Women in Microwaves

SHE: Smart, Humble, and Enthusiastic: The Women in Microwaves Session at IWS2022

■ Hui Li and Wenquan Che

What is the impression of the word *she* when it comes to your mind? Smart or sensitive? Humble or helpful? Excellent or emotional? How can we build a more gender-inclusive society in the field of science and technology by benefitting from the contributions of women? To address these topics, a special session of Women in Microwaves (WiM) and Wireless was held on the afternoon of 14 August 2022 in Harbin, China, along with the 2022 IEEE Microwave Theory and Technology Society's IWS2022, one conference among the 2022 China Microwave Week. The special session was organized by the MTT-S WiM subcommittee. More than 30 people attended this event in person or virtually, including graduate students and male and female scientists in the area of microwave technology (Figure 1).

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Figure 1. *A group photo of some attendees at the WiM session at IWS2022.*

Prof. Hui Li from the Dalian University of Technology, China, chaired the session. She first introduced the invited panelists and also shared her viewpoints on the motivation for this event [Figure 2(a)]. In the warm-up speech by Prof. Li, Chinese astronaut Yaping Wang, who is the first Chinese woman to perform a spacewalk and set a new record for the longest stay in space by a Chinese astronaut, was given as a role model. Features of males and females were also discussed.

Afterward, Prof. Wenquan Che, who is an IEEE Fellow and IEEE MTT-S AdCom member, delivered a technical report, "Low-Loss Transmission and

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virtual booths at the exhibition and their logos prominently displayed next to the presentation screen. IMaRC2021 sponsors included the following:

- *Platinum*: Rohde and Schwarz, Dassault Systemes Simulia, Agmatel, and Keysight
- *Gold*: CADFEM–Ansys
- *Silver*: Anritsu.

Special industry-sponsored workshops were organized with industry participation during IMaRC2021.

It is important to note here that IMaRC2021 represented last of the annual IMaRC series of conferences, which have been held in India since 2013. Both the MTT-S and AP-S Administrative Committees have decided to combine the IMaRC sponsored by the MTT-S and the International Conference on Antennas and Propagation sponsored by the AP-S into a jointly sponsored IEEE Microwaves, Antennas, and Propagation Conference (MAPCon 2022) to be held in Bangalore, India, 12–16 December 2022 (Figure 8). We hope to see you there!

Acknowledgment

We would like to acknowledge the efforts of numerous people who made the IMaRC series of conferences and IMaRC2021 a grand success in India and internationally. Our sincere thanks to members of the MTT-S IMaRC Executive Committee, IMaRC2021 Organizing Committee, contributing authors, invited and plenary speakers, paper reviewers, local organizers, hybrid platform providers, our many committed volunteers, and particularly our student participants, who contributed to make IMaRC2021 a grand success.

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(a) (b)

Figure 2. *(a) Prof. Hui Li delivering the warm-up speech and (b) Prof. Wenquan Che giving an invited talk.*

(a) (b)

Figure 3. *Panel discussions: (a) Prof. Sha shares his opinions and (b) an overview.*

High-Efficiency Radiation of Terahertz Waves" [Figure 2(b)]. Leading works in the frontier fields of microwaves have been carried out by two female Ph.D. students, using their wisdom and persistence. The technical report inspired young researchers to take on the challenge of new things in a cutting-edge area and break out of their comfort zones.

During the panel discussion, the "leaky pipeline" of female scientists was discussed along with some statistics on top scientists in science, technology, engineering, and mathematics (STEM), which led to a warm discussion on how to address the phenomenon. Prof. Wei Sha (Figure 3) shared his successful experiences in supervising female Ph.D. students by offering encouragement and striving together. Prof. Che added comments about the importance of inner motivation. The panelists online also expressed their opinions on the unbalanced number of male and female scientists in STEM. Stories of hidden figures who have made important contributions to the history of science were then brought up. Prof. Jiaran Qi also shared some interesting demonstrations of the Lorenz law, which was created by a Finnish female researcher, to show the special viewpoints of women scientists. Other topics, from personal growth to mutual cooperation, were discussed as well.

Finally, Prof. Li gave a concluding remark, noting that women should be self-motivated and, at the same time, search for help and cooperation by using the strengths of their own personalities. The WiM event was a valuable platform to attract more female professionals to the microwave community and increase the visibility of women in this field.