event can be accessed <u>here</u>. Read the full report <u>here</u>.

More information about 2021 NTC Summer School Romania

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STANDARDS

Join the IEEE NTC Standards Committee and Make Your Mark 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

Local NTC YP Representatives Appointed within R7 (Canada)

Last month, the NTC Young Professionals team in Canada expanded from one to three individuals. This expansion effort is intended to bring NTC YP activities closer to students and young professionals particularly in localities or institutions where no NTC chapter or student branch chapter is currently established.

The two members to join the team were Mrs. Daniela Vieira (McGill University) and Mr. Ian Then (University of Alberta)

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CHAPTERS

Introducing the New NTC Chapters

North Jersey Section Chapter, United States (Region 1)

Chapter Chair: Eui-Hyeok Yang (ehyang@ieee.org)

University of Saskatchewan Student Branch Chapter, Canada (Region 7)

Chapter Chair: José Alvim Berkenbrock (<u>eel.jab@gmail.com</u>)

Harbin Section Chapter, China (Region 10)

Chapter Chair: Mi Li (<u>limi@sia.cn</u>)

CVR College of Engineering Student Branch Chapter, India (Region 10)

Chapter Chair: Vedanvita Gudavlli (<u>vedanvita.gudavalli@gmail.com</u>)

Sri Venkateswara College of Engineering Section Chapter, India (Region 10)

Chapter Chair: Guntur Renu (grenu807@gmail.com)

Sri Sai Ram Engineering College Section Chapter, India (Region 10)

Chapter Chair: Adithya Subramani S (adithyasubramani.s@gmail.com)

VNR Vignana Jyothi Institute of Engineering & Technology Section Chapter, India (Region 10)

Chapter Chair: Saikamal Kasanagottu (saikamal k177@ieee.org)

View Complete Chapter Listing

Inauguration Event of IEEE NTC Vardhaman College of Engineering Chapter

On 15th September 2021, IEEE Vardhaman College of Engineering hosted the official Inauguration of IEEE Nano Technology Chapter. They also organized a virtual event entitled IEEE Reach the Community under IEEE R10 MDLT Initiative from 12th - 19th September 2021 in association with Five Colleges IEEESVCE, IEEE SVCK, IEEE SVEC and IEEE Narayana Engineering College.

IEEE NTC Student Chapter IIT Indore Celebrated IEEE Day 2021

IEEE Day celebrates the first time in history when engineers worldwide and IEEE members gathered to share their technical ideas in 1884. Worldwide celebrations demonstrate the ways thousands of IEEE members in local communities join together to collaborate on ideas that leverage technology for a better tomorrow. IEEE Day is celebrated on the first Tuesday of October. Accordingly, IEEE Day was celebrated on Tuesday 5 October 2021.

Now engraved in its essence, the IEEE Day's theme is: "Leveraging Technology for a Better Tomorrow". While the world benefits from what's new, IEEE focuses on what's next.

More Information about IEEE Day 2021

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PUBLICATIONS

IEEE Transactions on Nanotechnology

View the full current issue of IEEE T-NANO T-NANO, Volume 20

For additional information, visit the ${\color{red} \underline{\textbf{IEEE}}\ \boldsymbol{Xplore}}$ 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 4

For additional information, visit the **IEEE Xplore website**.



IEEE Transactions on NanoBioscience



View the full current issue of IEEE T-NB

T-NB, Volume 20, Number 3

For additional information, visit the IEEE Xplore

website.

To submit to T-NB, click **here**.

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CONFERENCES

Financially Sponsored Conferences

IEEE NANOMED 2021



November 15-18, 2021 | VIRTUAL Website

The 15th IEEE International Conference on Nano/Molecular Medicine & Engineering (IEEE NANOMED 2021) will be held from November 15 to 18, 2021 (UTC+8) / November 14 to 17, 2021 (UTC-8) virtually. The conference is one of the premier annual events organized by the IEEE Nanotechnology Council (NTC), dedicated to provide a forum to discuss the latest developments in all areas of the Nano/Molecular Medicine & Engineering.

Full Paper Submission Deadline: November 1, 2021

View Call for Papers

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 will feature 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.

View Call for Papers

Technically Co-Sponsored Conferences

POSTPONED to November 25-26, 2021 | Opole, Poland and Virtual Website

We are pleased to invite you to participate in 6th International Conference on Nanotechnology for Instrumentation and Measurement (NANOfIM 2021), which will be held on **November 25-26th**, **2021**, hybrid **(in-person and virtual)**, while observing all applicable safety measures.

This important event will be celebrated at the **Opole University of Technology** Campus in Opole, Poland.

Key dates:

Deadline for registration and abstract submission: October 22, 2021

Notification of acceptance abstracts: October 29, 2021 Registration fee payment deadline: November 5, 2021 Submission of full papers (4-5 pages): November 15, 2021

The registration form is available <u>here as a pdf file for download</u>. Please send the completed and signed file to <u>nanofim2021@po.edu.pl</u>.

Renowned Keynote Speakers:

Prof. Bonex Mwakikunga

Council for Scientific and Industrial Research: Pretoria, Gauteng, South Africa Title of Plenary Lecture: "Nano-fets in gas andbreath analysis for health and environment"

Prof. Christopher A. Brown

Worcester Polytechnic Institute, Worcester, MA 01609, United States Title of Plenary Lecture: "Multiscalemetrology of topographies for science and engineering"

View Call for Papers

MARSS 2022

MARSS

International Conference on Manipulation, Automation and Robotics at Small Scales



Toronto, Canada July 18–22, 2022

July 18-22, 2022 | Toronto, Canada <u>Website</u>

After the two-years pandemic break, the 5th Int. Conference on Manipulation, Automation and Robotics at Small Scales (MARSS) will be held on July 18-22, 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**.

Important Dates

Full paper submission (5-6 pages): March 15, 2022 Short paper submission (1-3 pages): June 15, 2022

View Call for Papers

More Information about MARSS 2022

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List of Nanotechnology Council Officers (2021)

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Past-President, Yonhua (Tommy) Tzeng
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