



Women in Microwaves

IEEE Women Who Shine

■ Fauziahanim Binti Che Seman

When Sherry Hess approached the Women in Microwave (WiM) subcommittee about writing articles for the *IEEE Microwave Magazine* “Women in Microwaves” column, I was quick to accept, not realizing that this would be my very first nontechnical article published. I’ve been a part of the WiM team since 2018, and over the years I have tried to blend the valuable tips I have obtained in a few inspirational books for women in engineering with my own experiences. I hope it may inspire other beautiful women to shine in their roles. In my experience, the keys to success include networking, making connections, reputation, and mentoring.

Networking

My name is Fauziahanim Che Seman, and I have been actively involved in volunteering for IEEE since 2014, having become a Member after completing



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my master’s degree in 2004. My very first involvement was through the IEEE Malaysia Asia Pacific Microwave Theory and Technology Electromagnetic Compatibility (AP/MTT/EMC) Society when I was encouraged by Prof. Zazar Mohd Jenu to attend the Chapter’s Annual General Meeting in 2014. He is one of the Chapter’s founders and was a professor of electromagnetic compatibility at the Universiti Tun Hussein Onn Malaysia. I was nominated to be on the Executive Committee, where I learned about conducting Chapter and other activities. After getting to know the Chapter committee and other Chapter members in the first few years of my involvement, I was nominated to be a secretary from 2015

to 2017 and later became Chapter chair from 2018 to 2020.

What I discovered is that networking starts within a small circle of people around us who are linked by mutual interests and meaningful two-way communication, and our connections are strengthened within the workplace, community area, and beyond them. Our networks need to continually grow. Being in the IEEE community helps to greatly increase those connections, and active engagement allows us to obtain and pass along information and develop personal relationships on various levels.

Making Connections

Meeting our peers in other organizations is important for professionals and engineering people. We can do this through personal contacts, during external meetings, at conferences, and at professional associations. Frequent conference attendees will confirm that the most valuable information is passed not in formal sessions but during social events. Find nearby IEEE conferences conducted regularly and take the opportunity to greet and meet new people during tea and lunch breaks.

My involvement with WiM began when Prof. Wenquan (Cherry) Che

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Figure 1. Prof. Che (right) and me having dinner during the 2017 APMC Steering Committee meeting.

(Figure 1) approached me at a dinner in conjunction with the steering committee meeting of the IEEE 2017 Asia-Pacific Microwave Conference (APMC 2017) and asked me to take on the role of 2017 APMC technical program chair (Figure 2). The conversation started because we had the same surname and culminated with the offer of an opportunity to be a part of WiM under the IEEE Microwave Theory and Technology Society. Financially supported by WiM, we organized a WiM event in Malaysia and gathered WiM. Our Chapter's first scheduled event was a WiM special session conducted in conjunction with the 2018 IEEE RF and Microwave Conference (RFMC) in Penang (Figure 3). Prof. Che and I continue to keep in touch online and, of course, we meet physically during IEEE-related events. This is how the WiM community grew in Malaysia.

Reputation

Women should consistently participate in professional associations and events. If you are unable to be active in multiple organizations due to time or commitment concerns, then choose the most prestigious one. You may meet familiar faces from time to time, and the connection may strengthen with more profound relationships

such as research collaborations. When you join, do something to create a positive reputation. When others become aware of your presence, continue to actively participate and your reputation will grow. Our reputation in our networks is based on what we know, what we have done, and who noticed. Even supervising an undergraduate in the IEEE Mentoring Program or any involvement in IEEE activities in the local community will help further your presence. In one case, a few young academics consistently won IEEE student awards and were later invited to conduct knowledge sharing. Some activities may not seem important, but they do impact your networks.

Additionally, work on a committee or volunteer for IEEE activities. Work in a team to share the effort and create a more significant impact. Take the time to nurture the network and further your reputation within the IEEE community. I push myself to attend at least two IEEE events annually to maintain my career growth. Any event conducted yearly will do, such as the Annual General Meeting or IEEE flagship conferences. In Malaysia, the AP/MTT/EMC Joint Chapter (Figure 4) organizes IEEE RFMC and the Asia-Pacific Conference on Applied Electromagnetics (APACE) biannually. Being a part of the Chapter committee allows me to access IEEE Members' talent pool and meet people working in the same research field.

Mentoring

Mentors are people with experience and information on a particular subject



Figure 2. The author congregating with other steering committee members during the dinner.



Figure 3. The first WiM activities conducted by the Chapter.



Figure 4. Participants during the IEEE Malaysia AP/MTT/EMC Joint Chapter Annual General Meeting.

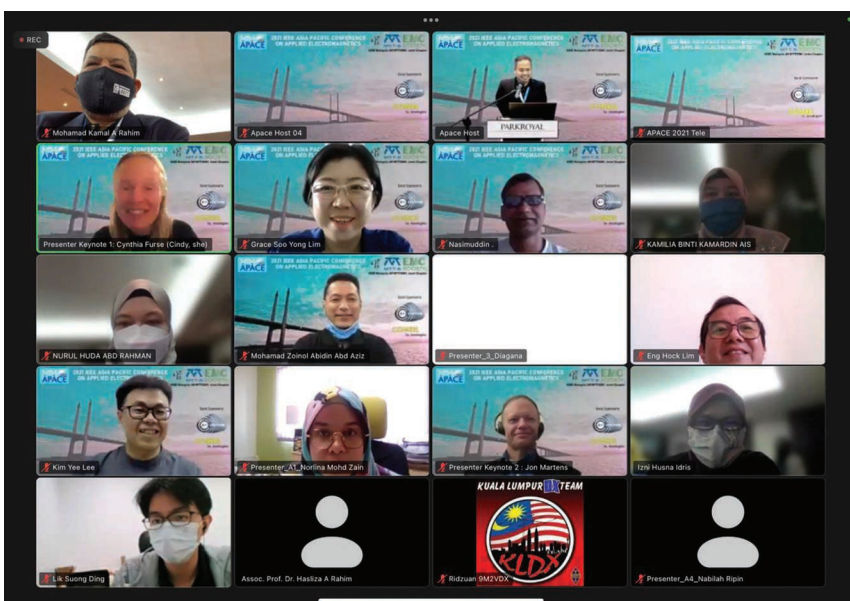


Figure 5. APACE 2021 keynote speaker Prof. Cynthia Furse participated in an online networking session that became a WiM mentoring session.

who are willing to provide advice and support. A mentor may connect us to another part of the network. An IEEE organization such as WiM also functions as a group mentor. Women's mentoring is especially important for career success because typically, mentoring relationships, especially informal ones, are more likely to be available to men than women in fields where men are predominant. Women generally have a higher commitment to the family;

hence, they are looking for women mentors who understand these issues.

We conducted an online discussion with women members of the Antenna, Microwave & EMC support group in 2021, and there were approximately 25 women who joined the event. It was open to non-IEEE members because we wanted to make the event a platform for a membership drive. We did a simple survey on participation background and experiences and discovered that

80% were from academic institutions and 60% were in the early stage of their career (fewer than 10 years) and were looking for a role model to inspire them to move forward and achieve something big soon. They requested the Chapter to conduct more activities focused on career planning and preparation and how best to overcome the challenges of working in a predominantly male field.

Luckily, our Malaysia Chapter requires that three or four out of 10 members on committees be women, which we believe helps execute ideas more quickly. At APACE 2021, keynote speaker Prof. Cynthia Furse participated in an online networking session that was intended to be a general networking session but turned into an ad hoc WiM mentoring session (Figure 5). The session discussed research interests of the participants and provided tips on finding a mentor to help grow careers more quickly and cope with work and family matters.

Conclusions

In this article, I touched on four essential topics for women wanting to grow their careers: networking, making connections, reputation, and mentoring. I hope it inspires other women in engineering to keep, join, and stay in their fields as we are the IEEE women who outshine others.

