



Newsletter | April 2025

Editor's Note

Welcome to the April 2025 issue of the Nanotechnology Council newsletter. This issue brings you the latest updates and activities in the IEEE-NTC community. 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 editors: Yijun Cui and Ke Chen.



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BREAKING NEWS

IEEE-NANO 25th Anniversary Celebration



Since its founding in 2001, IEEE-NANO has been the flagship conference of the IEEE Nanotechnology Council (NTC). Its sustained support and promotion of advanced research in nanoscience and nanotechnology is unsurpassed in the technical community. Over the years, IEEE-NANO has been held around the globe in China, Germany, Japan, Canada, Spain, the United Kingdom, Italy, South Korea, Ireland, the United States, and online (we will never forget the COVID years) and has benefited from the efforts of countless volunteers. Their ongoing commitment to the NTC and to NANO has allowed our community to share advancements and recognize accomplishments in nanotechnology. At its beginning, IEEE-NANO was the forum where the current World Nanotechnology Leaders first reported their work and contributed to the development and visibility of many researchers all over the globe. The nanotechnology field has evolved with the times, but the spirit of the IEEE-NANO conference remains. It fosters research discovery, technical innovation, and reduction to practice – the hallmarks of a vibrant technical community.

Please join us as we celebrate the history of this important conference at the 25th IEEE International Conference on Nanotechnology (IEEE-NANO 2025) in Washington, DC, USA, 13 - 16 July 2025.

Please contact us (spicer@jhu.edu) if you have precious moments from previous IEEE-NANO conferences that you would like to share with us and with the nanotechnology community.

Call for 2025 Nominations IEEE Nanotechnology Council

The IEEE Nanotechnology Council (NTC) is seeking nominations for the following elected positions.

1. Election: **VP-elect for Conferences** (3-years: serves as elect in 2026; VP 2027-2028)
2. Election: **VP-elect for Finances** (3-years: serves as elect in 2026; VP 2027-2028) [incumbent is eligible]
3. Election: **Member-at-Large (MAL)** (up to 3) (2026-2027)

Unless otherwise noted, all positions are two-year terms and start 1 Jan. 2026. MAL can serve 4 consecutive years

Nominations should include a statement from the candidate and a bio in IEEE format.

The deadline for nominations is **15 May 2025**.

A **position description and nomination form** can be downloaded [here](#).

Duties for the positions are described in the NTC Constitution which can be found [here](#), and in the NTC Bylaws which can be found [here](#).

Eligibility: Officer candidates are nominated from current AdCom members or from those past members who have served as Member Society-appointed or ex-officio AdCom members **within the previous five years**. Review the [AdCom roster](#).

MAL candidates serve as members of the AdCom and are to provide the Council with independent insights and positions that are in support of the global nanotechnology community, especially those involved in independent research, development and commercialization, to represent the Council positions and statements as needed to these global constituencies and to complete the specific tasks identified in their candidacy documents. **MAL are NOT required to be members of Member Societies.**

Note 1: Nominations may be made only by AdCom members (Society representatives and ex-officio; see website [AdCom roster](#)).

Note 2: An individual may not serve concurrently as both a Council officer and a Council Member Society representative.

Submit nominations by midnight (PT) **15 May 2025**. Use Google form or email to NTC Nominations Chair.

- **NEW for 2025:** [Online Google nomination form](#)
- OR Email the nominations to **Fabrizio Lombardi** NTC Nominations Committee Chair at lombardi@coe.neu.edu

The election will be held at the NTC AdCom in Washington, DC USA on 13 July 2025.

Candidates are required to appear before the AdCom for the election, either in person or virtually.

IEEE NMDC 2025 – Call for Papers



[Website](#)
[Download CFP \(PDF\)](#)

IEEE NMDC is a flagship conference series of the IEEE Nanotechnology Council (NTC), focusing on research advances in the fields of nanoscience and nanotechnology.

The 20th IEEE Nanotechnology Materials and Devices Conference (NMDC 2025) will be held in New Delhi, India, 12-15 October 2025.

Conference Scope:

The conference focuses on the latest scientific and technological advances related to

- Nanorobotics and nanomanufacturing
- Nano-biomedicine
- Nanofabrication
- Nano-Optics, Nanophotonics, and Nano-Optoelectronics
- Spintronics
- Nanoelectronics
- Nanosensors and Nanoactuators
- MEMS/NEMS
- Nanoelectronics
- Nano-fluidics and integrated bio-chips
- Nanomaterials
- Nanometrology and Characterization
- Modeling and Simulation
- Nanopackaging
- Nanomagnetism
- Nanoenergy, Environment and Safety
- Nano-acoustic Devices, Processes & Materials
- Quantum, Neuromorphic & Unconventional Computing
- Emerging Plasma Nanotechnologies
- Education in nanotechnology
- Ethics in Nanotechnology
- Commercializing nanotechnology
- Fundamentals and applications of nanotubes, nanowires, quantum dots and other low dimensional materials

Paper submission:

Submit abstracts and papers at <https://nano.papercept.net/conferences/scripts/start.pl>. Be sure to select "NMDC'25".

Accepted and presented full papers (4 to 6 pages) for IEEE-NMDC will be included in IEEE *Xplore* as well as other Abstracting & Indexing (A&I) databases.

Key Dates:

Abstract Submission: 31 May 2025

Full Paper Submission: 30 July 2025

Notification of Acceptance: 1 Sept 2025

Final Paper Submission: 1 October 2025

General Chair:

Prof. Kaushik Pal, Indian Institute of Technology, Roorkee, India

Technical Program Chair: Supriyo Bandyopadhyay, Virginia Commonwealth University, USA

Treasurer: Prof. Amalendu Pattanaik, Indian Institute of Technology, Roorkee, India

Publications Chair: Prof. Rohit Sharma, Indian Institute of Technology, Ropar, India

Publicity Chair: Prof. Ankush Kumar, Indian Institute of Technology, Roorkee, India

Registration Chair: Prof. Rajesh Kumar Ulaganathan, Indian Institute of Technology, Roorkee, India

Tutorials Chair: Prof. M. Sankar, Indian Institute of Technology, Roorkee, India

Local arrangement Chair: Prof. Indranil Lahiri, Indian Institute of Technology, Roorkee, India

Exhibits Chair: Prof. Debrupa Lahiri, Indian Institute of Technology, Roorkee, India

Sponsor Chair: Prof. M. Sankar, Indian Institute of Technology, Roorkee, India

Webmaster: Prof. Santanu Pradhan, Indian Institute of Technology, Roorkee, India

R9 TUTORIAL DAY IN CONJUNCTION WITH IEEE-NANO2025



The IEEE International Conference on Nanotechnology IEEE-NANO (<https://2025.ieeenano.org/>), the flagship conference of the IEEE Nanotechnology Council (IEEE NTC), will be held in Washington, D.C. on 13-16 July 2025. Continuing the initiative under the motto "An Extended Bridge to Latin America" and as part of the conference activities related to the celebration of the 25th anniversary of IEEE-NANO, the organizing committee has planned a series of outreach activities dedicated to young professionals and researchers from Latin America (IEEE Region 9 or R9).

In this regard a R9 Tutorial Day is scheduled for 17 July. This event features four invited tutorial talks given by speakers originally from Region 9, covering special topics in Nanotechnology and Nanosciences. The R9 Tutorial Day will be held remotely, in a virtual environment, alongside regular conference activities in Washington D.C.

Participation is completely free of charge, with only a simple free pre-registration required (details will be announced later-on). The line-up of confirmed speakers, along with their general topics, is as follows (final titles will be announced shortly):

- Enrique Solano (Peru), Quantum Computing, CEO of the company Kipu-Quantum, Berlin, Germany. <https://scholar.google.com.br/citations?hl=en&user=0ZxS2k0AAAAJ>
- Marcello Pavanello (Brazil), Nanoelectronics, IEEE ED-S Distinguished Lecturer, Centro Universitario FEI. <https://scholar.google.com.br/citations?user=2iRk15MAAAAJ&hl=en>
- Monica Garcia (Argentina), Nanomedicine Applications, L'Oréal UNESCO 2023 award recipient, National University of Cordoba (UNC), <https://scholar.google.com.br/citations?hl=en&user=CkFSDKMMAAAJ>
- Rodrigo Capaz (Brazil), Nanomaterials, Director, Brazilian Nanotechnology National Laboratory, Federal University of Rio de Janeiro (UFRJ), <https://scholar.google.com.br/citations?user=2HZbMZsAAAAJ&hl=en>

Participation is open to all IEEE-NANO 2025 conference attendees and all members of the IEEE NTC community. We hope to see you there.

IEEE-NANO 2025
International Outreach Coordinator
Murilo A Romero (University of Sao Paulo, Brazil)
General Co-Chairs
Jim Spicer (Johns Hopkins University, USA)
Bonnie L. Gray (Simon Fraser Univ., Canada)
Xiaoning Jiang (North Carolina State University, USA)
Kremena Makasheva (CNRS, University of Toulouse, France)

CHAPTERS

Call for Chapter Coordinator – NTC Region 10

The NTC Chapter and Regional Activity Committee is calling for **Expressions of Interest** for the role of **Region 10 (India) Chapter Coordinator**.

If interested, please send your CV and a brief cover letter explaining your past involvement with NTC and why **you** are interested in the role to the Chapter and Regional Activity Committee Chair, **Prof. Lan Fu** (lan.fu@anu.edu.au).

EDUCATION

NANO - STUDENT DESIGN COMPETITIONS (SDC)

All eligible students or student teams are invited to participate in the International Conference on Nanotechnology Student Design Competitions (SDCs). The competition encourages students to employ creative problem solving and gain practical design experience by developing small samples, synthesis and characterization methodologies, novel software, simple prototypes or system to address a problem stated in the competition rules while following specified constraints.

Participants, Requirements & Rules:

- All full-time undergraduate (B.Sc.) and graduate students (M.Sc. & PhD) worldwide are invited to take part in the Nano SDC.
- These students must have an accepted paper to NANO 2025.
- Students can form groups of at least 1 member, up to a maximum of 4 members. All team members must be full-time students while working on the project. A student cannot be part of two groups.
- At least one team member must register to the NANO 2025 Conference and attend in person the NANO SDC to assist with presentation, showcase, measurements (where applicable) and answer to judges' questions.
- To participate in NANO SDC it is necessary to compile a form using the link provided below.
- The deadline is the 30 April 2025.
- Three different topics are given, and students can select only one of the three topics. The students' project may or may not be directly related to the submitted paper. In other words, if a student submitted a paper to IEEE NANO, he/she can participate to any topics of the Nano SDC if such a paper is accepted and registered, independently from the manuscript subject. The students would have time to work on a project to be presented for the NANO SDC until July 2025.
- Students are advised to contact the individual competition organizers as early as possible, to ensure a full understanding of the rules, design specifications and judging criteria before beginning their projects.
- The student must have an academic advisor and he/she/their must certify that the work is completely made by the students.
- The students must notify the Nano SDC organizers at least one week before the date of the competitions if they plan to withdraw or will not be able to participate in person.
- The NANO SDC will take place on July 2025 during a specific public session within the IEEE NANO 2025 Conference, during which they will have to show in 10-15 min their prototypes or software and demonstrate their design outcomes.
- Winners will be recognized during the Social Dinner of IEEE NANO2025. Winning teams are awarded with a certificate, recognized at the social dinner, and will have a chance to submit a paper to the IEEE Nanotechnology Magazine for a special session dedicated to the NANO SDC.

Disclaimer: Student competitors should be aware that the NANO2025 will not assist participants in getting necessary equipment or designed circuits/systems into the United States of America. Students are responsible for the specific instrumentation needed for the SDCs (e.g., laptop, circuit boards, etc.). The students will bring their designs (e.g., software, prototypes, etc.) to the competition where they perform simple measurements or showcase their results and compete against other student teams. There are different competitions spanning a wide range of topics. Links to descriptions and rules for each competition are below.

N.B.: Travel visas and shipping your project equipment are your responsibility; it is recommended to arrange these as early as possible.

Design Competition Topics

SDC1 – Nanomaterials for Innovative Sensors

SDC2 – Computational Tools & Apps for the Modeling and Design of Nanodevices

SDC3 – Educational Games & Tools for Nanotechnology

More information are available on the [IEEE NANO 2025 Website](#).



NANO STUDENT DESIGN COMPETITION
II EDITION



Participation Link

To participate in the NANO SDC, click the link below and fill in the form. You will be asked to provide contact information for all team members and your academic advisor, and you will also need to upload a short abstract describing your design approach. In addition, your academic advisor must send an email to the organizers of the competition certifying that the work is yours, not theirs. The application deadline is **30 April 2025**.

Students are advised to contact the individual competition organizers as early as possible to ensure a full understanding of the design specifications and judging criteria before beginning their projects.

Click [Here](#) to Submit Your Application.

YOUNG PROFESSIONALS

NTC Young Professionals Update

Five 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 \(Canada\)](#)
- [Region 9 \(Latin America\)](#)
- [NTC YP India](#)
- [Region 8 \(Africa, Europe, Middle East\)](#)
- [Region 10 \(Asia and Pacific\)](#)



CONFERENCES

IEEE NANO: Call for Participation



Website URL: <https://2025.ieeenano.org/>

Date: 13 – 16 July

Venue: Washington DC, USA

Join us in shaping the future of nanotechnology! Explore cutting-edge research, connect with global experts, and discover ground-breaking innovations at IEEE Nano 2025.

Visit our website for all the details about the conference, including key topics, speakers, workshops, and networking opportunities. Don't miss your chance to be part of this transformative event in the world of nanotechnology!

Plenary and Keynote speakers announced [here](#).

Important Dates:

Early Registration deadline 1 June

IEEE-NANOMED 2025



Website URL: <http://ieeee-nanomed.org/2025/>

Date: 1 – 4 December

Venue: Hong Kong, China

IEEE-NANOMED is one of the premier annual events organized by the IEEE Nanotechnology Council (NTC), and brings together physicians, scientists, and engineers from all over the world and every sector of academy and industry for the advancement of basic and clinical research in medical and biological sciences through nano/molecular medicine and engineering. Attendees of IEEE-NANOMED can share their latest research in engineering and nano/molecular medicine with other practitioners in their field and related fields, ranging from basic scientific and engineering research to translational and clinical research.

Important Dates:

Two-Page Abstract Deadline: 11 July 2025

Notification of Acceptance: 12 September 2025

Full Paper Deadline: 12 July 2025 (for best paper competition)

3 October 2025 (for inclusion in IEEE *Xplore*)

Early Bird Registration: 30 September 2025

PUBLICATIONS

IEEE Transactions on Nanotechnology

View the [full current issue of IEEE T-NANO](#).

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

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

T-NANO, VOLUME 24



IEEE Open Journal of Nanotechnology

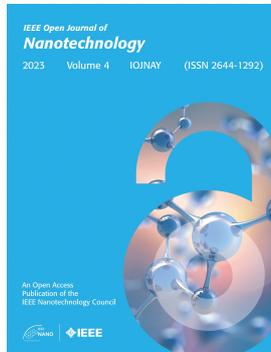
View the [full current issue of IEEE OJ-NANO](#).

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The *IEEE Open Journal of Nanotechnology* (OJ-NANO) is dedicated to publishing articles on timely topics in the field of nanotechnology by making them available immediately, freely, and permanently available to all. All articles published in OJ-NANO are exposed to 5 million unique monthly users of the IEEE Xplore® Digital Library. Among numerous articles published so far, we've selected a few review articles to highlight [here](#).

OJ-NANO, VOLUME 6



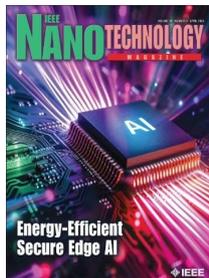
IEEE Nanotechnology Magazine

View the [full current issue of IEEE INM](#).

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

For information on submitting to INM, [click here](#).

INM, VOLUME 19, NO. 2



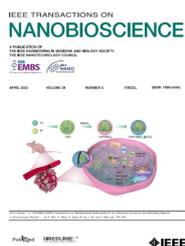
IEEE Transactions on NanoBioscience

View the [full current issue of IEEE T-NB](#).

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

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

T-NB, VOLUME 24, NO. 2



LIST OF NANOTECHNOLOGY COUNCIL OFFICERS (2024)

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