

Manifestation
of
IEEE Uttar Pradesh Section Young
Professional Star Award for the Month
of July 2021



Dr. Girish Chandra Tripathi has been selected IEEE Uttar Pradesh Section Young Professional Star Award for the month of July 2021.

We congratulate Dr. Girish Chandra Tripathi for the achievement. His perception about the IEEE, society and young professionals are reflected in this discussion. Here are the excerpts of the interview with G. C. Tripathi made by Varun Kumar Kakar, IEEE UP Section Young Professionals Committee Chair.

About Dr. Girish Chandra Tripathi

Dr. Girish Chandra Tripathi received the B.Tech. Degree in Electronics and Communication Engineering from Dr. A.P.J. Abdul Kalam Technical University (UPTU), in 2011, M.Tech, and a Ph.D. degree in electronics and communication engineering from Indian Institute of Technology Roorkee, Utrakhand, India in 2016 and February 2021, respectively.

From 2011 to 2014, he was a lecturer in the Department of ECE, BSA College of Engineering and Technology Mathura. Moreover, he worked on research projects sponsored by different

government organizations as “Hybrid (RF/Digital) Pre-Distortion Linearizer Design for 13.75-14.5 GHz High Power Travelling Wave Tube Amplifier” sponsored by DRDO and other companies during his research at IIT Roorkee. During his Ph.D., he worked as a Teaching Assistant for the NPTEL online certification course on “Basics of software-defined Radios and Practical Applications” for three consecutive years 2018,2019, 2020. He also worked as a teaching assistant for a training program on "Linearized Power Amplifier" in Bharat Electronics Limited, Bangalore, and GIAN Course “Signal Processing Techniques for Energy and Spectrum Efficient Wireless Transmitters for 4G/5G Communication. He was instructor and Coordinator for the training Program on “Basics of Software Defined Radio Architectures and Building blocks of SDR waveform development for SDR “in Bharat Electronics Limited, Bangalore, in 2019, 2020, 2021.

Having focused on product development, he co-founded a company where his research has been extensively utilized to support Power Amplifier Linearization (Digital Predistortion and Analog Predistortion) and Harmonic cancellation for 4G and 5G communication. He is also developing Software-Defined Radios for clients and identifying new products, including collaboration with different stakeholders

He has published more than twenty-three journal/conference papers of repute and applied for two Indian patents

that are under examination. He received the Excellence in Doctoral Research Award for outstanding Ph.D. work (SOFTWARE-DEFINED-SOLUTIONS FOR NONLINEARITIES IN SUB 6 GHZ TO mmWAVE TRANSMITTERS) from the Indian Institute of Technology, Roorkee, India, at Convocation 2021. He also received Young Scientist Award in the 12th Uttarakhand State Science and Technology Congress, IASC-INSA-NASI Summer Research Fellowship-2014, best student paper award in UPCON-2019, and IIT Roorkee Alumni fund Grant to attend the APMC-2019 conference in Singapore

His current research interest is in software-defined radio, linearization of RF-power amplifiers for 4G/5G Communication, and Electronic warfare systems design.

1. What are your words of motivation?

If we have the right skills and patience, we can achieve whatever we want.

2. What was the specific reason, if any, which made you, join IEEE?

I initially joined the IEEE to get a discount on the conference paper registration during my Master's, but later on, I realized the potential of IEEE membership, including its global reach and networking; hence I have been an IEEE member for the past eight years.

3. As a Young Professional, how do you position your interest in your own field with the activities and services you

perform as an IEEE member/volunteer?

As an IEEE member, I participated in conferences and workshops sponsored by IEEE as a volunteer. I was the secretary of IEEE Communication society IIT Roorkee during my student life. Since the field of engineering is rapidly changing, we have to adapt quickly, where IEEE plays a crucial role.

4. What are your thoughts about IEEE membership and its paybacks? Whether the IEEE membership benefited you at any time in your career growth? If so, how?

The IEEE membership provides me benefits in my early career to reduce registration rate in workshops and conferences. Moreover, it was also helpful in providing travel support in conferences and applying student projects. IEEE has a vast database that supported me in my research career.

5. As a Young Professional, what are the changes or developments you would like to see in evolving this professional body as a group devoted to humanity and its causes?

I have seen that there has been significant growth in the IEEE UP section over the past few years. In my opinion, more workshops on emerging technologies like AI/ML, BlockChain, Open RAN, Industry 4.0, etc., can be conducted by practicing Young professionals to budding Young

professionals to succeed in their industrial journey.

6. What are your suggestions and recommendations for those young professionals who may aspire to join IEEE?

I recommend joining IEEE as early as possible because it will provide ample networking opportunities with fellow members and senior member's support. Moreover, you will be get updated in your research area by connecting with relevant persons.

7. As a Young Professional and a young researcher in the field, how do you consider the prospects of scientific research in this field for the benefit of humanity?

Scientific research is a vital tool for solving our complex real-world problems, and these problems may not be limited to a particular research area. Hence to solve such problems, collaboration is required between different stakeholders. As we have seen in the case of COVID, researchers from several fields have collaborated to provide masks, ventilators, and testing kits, etc.

8. What is your recent exciting research works that may have significant societal impact?

I am working in the 5G and instrumentation domain. I recently developed a system to upgrade a sub 6 GHz vector signal generator to a mmWave

vector generator with reduced cost and good accuracy. This will help the academics and MSME industries since they can not afford the higher cost of measurement.

9. What's the advice you would give to a young professional who is just starting his/ her career?

I want to suggest that young professionals bring a product mindset while starting their work because it will help in product creation and value addition to the society. Nowadays the government is also supportive of indigenous products; hence it is the right time to start and accomplish your goal.

10. Anything else that you would like to add?

I am thankful to the IEEE UP Section and all office bearers to recognize me for the IEEE UP Section Young Professional Star of the Month (July 2021).