



Young Professionals

Report on YP Activities During MAPCON 2023

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The 2023 edition of the IEEE Microwave, Antennas, and Propagation Conference (MAPCON 2023), the joint flagship conference of the IEEE Antennas and Propagation Society and IEEE Microwave Theory and Technology Society, was held at The Forum Celebration Center and Wyndham Hotel in Ahmedabad, India, 11–14 December 2023. Nearly 800 delegates were present at the conference, which offered a session on Young Professional (YP) activities together with Women in Microwave (WiM). The joint event ran for nearly three hours on 13 December 2023, and was comprised of two distinct lectures, a competition, and a joint panel discussion with WiM (Figure 1).

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The first session consisted of two distinguished lectures and was moderated by Dr. Anamiya Bhattacharya and Mrs. Shruti Sinha from the Space Applications Center (SAC), Indian Space Research Organisation (ISRO). The first lecture was delivered by Mr. Gaurav Seth (Figure 2) on his startup journey. Gaurav is the CEO and cofounder of PierSight, an Indian space tech startup that focuses on developing specialized synthetic aperture radar systems for persistent Earth observation. PierSight recently completed its seed round of funding and was selected to participate in the prestigious Techstars Space Fall 2023 program, in collaboration with the National Aeronautics and Space Administration Jet Propulsion Laboratory and the U.S. Space Force. Additionally, PierSight has been recognized as one

of the top 30 tech startups in India by YourStory's Tech30 list.

The second lecture of the session was delivered by Dr. Vishal Chakradhary on his journey as a “Researchpreneur” in RF Nanocomposites Pvt. Ltd. (Figure 3). Dr. Vishal is an accomplished researcher, entrepreneur, and innovator with over nine years of research experience in the design and development of advanced electromagnetic interference (EMI) shielding and stealth nanocomposite materials. His expertise is in tailoring, optimizing, and manipulating the material's properties at nano levels to develop advanced EMI shielding and stealth materials as per user specifications. He is the CEO, founder, and director of RF Nanocomposites Pvt. Ltd., a leading startup focused on developing cutting-edge solutions in the areas of EMI shielding and stealth technology.

The session also ran a competition called “An Idea That Can Change the Future,” moderated by Dr. Zubair Akhter from Technology Innovation Institute (TII), Abu Dhabi. There were four shortlisted participants: Ms. Farheen Fatima from the Indian Institute of Technology (IIT) Kanpur, Mr. Dibyajyoti

Young Professional Talks

Researchpreneur

Speaker: Dr. Vishal Chakradhary, CEO, RF Nanocomposites Pvt. Ltd.

SPEAKER BIO: Vishal Chakradhary is an accomplished researcher, entrepreneur, and innovator with over 9 years of research experience in the design and development of advanced EMI shielding and stealth nanocomposite materials. His journey in the world of science and innovation began when he joined the prestigious IIT Kanpur to Pursue M. Tech. in the Materials Science discipline and continued his research journey and completed a Doctor of Philosophy (Ph.D.) from IIT Kanpur. His expertise is in tailoring, optimizing, and manipulating the material's properties at nano levels to develop advanced EMI shielding and stealth materials as per user specifications. He is the CEO, founder, and director of RF Nanocomposites Pvt Ltd, a leading start-up focused on developing cutting-edge solutions in the areas of EMI shielding and stealth technology.

Dr. Vishal Chakradhary

Entrepreneurship in Indian Space Tech : My Startup Story

Speaker: Gaurav Seth , CEO, Pier Sight

SPEAKER BIO: Gaurav graduated with a **B.Tech** in Engineering Physics from the Indian Institute of Space Science and Technology (IIST). He then worked at the Indian Space Research Organization (ISRO) for 9 years, where he played a critical role in the design and execution of various interplanetary and Earth observation missions. Currently, Gaurav is the CEO and cofounder of PierSight, an Indian space tech startup that focuses on developing specialized SAR systems for persistent Earth observation. PierSight recently completed its seed round of funding and was selected to participate in the prestigious Techstars Space Fall 2023 program, in collaboration with NASA JPL and the US Space Force. Additionally, PierSight has been recognized as one of the Top 30 tech startups in India by YourStory's Tech30 list.

Gaurav Seth

MODERATORS

Shrutika Sinha
SAC, ISRO

Anamiya Bhattacharya
SAC, ISRO

YP SESSION **Wednesday , 13 DEC'2023**

Figure 1. Flyer of the YP Talks in MAPCON 2023.



Figure 2. Lecture by Mr. Gaurav Seth, CEO, PierSight.



Figure 3. Lecture by Dr. Vishal Chakradhary, CEO, RF Nanocomposites Pvt. Ltd.

Mukherjee from IIT Delhi, Mrs. Surbhi Arora from IIT Bombay, and Dr. Gaurav Mittal from the Defense Electronics Application Laboratory, Defense Research and Development Organization, Dehradun. The participants spoke about three minutes each and all of the presentations were very interesting. The first prize was awarded to Mr. Dibyajyoti Mukherjee for his presentation “A Low Frequency Implantable Magnetolectric Antenna for Deep-Body Power and Data Transfer for Therapeutic Applications,” while Mrs. Surbhi Arora and Dr. Gaurav Mittal were awarded second and third prize, respectively, for their presentations on “Plastic Recycling Home Appliance Using Microwaves” and “Microwave Energy Harvesting.” All of the participants were presented with certificates of appreciation during the award ceremony (Figure 4).

The last part of the session was a panel discussion, held as a joint session with WiM (Figures 5 and 6). There were five panelists (two from the WiM and three from the YP communities): Dr Sulekha Chattopadhyay,



Figure 4. Certificate distributions among participants during award ceremony.

WHAT DOES THE FUTURE HOLD FOR MICROWAVE PROFESSIONALS?
 CHALLENGES AND OPPORTUNITIES

WIM PANELIST	YP PANELIST
 Dr. Sulekha Chattopadhyay Transportation Electrification and Air Quality Expert	 Dr. Jogesh Chandra Dash Assistant Professor, NIT Rourkela
 Dr. Debarati Ganguly Assistant Professor, IIIT Kottayam	 Dr. Abhishek Kumar Awasthi Dy. Manager, Paras Antidrone
 Dr. Shobha Sunder Ram Associate Professor, IIIT Delhi	<div style="background-color: #002060; color: white; padding: 5px; font-weight: bold; font-size: 1.1em;">MODERATORS</div> Dr. Somak Bhattacharyya Associate Professor, IIT (BHU), Varanasi

WIM/YP JOINT PANEL SESSION

Wednesday , 13 DEC'2023

Figure 5. Flyer of the panel discussion in MAPCON 2023.

Dr Debarati Ganguly from IIIT Kottayam, Dr. Jogesh Chandra Das from the National Institute of Technology Rourkela, Dr. Abhishek Kumar Awasthi from Paras Antidrone, and Dr. Zubair Akhtar from TII, Abu Dhabi. The session was jointly moderated by Dr. Shobha Sunder Ram from IIIT Delhi and Dr Somak Bhattacharyya from IIT (BHU), Varanasi.



Figure 6. A glimpse of the panel discussion during MAPCON 2023.



Figure 7. At the end of the panel discussion during MAPCON 2023.

There was an interesting discussion on “What Does the Future Hold for Microwave Professionals? Challenges

and Opportunities” for nearly 30 min, where the experts provided a wonderful roadmap to the young aspirants in

this field. The session ended up with a photo session with the dignitaries present in the hall (Figure 7).

MTT-S Society News (continued from page 98)

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