

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



Dr. Rajeev Kumar Chauhan has been selected IEEE Uttar Pradesh Section Young Professional Star for the month of September 2021.

We congratulate Dr. Rajeev Kumar Chauhan, DEI, Agra UP 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 Rajeev Kumar Chauhan made by Kamlesh Singh, IEEE UP Section Young Professionals Committee member.

**About Yourself**

Dr. Rajeev Kumar Chauhan (M'10-SM'15) graduated in Electrical Engineering from The Institutions of Engineers (India). He received his M. Tech degree in Control and Instrumentation Engineering from Dr. B. R. Ambedkar National Institute of Technology Jalandhar, India and PhD from School of Computing and Electrical Engineering at Indian Institute of Technology Mandi, India. Presently he is working as Assistant Professor with the Department of Electrical Engineering, Dayalbagh

Educational Institute (Deemed University), Agra, India. Dr. Chauhan received dozen award and fellowships such as POSOCO Power system Award (PPSA-2017) and Best Ph.D. Thesis Award to recognize and reward innovative technical research excellence in power system. He has also received 2<sup>nd</sup> prize (Category Energy) in IEEE IAS CMD Humanitarian project contest 2017 for his project DC Micro-grid for Residential Buildings. He also received Bhaskara Advanced Solar Energy (BASE-2014) Award, for his research proposal in the area of DC microgrid from Department of Science and Technology, Indo-US Science and Technology Forum, and Government of India. He is a lecture of IAS Young Professional and CMD Alumni. Dr. Chauhan is a Counselor for IEEE student branch and Advisor for WIE affinity group and IAS Student Chapter at Dayalbagh Educational Institute (Deemed to be University), Agra, India. He is also a Member of Project Panel at The Institution of Engineers (India), Kolkata. He is also an expert to evaluate project proposals in Electrical Engineering at Marwadi University, Rajkot, Gujrat. Dr. Chauhan has worked as an Assistant Professor (Senior Grade) at the Galgotias College of Engineering and Technology Greater Noida, India (July 2017-December 2019). Dr. Chauhan has worked as a Research Scientist (Dec 2018-April 2019) in the school of Electrical and Electronic Engineering, University of Manchester, UK. He has also worked as Visiting Scientist (July 2014-October 2014) in the

Center for Electromechanics at the University of Texas at Austin, USA. He was with Department of Electrical and Electronics Engineering at Roorkee Institute of Technology Roorkee as Assistant Professor (2011-12). He has also worked as Senior Lecturer with Department of Control and Instrumentation Engineering, Galgotias College of Engineering and Technology Greater Noida (2010-11) and as a Lecturer with Department of Electrical and Electronics engineering at Krishna Engineering College Ghaziabad (2009-10). He has been Editor of 3 books (01 IET, 02 Elsevier) and author of 14 book chapters. Moreover, He has been authoring of 50 plus research papers including 18 publications in international journals, 21 publications in conference proceedings. He has been filled and published 04 patents in India. He has 2 sponsored projects of grant more than 1.3 million rupees. While he has completed two consultancy project “investigation of 132 KV GIS Sub-station Fatehpur Sikri” and “Inspection of 132 KV GIS Bay and 132 KV transmission line Achhnera” for Uttar Pradesh Power Transmission Corporation Limited (UPPTCL) in 2020 and 2021 respectively. He also is handling consultancy project investigation of 132 KV GIS Sub-Station Bay and 132 KV Transmissions project for the UPPTCL. He has a project funding of one million rupees from Government of India for his project Smart Energy Management System for Solar-Hydro-Battery based Microgrid to Empower

Future Low-Carbon Indian Society. He has also received the institute funding for his project Real Time Battery Monitoring System. He has developed a Video lecture series on Digital Logic Design under MOOCS Initiative of the Dr. A.P.J. Abdul Kalam Technical University (AKTU), Lucknow.

His research interests include DC micro-grid and grid integration of renewable energy sources, Electric vehicles and charging stations, SCADA System, Industrial Automation and Control, Smart Grid. He is a senior member of Institute of Electrical and Electronics Engineers (IEEE), Member of The Institution of Engineers (India), International Association of Engineers (IAENG) Hong Kong, International Association of Computer Science and Information Technology (ICASIT) Singapore, Institute of Doctors Engineers and Scientists (IDES). He is an Editor of Electronics Science Technology and Application, *Member of Scientific Committee*, International Engineering and Natural Science Conference (IENSC2018) held on November 14-17, 2018 in Diyarbakir, Turkey. *TPC Member*, The International Conference on Energy Engineering and Environmental Protection (EEEP2017) held on December 15th-17th, 2017 in Guangzhou, China. *TPC Member*, the 3rd International Conference on Advances in Energy Resources and Environment Engineering (ICAEESE 2017) held on December 8-10, 2017 in Harbin, China. He has served as Jury

Member in Internal Smart India Hackathon held in IET Agra and DEI Agra. He is a Reviewer for the reputed journal societies like IEEE, Elsevier and Springer.

### **1. What are your words of motivation?**

My childhood is from a rural area, which is far from the school and colleges. It was taking hours to reach my school. Limited access of electricity and other essential facilities were the main issue at that time. As per my believe, do not see the easy approaching facilities around you but see the opportunities through which you can achieve your target.

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

I have joined my first IEEE membership during my PhD at IIT Mandi. There was already an IEEE student branch. I was motivated by the activities going on there. I realise if I need to explore and maintain consistency in my area of research than IEEE will help me a lot. So from that day I was involved with IEEE.

### **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 a Young Professional, I am able to increase my professional network with technical activities through IEEE as IEEE member/volunteer, experiencing novel activities also. I have also joined other IEEE societies. Currently working as IEEE

student branch counsellor, an advisor of IAS chapter and WiE Affinity Group at Dayalbagh Educational Institute Agra. As an IEEE member I am serving as the reviewer of some of the IEEE journals.

I am also serving as Technical Speaker for IAS CMD Alumni.

### **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?**

As per my thoughts, IEEE membership creates a silver path for technical persons to enter in the professional network practically. Its paybacks are in the form of involvement in various activities, awareness about recent technologies, approaching platform to the experienced professionals and in the form of various awards for encouragement. I have got master's and PhD Student Support Grant, IEEE PES ISGT Asia 2015 and AMTGP Travel Award, To attend the IEEE IAS Annual Meeting 2017. I have got 2<sup>nd</sup> prize (Category Energy) in IEEE IAS CMD Humanitarian project contest 2017 for my project DC Micro-grid for Residential Buildings. I have also received Best Ph.D. Thesis Award in IEEE UPCON-2017. My students' team won the First Prize for "Design of Droop Control Based Real-Time Battery Management System for Automated DC Microgrid," in IEEE IAS CMD Myron Zucker Undergraduate Student Design Contest

2019, Baltimore, Maryland, United States. My one student also received 2<sup>nd</sup> prize for his project Idea “Self Sustainable Green House” in Green Cover Competition organized by IEEE Student Branch at Central University of Haryana, Mahendargarh held on 5th September 2021.

**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 would like that there should be awareness about getting opportunities to organise the IEEE conferences. Some good standing branches and institutes are not getting opportunities to organise the reputed IEEE conferences. Also, there should be combined strength in IEEE branches in India to receive maximum IEEE awards and grants.

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

My suggestions and recommendations for young professionals who may aspire to join the IEEE are not to just take the membership as a membership tag. But take it as an advantage of involving in the professional world and activities. Take it as an opportunity to explore your ideas globally and to shape your doings in a directed way.

**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?**

In India students having capability to do the experiments which are useful, but they generally have no directions and rewards of doing so. Such societies increase their confidence of doing things. There are lots of opportunities in our India which young mind can observe and can implement them for the facility of the humanity.

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

My work is on the multiterminal DC microgrid for rural area. This system opens the integration opportunities for renewable energy resources and electrical vehicles at power distribution in rural areas and urban. Moreover, the output of the work is in the form of the un-interrupted power supply at low cost and high efficiency.

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

As an IEEE young professional my suggestions to the early career young professionals is to get involved with the IEEE and start it by taking the IEEE membership. Explore the benefits of this by attending the awareness events of IEEE.

**10. Anything else that you would like to add?**

I would like to say thanks to IEEE UP section to offering such IEEE awards. These awards encourage the professionals to do more work for the society.