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## A Roundup of Chapter Activities, Volunteer Opportunities, and Funding Availability

In this first “Chapter News” column of 2023, I would like to welcome and express appreciation to many new Chapter officers who dedicate their time for their local communities and IEEE Members. It is also appropriate to remind our Chapter officers of the coming deadlines for submitting 2022 annual Chapter reports and making requests for funding and Chapter support for 2023 Chapter activities. The submission deadline for the Chapter annual reports is 1 March 2023. The report template and preparation guidelines are posted at the IEEE Antennas and Propagation Society (AP-S) Chapter webpage (<https://aps.ieee.org/chapters/chapters>). Requests for annual support and special project funding can be sent to AP-S Chapter Activity Committee (CAC) Chair Dr. Ajay K. Poddar at [akpoddar@ieee.org](mailto:akpoddar@ieee.org); the deadline is 1 March 2023. Chapter chairs may also want to apply for the travel grant to attend the Chapter Chairs Meeting at our flagship 2023 IEEE International Symposium on Antennas and Propagation and U.S. National Committee of the International Union of Radio Science (URSI) Radio Science Meeting, which will be held from 23 to 28 July 2023 in Portland, OR, USA.

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the world, after in-person meetings were restricted during the pandemic, depending on local government directives. It is very important for Chapters to upload their events to IEEE vTools (<https://meetings.vtools.ieee.org>) and submit a minimum of two L31 reports so that they can remain active and eligible for financial support from IEEE. This year’s flagship conference program will include a wide range of technical sessions, workshops, and short courses as well as exhibits. It will also have a range of specific activities for Students and Young Professionals (SYPs). This meeting is intended to be the premier international forum for the exchange of ideas on state-of-the-art research in antennas, propagation, electromagnetic engineering, and radio science. Through a range of technical and social activities, it will provide an opportunity to interact with the world’s leading experts in antennas and propagation from academia, industry, and government. We welcome you to attend the conference, workshops, Chapter

Chairs Meeting, and awards function at AP-S/URSI 2023.

Forming new Chapters is an excellent way to ensure that our IEEE Members can be served at the local level, which is crucial for the future well-being of our Society in a global environment. If any of you reside in a location where you do not have access to an existing AP-S Chapter and are interested in establishing a new one, please feel free to contact Dr. Poddar and AP-S Region coordinators for guidance through the petition process.

Figure 1 shows Dr. Poddar, George Kannell, and Kirit Dixit receiving the IEEE Member and Geographic Activities (MGA) 2022 Section Membership Recruitment and Retention Performance award from 2022 IEEE Region 1 Director-Elect Bala Prasanna. I want to thank Dr. Poddar for his direction, mentorship, and voluntary undertaking of the following:

- putting our Chapter officers, volunteers, and members at the heart of our Society
- acclimatizing to Chapter and member expectations, understanding that different Regions and Sections have different needs, emphasizes on the involvement of YPs and Women in Engineering (WiE), and local volunteers’ time and effort
- stimulating and endowing local AP-S Chapters by supporting technical events and Distinguished Lecturer

(DL) talks that are of interest to local communities, YPs, and WiE affinity groups and that promote science, technology, engineering, and mathematics (STEM) engagement

- expanding relationships with industry and academic institutions and increasing the associated professional networking at the local Section and Chapter levels so that the value chain has added impact
- reinforcing engagement with IEEE sister Societies, the AP-S Special Interest Group on Humanitarian Technologies (SIGHT), the AP-S Committee on Promoting Equality, IEEE Smart Village, the IEEE

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Humanitarian Activities Committee (HAC), IEEE SIGHT, and IEEE TryEngineering.

On behalf of IEEE MGA Vice President Maike Luiken and IEEE Technical Activities Vice President Kazuhiro Kosuge, it is a pleasure to inform you that the requirements of the *IEEE Member and Geographic Activi-*

*ties Operations Manual* have been met, and the IEEE Russia Section, IEEE Sensors Council, IEEE Council on Radio-Frequency Identification, IEEE Council on Electronic Design Automation, IEEE Systems Council, AP-S, IEEE Microwave Theory and Technology Society (MTT-S), IEEE Control Systems Society, and IEEE Oceanic Engineering Society Joint Chapter have been formed, effective on 7 January 2021. Start by researching your area, then decide which route will best suit your needs and support a healthy, active Society/Technical Council Chapter environment. Information is available at <https://mga.ieee.org/resources-operations/geographic-unit/chapters/how-to-create-a-new-ieee-chapter>.

**IEEE REGION 9 AP-S NORTHEAST BRAZIL SECTION WORKSHOP**

The first AP-S Northeast Brazil Section workshop, organized by the AP-S Northeast Brazil Chapter, was hosted from 14 to 15 November in the city of Natal, in collaboration with the MTT-S Northeast Brazil Chapter. Figure 2 presents the speakers and Chapter officers. This first in-person event following the pandemic brought together speakers and participants from all around Brazil. Two renowned speakers were invited: Prof. Pavlos Lazaridis, University of Huddersfield, U.K., and Prof. Simone Genovesi, University of Pisa, Italy (many thanks to the AP-S MGA for its support). Moreover, members of academic institutions in the northeast of Brazil presented



**FIGURE 1.** From left: George Kannell, L3Harris, Clifton, NJ, USA; Kirit Dixit, AP-S/IEEE Microwave Theory and Technology Society Symposium chair; and Dr. Poddar receive the 2022 Section Membership Recruitment and Retention Performance award from 2022 IEEE Region 1 Director-Elect Bala Prasanna.



**FIGURE 2.** From left: Prof. Joabso Carvalho (MTT-S vice-chair), Prof. Simone Genovesi, Prof. Pavlos Lazaridis, Prof. Alexandre Jean René Serres, Prof. Adaildo Gomes D’Assunção, Prof. Marcos Tavares de Melo, Prof. Antonio Luiz Pereira de Siqueira Campos, Prof. Alfredo Gomes Neto gather at the AP-S Northeast Brazil Section workshop.

recent research in the field of antennas and propagation:

- Prof. Marcos Tavares de Melo (MTT-S Chapter chair), Federal University of Pernambuco, presented “UFPE Microwave Engineering Research Overview.”
- Prof. Alfredo Gomes Neto, Federal Institute of Paraíba, presented “IFPB Research Group Overview.”
- Prof. Alexandre Jean René Serres (AP-S Chapter chair), Federal University of Campina Grande, presented “UFCC Research Group Overview.”
- Prof. Adaildo Gomes D’Assunção (IEEE AP-S Chapter vice-chair), Federal University of Rio Grande do Norte, presented “UFRN Recent R&D on Microwaves and Antennas.”
- Prof. Antonio Luiz Pereira de Siqueira Campos, Federal University of Rio Grande do Norte, presented “UFRN Recent R&D on FSS and Applications.”

At the same time, it was a great opportunity to promote the AP-S among professionals and students in Brazil.

### IEEE REGION 1 NORTH JERSEY AP-S/MTT-S SYMPOSIUM

The AP-S/MTT-S North Jersey Chapter successfully organized an in-person event, 36th Annual Symposium and Mini-Show on 6 October 2022,

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at Hanover Manor, East Hanover, NJ, USA. The symposium offered a series of lectures describing the state of the art in antenna design, wireless communication, filter circuit design, wideband reduced graphene optics, metamaterials, radio-frequency integrated circuits (ICs), application-specific ICs, wideband channelizers, software-defined radio, direction finding, 5G spectrum and 5G wireless networks, and quan-

tum radio-frequency and wireless technologies. With eminent speakers delivering high-quality technical talks and exhibitors showcasing their state-of-the-art products, the event drew more than 400 attendees. Glimpses of the AP-S booth, audiences, speakers, and exhibits are available in Figures 3–6. The exhibits included components, subsystems, test equipment, and CAD tools. Registration was free for IEEE Members and non-members, and complimentary breakfast, lunch, and refreshments were included.

### AP-S SHANGHAI CHAPTER ACADEMIC SEMINAR

An academic seminar, “Modeling Electromagnetic Phenomena in Large Quantum Systems,” was successfully held



**FIGURE 3.** The AP-S North Jersey Section member registration booth at the 36th Annual Symposium and Mini-Show.



**FIGURE 4.** Dr. Poddar addresses audiences at the symposium.



(a)



(b)



(c)



(d)

**FIGURE 5.** (a) Prof. Levent Sevgi (AP-S DL), (b) Prof. Ulrich L. Rohde, (c) Sohail Mohammed, and (d) Dr. Allen Katz receive plaques during the symposium.



**FIGURE 6.** Numerous vendors exhibit at the symposium.

online by the AP-S Shanghai Chapter on 23 October 2022. The seminar was given by Prof. Amir Boag (Figure 7), Department of Physical Electronics, School of Electrical Engineering, Tel Aviv University, Tel Aviv, Israel. Prof. Boag is an IEEE Fellow who is very well-known in computational electromagnetics and quantum electromagnetics. He has published more than 130 journal articles and presented more than 290 conference papers in related areas. Prof. Meisong Tong (Chapter chair), Department of Electronic Science and Technology, Tongji University, Shanghai, China, hosted the seminar. Prof. Boag started with the introduction of density functional theory (DFT) for quantum calculations. He then pointed out the challenge in both ground state and excited state DFT that is the calculation of electrostatic and electrodynamic-induced potentials as well as the Fock exchange interaction. For the ground state, he presented an accurate scalar Green's function kernel to efficiently evaluate the Hartree and Fock potentials using a fast Fourier transform to solve the Poisson equation. For the excited state, he incorporated electrodynamic fields within time-dependent DFT by considering both induced scalar and vector potentials. He then defined integral expressions for the retarded potentials of each gauge and developed a methodological approach to evaluate these nontrivial expressions at a low computational cost. Finally, he used many numerical examples to demonstrate the developed approach. A total of 254 people attended the seminar, leading to many interesting questions and providing an extensive exchange and dissemination of new knowledge in the Chapter.

### AP-S STUDENT DESIGN CONTEST

There is additional funding available for supporting Student Design Contest (SDC) cosponsored by local AP-S Chapters for the engagement of SYPs. The template for the SDC is in the special project category, and when completed, it can be sent to Dr. Poddar. The SDC and special project form and preparation guidelines are posted at the AP-S Chapter webpage (<https://aps.ieee.org/>

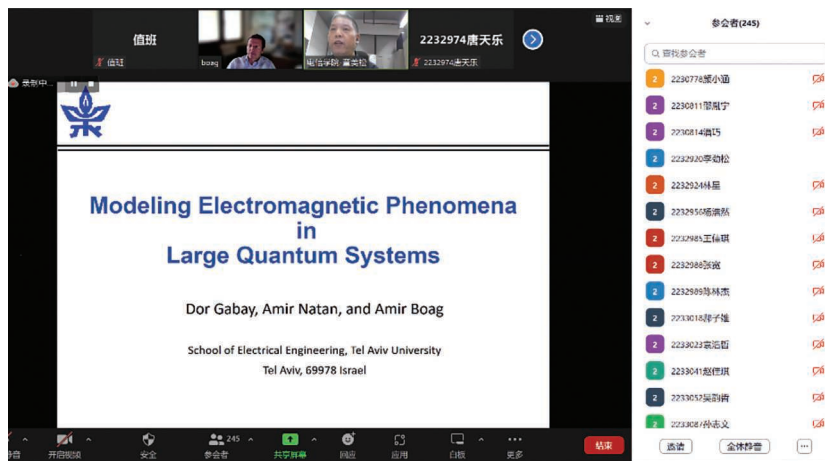


FIGURE 7. Prof. Boag presents his seminar to the AP-S Shanghai Chapter.

chapters/chapters). Requests for annual support and special project funding can be sent to Dr. Poddar; the submission deadline is 30 April 2023. The selected SDC project will be published in *IEEE Antennas and Propagation Magazine* as a part of the “Chapter News” column.

### IEEE STEM SUMMIT VIRTUAL EVENT

Building tomorrow's technical community today! Let's build our STEM community by coming together to encourage, support, and inspire one another. Register for the free IEEE STEM Summit virtual event, from 6 to 10 December 2022, at <https://stem-summit.tryengineering.org/>. Sessions include topics on STEM pedagogy, engineering education, best practices in STEM outreach, inspirational talks, and resources to empower our STEM community.

### RESOURCES FOR UNIVERSITY-LEVEL EDUCATORS: IEEE TEACHING EXCELLENCE HUB

The IEEE Teaching Excellence Hub (TEH) is a collaboration between the IEEE Educational Activities Board and the IEEE Education Society, which contains articles with an emphasis on current developments and best practices in electronic component and technology, access to current and on-demand events, and more! Explore how the TEH connects faculty to vetted and trusted resources so that they can be put into immediate practice. Share your content today by visiting <https://teaching.ieee.org/>.

### IEEE-ETA KAPPA NU GRABLAB

The IEEE-Eta Kappa Nu GrabLab YouTube series offers insightful conversations, presentations, and resources for students in or considering graduate schools. A recent episode addressed a very common concern among Ph.D. students: how to guide interpersonal relationships to manage connections in different scenarios, including those among group members, students, and principal investigators as well as among students and other collaborators. Here, the goal was to unravel the dynamics that can occur and discuss ways to overcome uncomfortable situations and enhance relationships even beyond their preassigned roles.

### RESOURCES FOR VOLUNTEERS

- A Webex event user guide is available at [https://mga.ieee.org/images/files/training/user\\_guides/Participating\\_in\\_a\\_Virtual\\_Event.pdf](https://mga.ieee.org/images/files/training/user_guides/Participating_in_a_Virtual_Event.pdf).
- Interested in using Google Meet? Find out more at <http://meet.google.com> or send us an email at [mga-im@ieee.org](mailto:mga-im@ieee.org).
- Find volunteer training and resources at the IEEE Center for Leadership Excellence at <https://ieee.learningpool.com/>.
- The IEEE Learning Network gives Members easy access to online learning content from across IEEE, all in one place. Browse hundreds of courses on core and emerging technologies, leadership skills, and more.

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## ELECTROMAGNETIC MATERIALS AND MEASUREMENTS: RAM, RADOME AND RAS

9–11 May 2023, Atlanta, GA, USA. Georgia Institute of Technology, Professional Education, P.O. Box 93686, Atlanta, GA 30377-0686 USA. +1 404 385-3500, fax: +1 404 894-8925. <http://www.pe.gatech.edu>.

## RADAR CROSS SECTION REDUCTION

5–7 June 2023, Atlanta, GA, USA. Georgia Institute of Technology, Professional Education, P.O. Box 93686, Atlanta, GA 30377-0686 USA. +1 404 385-3500, fax: +1 404 894-8925. <http://www.pe.gatech.edu>.



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- The following IEEE resources can also be useful for organizers looking to virtualize their events: IEEE TV's video "Recording Your Presentation with Zoom," at <https://ieeetv.ieee.org/ieeetv-specials/recording-your-presentation-with-zoom>, and MGA vTools resources, at <https://site.ieee.org/vtools/>.

I would like to encourage everyone to find more opportunities to volunteer and contribute toward a worthy cause and benefit our Members and community.

### IEEE AP-S ULRICH L. ROHDE HUMANITARIAN TECHNICAL FIELD PROJECTS AWARD

Proposals containing project details and a budget can be submitted to Dr. Poddar and Dr. Jawad Siddiqui, AP-S SIGHT committee chair. The submission deadline is 31 March 2023. The project selection process is in line with IEEE SIGHT and HAC project Awards. The evaluation of proposals will be based primarily on technical content. After project completion, the Awards Committee will explore follow-up activities for low-cost production of the proposed technology, which is the key requirement for humanitarian needs. The announcement of the award will be made at the annual awards ceremony of the AP-S flagship conference. The recipient will receive a plaque and

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cash prize for the completion of the project. The name(s) of the award recipient(s) will be published in *IEEE Antennas and Propagation Magazine* and on the AP-S website. A complete explanation of the technology will be uploaded to the AP-S SIGHT webpage (<https://www.ieeeaps.org/committees/ieee-aps-sight>).

### FUNDING OPPORTUNITY FOR AP-S CHAPTERS

The AP-S and IEEE HAC have collaborated to offer a special call for proposals to support AP-S Chapter projects that utilize AP-S-relevant technology to address local challenges. Awards of up to US\$3,000 will be made to selected projects that present a convincing plan to 1) understand the real needs of a local community or local stakeholder organization and 2) complete, in no more than six

months, a pilot project utilizing AP-S-relevant technology to address those local community challenges. For more information, please visit the HAC website. The AP-S and IEEE HAC special call for proposals is supported, in part, by the IEEE SIGHT Fund of the IEEE Foundation.

The AP-S Education Committee posts design contest reports and lecture videos on YouTube, at <https://www.youtube.com/channel/UCW1mPyKpC0Fhqt1zD89knHg>, and educational materials are hosted at <https://ieeeps.org/education/educational-resource>. Some of our program coordinators would like to use other social media channels to disseminate more types of content. The AP-S has a Facebook page at <https://www.facebook.com/IEEE-Antennas-and-Propagation-Society-491735170842395/>. Please contact Dr. Poddar for more information. On behalf of the CAC, I encourage Chapter officers and volunteers to create new contents for the benefit of our members. Our Society has a long-standing student research grant program for doctoral and undergraduate research (<https://ieeeps.org/education/education-research-travel-grants>).

