



# President's Column

## Introducing New AdCom Members

■ Gregory Lyons

Each year, the IEEE Microwave Theory and Techniques Society (MTT-S) elects seven voting members to our Administrative Committee (AdCom) for a three-year term. This month, it is my pleasure to introduce you to four new AdCom members who were elected to a 2021–2023 term during our Fall 2020 AdCom elections. They are Sridhar Kanamaluru, who served as the 2020 AdCom secretary; Kamran Ghorbani, a previous AdCom member; Robert Caverly, editor-in-chief of *IEEE Microwave Magazine*; and Xun Gong, an active MTT-S volunteer. In addition, I am pleased to introduce the 2021 AdCom secretary, Joseph (Joe) Bardin, another dedicated MTT-S volunteer.

Each new AdCom member has provided a brief biography and a statement of his perspectives on the MTT-S, representing a snapshot of where the Society is likely heading in the near future. It is the job of the AdCom to keep the MTT-S healthy and move the Society in new directions for the benefit of our membership, the microwave engineering profession, and humanity. The complete AdCom orga-



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nization can be found at [www.mtt.org/administrative-committee-officers](http://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, fill out the contact form at [www.mtt.org/connectme](http://www.mtt.org/connectme), and we will make sure you get connected.

### New AdCom Members

#### Sridhar Kanamaluru

Sridhar Kanamaluru is the chief architect for aerospace instrumentation at Curtiss-Wright, serving the U.S. Department of Defense flight test instrumentation industry. He received his B.S. degree from Anna University, Chennai, India, in 1987 and his M.S. and Ph.D. degrees from Texas A&M

University, College Station, in 1993 and 1996, respectively. Since then, he has served in increasingly senior roles in the microwave industry, including as senior antenna engineer (Millitech), manager of microwave systems (Sarnoff), director of engineering (Herley), and principal scientist (DRS Technologies). He has also been an adjunct professor at the New Jersey Institute of Technology and Villanova University. He has served the MTT-S in various capacities, including a member of Technical Committee MTT-8, a member

multiple times on the Technical Program Review Committee of the IEEE MTT-S International Microwave Symposium (IMS), IMS2018 general chair, and MTT-S 2020 AdCom secretary.

### AdCom Member Perspectives

My experience with the Society's activities, as IMS general chair and AdCom



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Sridhar Kanamaluru.

secretary, has shaped my objectives for how to serve the Society. The IMS is the single greatest Society asset to reach our worldwide members and industry partners and to share and exchange information interactively. To address new realities related to face-to-face and virtual meetings, I strongly advocate that future IMS meetings provide recordings of all workshops and technical sessions, even when in-person gatherings are possible. The recorded sessions, hosted in the MTT-S Resource Center, would enable industry practitioners to access materials at their convenience, thereby increasing the Society's value. In addition, because future technical advancements will require a multidisciplinary skillset, I plan to engage with sister Societies that strongly overlap with the MTT-S field of interest, such as the IEEE Aerospace and Electronic Systems Society, the IEEE Communications Society, and the Association of Old Crows, to provide multidisciplinary "system" workshops at conferences and Chapter meetings to benefit industry practitioners and increase new member recruitment.

### **Kamran Ghorbani**

Kamran Ghorbani received his B.Eng. degree (with honors) and his Ph.D. degree from RMIT University, Melbourne, Australia, in 1994 and 2001, respectively. From 1994 to 1996, he was a graduate RF engineer with AWA Defense Industries, working on early warning radar systems.

In June 1996, he joined RMIT to pursue his Ph.D. studies. From 1999 to 2001, he was a senior RF engineer with Tele-IP, working on very-high-frequency transceivers for commercial aircraft. He joined the Department of Communication and Electronic Engineering (now the School of Engineering) at RMIT University in 2001 as a continuing academic. Prof. Ghorbani is currently the director of the Communication Technologies Research Center, RMIT University. He is responsible for strategic planning and management. His research interests include multifunctional structure, radar systems, ferroelectric materials, metamaterials, RF energy harvesting, and composite materials for RF applications.

### **AdCom Member Perspectives**

I see four areas of focus for the MTT-S:

- 1) *Bridge academia and industry:* Increase membership and involvement from industry, initiate large and small industry projects, and involve industry in more technical committees/activities and conference organization. Enhance the career platform session at both large and small conferences, where industry can meet academics and young professionals.
- 2) *Promote diversity:* Increase activities and committee participation with Young Professionals and Women in Engineering. Provide funding packages such as dedicated scholarships and travel allowances for developing countries
- 3) *Membership development:* Enhance member activities at smaller conferences, including student competitions,

conference travel allowances, and industry workshops. Create new student travel grants, expand fellowships, and expand webinar topics. Create attractive membership packages.

- 4) *Global vision:* Expand and enhance the collaboration between the MTT-S, European Microwave Association, Asia-Pacific Microwave Conference, and sister Societies.

### **Robert H. Caverly**

Robert H. Caverly received his B.S. and M.S. degrees in electrical engineering in 1976 and 1978, respectively, from North Carolina State University, Raleigh. He received his Ph.D. degree from Johns Hopkins University, Baltimore, Maryland, in 1983. His first academic position, in 1983, was in the Department of Electrical and Computer Engineering, Southeastern Massachusetts University, which later became the University of Massachusetts–Dartmouth. In 1997, he joined Villanova University, Pennsylvania, where he is currently a professor in the Department of Electrical and Computer Engineering. He has published more than 100 journal and conference papers and is the author of the books *Microwave and RF Semiconductor Control Device Modeling* (2016) and *CMOS RFIC Design Principles* (2007). In 2014, he was appointed an MTT-S Distinguished Microwave Lecturer (DML), with the talk "RF Aspects of Magnetic Resonance Imaging," and he is currently an Emeritus MTT-S DML. An IEEE Life Fellow, Prof. Caverly is the editor-in-chief of *IEEE Microwave Magazine*.



Kamran Ghorbani.



Robert H. Caverly.

## AdCom Member Perspectives

As editor-in-chief of *IEEE Microwave Magazine*, as well as during my tenure as a DML, I have personally seen the vibrant technical expertise that is the hallmark of the MTT-S as the “Megahertz to Terahertz Community.” Transmitting this vibrancy to current and next-generation microwave engineers is crucial if the MTT-S is to continue to be the leader of the microwave/RF community. Our mission will require a deep commitment to reach out to all fields that fall within our MHz to THz Community. Expanding our influence includes welcoming technical areas that might be considered outside traditional microwaves but still within our field of interest. It also includes educational outreach beyond just academia, working with our Young Professionals to welcome them to the field and increasing support to further stimulate interest in microwaves through Women in Microwaves and other outreach activities among a globally diverse audience, especially in Regions 9 and 10 and in Africa.

### Xun Gong

Xun Gong received his B.S. and M.S. degrees in electrical engineering from Fudan University, Shanghai, China, in 1997 and 2000, respectively, and his Ph.D. degree in electrical engineering from the University of Michigan, Ann Arbor, in 2005. He is currently the Lockheed Martin Professor of Electrical and Computer Engineering at the University of Central Florida, Orlando, and director of the Antenna, RF, and Microwave Integrated Systems Labo-



Xun Gong.

ratory. His research interests include microwave passive components and filters, sensors, antennas and arrays, flexible electronics, and packaging. He has more than 130 publications and holds four patents in his field. He served as associate editor of *IEEE Transactions on Microwave Theory and Techniques* and *IEEE Microwave and Wireless Components Letters*. He is currently the MTT-S Region 3 Chapter coordinator.

### AdCom Member Perspectives

My journey in the MTT-S began during IMS2002, in Seattle, Washington, as a Ph.D. student. Since then, I have engaged in various MTT-S activities through conference presentations, local Chapters, conference organization, editorial boards, associate editorships, technical coordinating committees, and regional coordinators. I benefited from what the MTT-S generously offered, and I would like to contribute to the MTT-S in return, particularly through promoting microwave education among students and membership development through Chapters. Efforts in developing global MTT-S-related educational materials are critical for the microwave community and for attracting students to study microwaves. I believe that effectively connecting MTT-S members in academia, industry, and government is the key factor to promoting education, employment, and conferences and can assist microwave practitioners with continued education.

### Joseph Bardin

Joseph Bardin is a full professor of electrical and computer engineering at the University of Massachusetts–Amherst and a research scientist with Google Quantum AI. His research interests include the design and use of integrated circuit technologies for scientific applications, such as quantum computing and radio astronomy. In addition to his MTT-S AdCom appointment, Prof. Bardin serves as a Steering Committee member and associate editor of *IEEE Transactions on Quantum Engineering*, a track editor for *IEEE Journal of Microwaves*, and a member of the MTT-S Working Group on Quantum Computing as well as Technical Com-



Joseph Bardin.

mittees MTT-4 and MTT-11. He is the recipient of a 2011 DARPA Young Faculty Award, a 2014 National Science Foundation CAREER Award, a 2015 Office of Naval Research Young Investigator Program Award, a 2016 University of Massachusetts College of Engineering Outstanding Junior Faculty Award, a 2016 University of Massachusetts Convocation Award for Excellence in Research and Creative Activity, and a 2020 MTT-S Outstanding Young Engineer Award.

### AdCom Member Perspectives

Throughout my academic and professional career, the MTT-S has been my go-to technical community, and I am enthusiastic to have the opportunity to contribute to this great Society through AdCom service. Historically, MTT-S members have been responsible for critical technological developments in the communications, aerospace, health-care, and security industries, and, in the coming decades, we can expect that new applications of microwave technologies will drive the development of markets that critically rely on MTT-S engineers. In fact, we are already seeing this with the rapid growth in the field of quantum computing. To support future needs, it is essential that the MTT-S inspire and educate a new generation of microwave engineers. Moreover, to build the best possible MTT-S of tomorrow, it is critical that we seek to structure our activities to maximize diversity, equity, and inclusion within today’s Society.

