



President's Column

Administrative Committee Experience

■ Gregory Lyons

This month, it is my pleasure to introduce you to our president-elect for 2021, Rashaunda Henderson, as well as three IEEE Microwave Theory and Techniques Society (MTT-S) Administrative Committee (AdCom) members—Wenquan (Cherry) Che, Goutam Chattopadhyay, and Nuno Borges Carvalho—who were re-elected to a second three-year term (2021–2023) during our fall (now designated AM3) AdCom elections in September 2020. They have all provided a brief biography and a statement of their perspectives on the MTT-S. The perspectives of these experienced AdCom members are important because it is our AdCom that keeps the MTT-S healthy and moves it in new directions for the benefit of our overall Society membership.

The MTT-S AdCom voting membership consists of elected and ex-officio members. There are typically 21 elected members divided into groups



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of seven, each serving staggered three-year terms. Starting in 2019, two of the seven for each three-year term are elected by the MTT-S membership at large (previously, only one was). The remaining five for each term are elected by the MTT-S AdCom.

There are term limits for elected AdCom members of three three-year terms, for a total of nine years. Ex-officio members of the AdCom include the three most recent past presidents, honorary life members of the AdCom, and the editors-in-chief of our publications.

The complete organization of the AdCom can be found on our website at <https://www.mtt.org/administrative-committee-officers>.

The MTT-S is a very active IEEE Society. If you would like to get involved as a volunteer in the MTT-S, fill out a contact form at <https://www.mtt.org/connectme>, and we will make sure you get connected.

Rashaunda M. Henderson

Rashaunda M. Henderson (Figure 1) received the B.S.E.E. degree with highest honors from Tuskegee University, Alabama, in 1992. She received the M.S. and Ph.D. degrees in electrical engineering from the University of Michigan, Ann Arbor, in 1994 and 1999, respectively. From 2000



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to 2007, she was an R&D device engineer at Freescale Semiconductor, Inc. (formerly Motorola Semiconductor Product Sector) in Tempe, Arizona, working in the microwave and mixed-signal technology labs for wireless embedded systems. In fall 2007, she joined the University of Texas at Dallas in Richardson, Texas, where she is an associate professor. She is cofounder of the High-Frequency Circuits and Systems Laboratory, which facilitates millimeter-wave design and the development of components, circuits, and integrated packages and antennas for communication systems. She has authored/co-authored more than 90 journal and conference papers/presentations in the field of microwave circuits and electronic packaging for high-frequency applications.

President-Elect Perspectives

I aspire to lead the MTT-S into this new decade as we face a world that has dramatically changed as a result of the pandemic. Due to the global shutdown, we all clearly understand our dependence on the advances and infrastructure that have been afforded us by microwave theory and technology.

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This pause in our normal way of doing things has also created opportunities to explore how the MTT-S can make contributions in health care, aerospace, safety, and security. I look forward to

working with the MTT-S AdCom to continue to maintain our relevance and seek ways to inspire and educate today's youth and young professionals. It is through our continued efforts to collaborate with other Societies and maintain a global presence that we will succeed and develop pathways allowing us to grow. In spite of what it looks like today, the best is yet to come!

Wenquan (Cherry) Che

Wenquan (Cherry) Che (Figure 2) received the B.Sc. and M.Sc. degrees from Nanjing University of Science and Technology in 1990 and 1995, respectively, and the Ph.D. degree from City University of Hong Kong (CityU), China, in 2003. She was a research assistant with CityU in 1999, a visiting scholar with the Polytechnique de Montréal of Canada in 2002, and a Humboldt Research Fellow at the Technische Universität München from 2007 to 2008. She is currently a

professor at the South China University of Technology. She has published more than 250 international journal articles. Her research interests include microwave circuits and antenna technology. She has received numerous awards, including the China Young Female Scientists award in 2008, Distinguished Young Scientist award from National Natural Science Foundation of China in 2012, and several IEEE Best Student Paper awards from the 2017 IEEE Global Symposium on Millimeter-Waves, 2016 IEEE International Conference on Microwave and Millimeter-Wave Technology, 2016 IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes, and 2015 IEEE Asia-Pacific Microwave Conference. She is currently the editor-in-chief of *Microwave and Optical Technology Letters*.

AdCom Member Perspectives

I am highly motivated to continue my service in the MTT-S AdCom and to help our Society in its further advancement over the coming years. First, I hope to promote the vision and value of the MTT-S within/outside the microwave community and attract more active members. This requires dynamic Chapter-level activities sponsored through the MTT-S AdCom's Education and Membership and Geographic Activities (MGA) committees, both of which can provide incentives



Figure 1. Rashaunda M. Henderson.



Figure 2. Wenquan (Cherry) Che.



Figure 3. Goutam Chattopadhyay.

and benefits through high-quality programs and events.

Second, I hope to expand the technical boundary of the MTT-S and explore cross-discipline fields. This can be achieved through new conferences and journals sponsored jointly with other sister/partner Societies, reshaping our Society for its sustainable development.

Third, I hope to inspire women and young professionals in the MTT-S through their augmented visibility in the microwave community. For such purposes, professional and social events organized through the Education Committee and the Women in Microwaves Subcommittee under the MGA Committee can provide helpful opportunities and platforms.

Goutam Chattopadhyay

Goutam Chattopadhyay (Figure 3) is a senior research scientist at the NASA Jet Propulsion Laboratory, California Institute of Technology (Caltech), and a visiting professor at Caltech, Pasadena. He received the Ph.D. degree in electrical engineering from Caltech in 2000. He is a Fellow of IEEE and of the Institution of Electronics and Telecommunication Engineers (India) as well as an MTT-S Distinguished Microwave Lecturer (DML). His research interests include microwave, millimeter-wave, and terahertz systems and radars for space applications. He has more than



Figure 4. Nuno Borges Carvalho.

350 publications in international journals and conferences and holds more than 20 patents. He is also the recipient of more than 35 NASA Technical Achievement and New Technology Invention awards. He received the IEEE Region 6 Engineer of the Year award in 2018, the IEEE Transactions on Terahertz Science and Technology Best Journal Paper award in 2020 and 2013, and the Best Paper award for antenna design and applications at the 2017 European Conference on Antennas and Propagation.

AdCom Member Perspectives

As a DML, I traveled the globe interacting with students, young professionals, researchers, industry experts, and others and observed firsthand their enthusiasm about microwaves, millimeter-waves, and terahertz. At the same time, there is a lack of growth in MTT-S membership. It is crucial that we find new ways to attract students and young professionals to our Society. We need to strengthen our DML program so that many DMLs can travel the world,

especially Region 10 (Asia-Pacific) as well as Africa and the Middle East, where membership growth potential is huge. There is tremendous hunger among the students in these areas to learn about microwaves, but they lack resources to attend conferences outside their Region.

As an MTT-S AdCom member, my focus will be on Women in Microwaves and Young Professionals events. It is imperative that we address gender inequality and diversity. Our success depends on catching the imagination of the next generation of engineers, of all colors, creeds, and genders, and filling it with a future in microwaves.

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Nuno Borges Carvalho

Nuno Borges Carvalho (Figure 4) is currently a full professor and a senior research scientist with the Institute of Telecommunications, University of Aveiro, Portugal, and a Fellow of IEEE. He has coauthored several books

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TABLE 1. Current MTT-S webinars scheduled for the first half of 2021.

2021 Webinar Dates	Title	Presenters	Affiliation
9 February	The Future of Battery-Free RF/Microwave Systems	Prof. Alessandra Costanzo	University of Bologna
11 March	Exploring Online Presentation Skills for Engaging Your Audience	Dr. John Bandler and Dr. Erin Kiley	McMaster University and Massachusetts College of Liberal Arts
13 April	Quantum Computing with Microwaves	Prof. Joseph Bardin	University of Massachusetts, Amherst
11 May	Power Amplifiers for High Efficiency Above 100 GHz	Prof. Jim Buckwalter	University of California, Santa Barbara
22 June	Measured System Point-Spread Functions Enable Real-Time Quantitative Imaging	Prof. Natalia Nikolova	McMaster University
13 July	Time-Varying Transmission Line (TVTL) for Broadband, Low Noise, Nonreciprocal, and Cross-Frequency RF Applications	Prof. Y. Ethan Wang	University of California, Los Angeles

providing a brief abstract, biography, and sample slides.

References

- [1] R. K. Gupta and M. Hamilton, "MTT-S Education Committee Launches successful 2016 webinar series [Education News]," *IEEE Microw. Mag.*, vol. 17, no. 11, pp. 84–91, Nov. 2016. doi: 10.1109/MMM.2016.2601539.
- [2] R. K. Gupta and M. C. Hamilton, "MTT-S 2017 webinar series: Another successful year of collaborative learning [Education News]," *IEEE Microw. Mag.*, vol. 19, no. 2, pp. 100–101, Mar./Apr. 2018. doi: 10.1109/MMM.2017.2781159.
- [3] R. K. Gupta and M. C. Hamilton, "IEEE MTT-S 2018 webinar series: Speaker biographies and webinar abstracts [Education News]," *IEEE Microw. Mag.*, vol. 20, no. 3, pp. 93–100, Mar. 2019. doi: 10.1109/MMM.2018.2885672.



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including *Intermodulation in Microwave and Wireless Circuits*, *Microwave and Wireless Measurement Techniques*, *White Space Communication Technologies*, and *Wireless Power Transmission for Sustainable Electronics*. He is the editor-in-chief of *Wireless Power Transfer Journal* (Cambridge University Press), an associate editor of *IEEE Microwave Magazine*, and a former associate editor of *IEEE Transactions on Microwave Theory and Techniques*. He is a member of the MTT-S AdCom, past chair of the IEEE Portuguese Section, past chair of MTT-S Technical Committees MTT-20 and MTT-11, and a member of Technical Committees MTT-24 and MTT-26.

He is vice chair of the International Union of Radio Science Commission A (Metrology Group). He received the 2000 Institution of Electrical Engineers Measurement Prize and has been a DML for the MTT-S.

AdCom Member Perspectives

The MTT-S has made a huge impact in my research life. Participating in the IEEE MTT-S International Microwave Symposium is an achievement in and of itself. I see the MTT-S as the RF and microwave hardware community. All new emerging hardware technologies have a voice in MTT-S conferences and journals. Participating in MTT-S meet-

ings and publishing in journals such as *IEEE Transactions on Microwave Theory and Techniques* and *IEEE Microwave Magazine* allow us to be among the technology visionaries who will shape our future. This is why I am motivated to be actively involved in improving awareness within IEEE of the importance of RF/microwave hardware design. Encouraging students and drawing engineers to participate in our conferences, meetings, and publications will allow them to recognize that the MTT-S is the true source of information and a driving force for hardware research within the engineering community.

