AP-S Young Professional Ambassador Program - Update

Qammer H. Abbasi

1. Introduction

In 2021, IEEE AP-S Young Professional Committee started the new initiative IEEE AP-S Young Professional (YP) Ambassador Program, which is now in its second year. Objective of this program is to inspire and inform AP-S Young Professionals on a variety of topics both technical and non-technical to enhance their interest and engagement in the field of Antennas and Propagation by delivering the talks at various chapters/sections "on-demand" virtually, in addition to getting involved in various IEEE AP-S YP activities. The call for nominations is scheduled to open in July with deadline to submit nominations by end of October of the same year. To be eligible, candidate should be an IEEE AP-S member, belong to IEEE YP Group as defined by IEEE (IEEE members and volunteers who have graduated from their first professional degree within the past 15 years) and 5 years or more experience reflecting professional maturity. The call for candidates will open once a year and Ambassadors are selected for a term of 1 year. The one-year term of selected candidate starts from January of following year. *All new Ambassadors are required to give at least two talks during the tenure of one year.*

2. Selection Process

IEEE AP-S YP Sub-committee was formed chaired by Qammer H. Abbasi and with the members, Nelson Foneseca, Asimina Kiourti, Debdeep Sarkar and Jiang Zhu to manage the nomination and selection process of the YP Ambassadors. Each candidate was asked to submit the nomination package with four mandatory files to the chair including, resume (2 pages maximum), title (s) of the maximum two talks, a brief writeup on benefits of the talk proposed to the AP-S YP Community and a 5 min short video sample of any proposed talk. Using the nomination package, each candidate was reviewed by two independent sub-committee members and given a score against three criteria's i.*e.,* presentation skills (35%), a growing trajectory of accomplishment in the field of Antennas and Propagation (35%) and a quality and relevance of proposed lectures to YP (30%). The final weighted average score for each candidate was compiled and the selected candidates nomination was put forward to IEEE AP-S YP committee for the approval of final candidate list based on the score.

3. Accomplishments of 2022 AP-S YP Ambassadors

For the year 2022, a total of 12 Ambassadors were selected [1] and are shown in Figure 1. They successfully gave more than 50 talks virtually at various IEEE Sections and AP-S Chapters across the world. Distribution of their talks at chapters at various countries is shown in Figure 2. In addition, Ambassadors led various activities at IEEE Antennas and Propagation symposium held in Denver, Colorado (July 10-15th, 2022) [2]. They also contributed to AP-S Educational Resource Center [3-5].

Figure 1: 2022 IEEE AP-S Young Professional Ambassadors

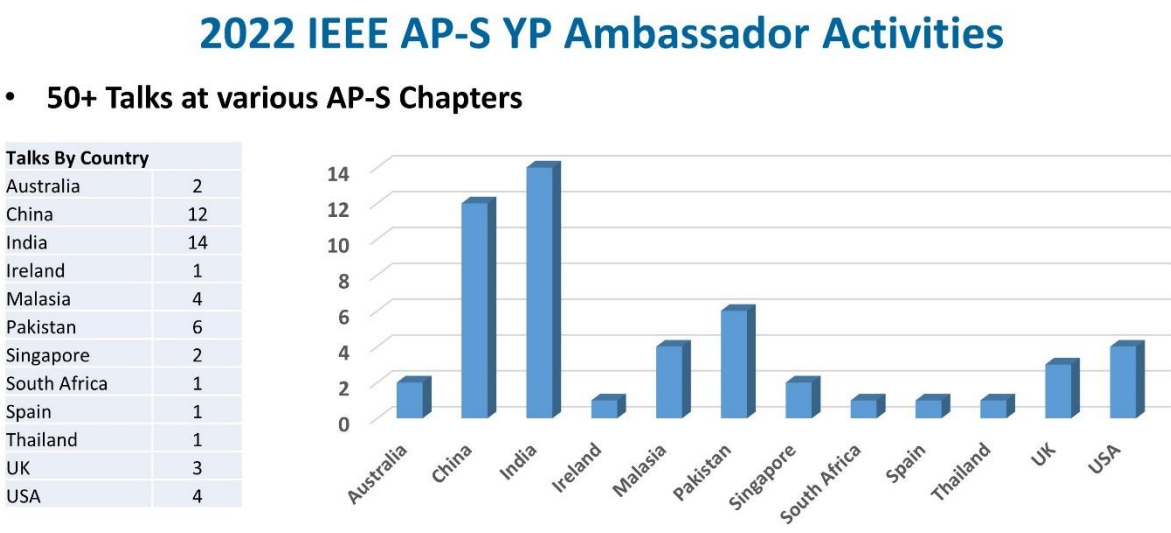


Figure 2: Distribution of talks given by 2022 AP-S YP Ambassadors across the world.

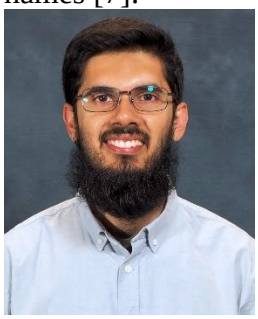
4. IEEE Antennas and Propagation Society Young Professional of the Year Award

IEEE Antennas and Propagation Society established a new award called, *"**IEEE Antennas and Propagation Society Young Professional of the Year Award***" to recognize one Young Professional (YP) member of the IEEE Antennas and Propagation Society for significant service to AP Society during the one-year term as IEEE AP-S Young Ambassador, which includes: (1) Number of Technical and Nontechnical Talks at IEEE Sections and AP-S Chapters as well as quality of the talks, visibility, and attendance at the talks and (2) Participation in other YP Activities including organization of YP events. This award carries a cash prize of US$2,000 and will be presented at the annual IEEE International Symposium on Antennas and Propagation. More details are at [6].

5. AP-S YP Ambassadors for 2023

We received in total 26 Nominations from more than 10 countries with candidates from both academia, government labs and industry. We selected top 10 candidates as 2023 AP-S YP

Ambassadors. These included Ambassadors from 7 countries, including Australia, China, Denmark, Ireland, South Korea, UK and USA, 3 women and 2 from the government labs. Below is the list of 10 selected AP-S YP Ambassadors for 2023 sorted according to their last names [7]:



Hasan Abbas
Lecturer
James Watt School of Engineering
University of Glasgow
United Kingdom
Email: Hasan.Abbas@glasgow.ac.uk
Web: https://www.gla.ac.uk/schools/engineering/staff/hasanabbas/
LinkedIn: https://www.linkedin.com/in/hasantahirabbas/

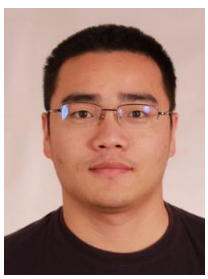
Talk 1: Electromagnetic Methods at the Nanoscale – Current State of the art
Talk 2: Application of nanoscale electromagnetics in biomedical applications

Gangil Byun
Associate Professor
Department of Electrical Engineering (EE)
Ulsan National Institute of Science and Technology (UNIST)
South Korea
Email: byun@unist.ac.kr
Web: http://byun.unist.ac.kr
LinkedIn: https://www.linkedin.com/in/kylebyun

Talk 1: Huygens' Metasurfaces for Wide-Angle Refraction: Theory, Design, Analysis, and Physical Implementation **Talk 2:** Recent Advances in Display-Integrated Millimeter Wave Antennas

Sumitra Dey
Hardware Development Engineer
Amazon Lab126
California, USA
Email: deysumiz@amazon.com
LinkedIn: https://www.linkedin.com/in/sumitradey

Talk 1: Relevance of Characteristic Mode Analysis in Plasmonic Material Based Nanoantenna Optimization
Talk 2: Multiscale Modelling of Carbon Nanotube Reinforced Nanocomposites: Opportunities and Challenges



Wei Fan
Associate professor
Head of "wireless propagation and over-the-air testing" research group
Department of Electronic Systems,
Aalborg University,
Denmark
Email: wfa@es.aau.dk
Web: https://vbn.aau.dk/en/persons/125814
LinkedIn: https://www.linkedin.com/in/weifan1987/

Talk 1: Radio Channel Sounding, Modelling and Emulation for 5G and Beyond Systems
Talk 2: Over-the-air testing (OTA) of 5G radios: Principles and Challenges

Gaurangi Gupta
Post-Doctoral Researcher
NASA Jet Propulsion Laboratory/Caltech
USA
Email: gaurangi.gupta@jpl.nasa.gov
LinkedIn: https://www.linkedin.com/in/gaurangigupta25/

Talk 1: Innovative Antenna Solutions for Satellite Telecom, Radio Telescope and Radars
Talk 2: Lunar Crater Radio Telescope on the Far-side of the Moon

Hui Li
Professor
School of Information and Communication Engineering
Dalian University of Technology
China
Email: hui.li@dlut.edu.cn
Web: http://faculty.dlut.edu.cn/huili/en/index.htm
LinkedIn: https://www.linkedin.com/in/hui-li-78ba95257/

Talk 1: Theory of Characteristic Mode and its Application in Antenna Design
Talk 2: Designing Multiple Antennas in Terminal Devices

Saptarshi Mukherjee
Research Scientist
Lawrence Livermore National Laboratory (LLNL)
USA
Email: mukherjee5@llnl.gov
Web: https://people.llnl.gov/mukherjee5
LinkedIn: https://www.linkedin.com/in/saptarshi-mukherjee-5a55bb7a/

Talk 1: Electromagnetic Diagnostics for In-situ Metal Additive Manufacturing
Talk 2: Electromagnetic Nondestructive Evaluation: Breaking the diffraction limits

Syed Akbar Raza Naqvi
Post-Doctoral Research Fellow,
School of Information Technology & Electrical Engineering
The University of Queensland
Australia
Email: s.naqvi@uq.edu.au
Web: https://researchers.uq.edu.au/researcher/33730
LinkedIn: https://www.linkedin.com/in/syed-akbar-raza-naqvi/

Talk 1: Dielectric Properties of Healthy Human Skin and Challenges towards Dermal Anomaly Detection using Electromagnetic Techniques
Talk 2: Skin Cancer Detection: Feasibility study across the Microwave Frequency band

Adam Narbudowicz
Senior Research Fellow
Trinity College Dublin, The University of Dublin
Ireland
Email: narbudoa@tcd.ie
Web: https://connectcentre.ie/people/Adam-Narbudowicz
LinkedIn: https://connectcentre.ie/people/Adam-Narbudowicz

Talk 1: Securing IoT: Antennas as Padlocks, Propagation as a Key
Talk 2: Machine learning + mm-Waves = biodiversity sensor

Chaoyun Song
Assistant Professor
School of Engineering and Physical Sciences
Heriot-Watt University
United Kingdom
Email: c.song@hw.ac.uk
Web: https://sites.google.com/view/chaoyunsong/home
LinkedIn: https://www.linkedin.com/in/chaoyun-song-b3925386/

Talk 1: "Magic" Antenna Engineering for Sustainable, Flexible and Stretchable Electronics
Talk 2: How to Address the Net Zero Target via Rectifying Antennas?

6. Call for Action

All AP-S chapter chairs are encouraged to contact IEEE AP-S YP ambassador directly for inviting them to deliver talk or speak on the event. Chapter chairs can also contact Qammer H. Abassi, subcommittee chair at: qammer.abbasi@glasgow.ac.uk.

7. AUTHOR INFORMATION

Qammer H. Abbasi (qammer.abbasi@glasgow.ac.uk) is a reader with the James Watt School of Engineering, as deputy head of the Communication Sensing and Imaging group and deputy theme lead, Quantum and Nanotechnology at the Advance Research Centre, both at the University of Glasgow, Glasgow, g41 3ty, U.K. He received the Sensor 2021 Young Scientist Award. He is a Senior Member of IEEE and subcommittee chair of the IEEE Young Professional Ambassador Program.

8. References:

[1] Q. H. Abbasi, "AP-S Young Professional Ambassador Program [Young Professionals]," in IEEE Antennas and Propagation Magazine, vol. 64, no. 2, pp. 79-105, April 2022, doi: 10.1109/MAP.2022.3145720.
[2] M. Khan, W. Lin and J. Quimby, "AP-S Young Professionals Activities at the 2022 IEEE International Symposium on Antennas and Propagation [Young Professionals]," in IEEE Antennas and Propagation Magazine, vol. 64, no. 6, pp. 108-111, Dec. 2022, doi: 10.1109/MAP.2022.3212269.
[3] Heinrich Edgar Arnold Laue, "IEEE AP-S Young Professional Ambassador Talk: From Old to New: How to Properly Apply Novel Ideas to a Conventional Research Domain—the Case of

Compressive Antenna Arrays," https://resourcecenter.ieeeaps.org/education/rf-and-microwave-systems/APSRFMIC0020.html
[4] Daniele Inserra, "IEEE AP-S Young Professional Ambassador Talk: Radiative Wireless Power Transfer with Microwave and mm-Wave: Is There Anything Concretely Possible With This Technology?," https://resourcecenter.ieeeaps.org/education/rf-and-microwave-systems/APSRFMIC0030.html
[5] M. Khan and W. Lin, "Interview with 2022 IEEE AP-S Distinguished Achievement Award Winner, Prof. Akhlesh Lakhtakia," https://resourcecenter.ieeeaps.org/professional-development/interviews/APSPDINT0000.html
[6] IEEE Antennas and Propagation Society Young Professional of the Year Award, https://ieeeaps.org/committees/ypa.
[7] 2023 IEEE AP-S YP Ambassadors, https://ieeeaps.org/committees/2023ypa