

IEEE MICROWAVE THEORY AND TECHNOLOGY SOCIETY
Election of Members-at-Large to the Administrative Committee
For a Three-Year Term 1 January 2024 – 31 December 2026

SLATE 1
Regions 1 - 7



ZHIZHANG DAVID CHEN (M'92-SM'96-F'10) is a professor and a former Electrical and Computer Engineering Department Head at Dalhousie University, Halifax, Canada. He earned his B. Eng. and Master's degrees in Radio Engineering from Fuzhou University and Southeast University, China, respectively. He furthered his studies and obtained a Ph.D. degree in Electrical Engineering from the University of Ottawa, Canada. He has held visiting positions at renowned academic and industrial organizations across Europe and Asia. Notably, he was selected as a Royal Society visiting faculty at the University of Nottingham, served as an NSERC post-doctoral fellow at McGill University, and held visiting faculty positions in China.

Dr. Chen's research focuses on computational electromagnetics, RF/microwave electronics, and wireless technologies. He was honored with the 2005 Nova Scotia Engineering Award, the 2013 IEEE Canada Fessenden Medal, and the Dalhousie Distinguished Research Professorship. He is the Fellow of the IEEE and the Canadian Academy of Engineering.

IEEE ACTIVITIES:

2000-2023 **Vice Chair, Wireless Power Transfer and Energy Conversion (TC-25), IEEE Microwave Theory and Techniques Society (MTT-S).**
2021-2022 **Chair, Field Theory and Computational Electromagnetics (TC-1), IEEE MTT-S.**
2020-2022 **Ad-Com Member, IEEE Antennas and Propagation Society.**
2019-2022 **Member, IEEE Fellow Evaluating Committee, IEEE MTT-S.**
2019-2020 **Chair, Wireless Communications Committee (TC-23), IEEE MTT-S.**
2018-2020 **Chair, Membership Committee, IEEE Antennas and Propagation Society.**
2017-2020 **Member, Inter-Society Committee, IEEE MTT-S.**
2009-2011 **Founding Chair of the Chapter** of IEEE Signal Processing/Microwave Theory & Techniques, Canadian Atlantic Section.
2000-2001 **Chair** of IEEE Canada Atlantic Section and a member of the Board of Directors for IEEE Canada.
1994-1997 **IEEE Student Counselor.**
2020- **Topic Editor**, Founding Editorial Board, IEEE Journal of Microwaves (Open Access).
2019-2022 **Track Editor**, IEEE Transactions on Microwave Theory and Techniques (T-MTT).
2016-2019 **Associate Editor**, IEEE Journal on Multiscale and Multiphysics Computational Techniques.
2018-2019 **Guest Editor**, Special Issue for 2018 IEEE Wireless Power Transfer Conference, IEEE T-MTT.
2018-2019 **Guest Editor**, Special Issue for 2018 IEEE International Wireless Symposium, IEEE T-MTT.
2015-2017 **Guest Editor**, Special Issues for the 2015 and 2016 IEEE Numerical Electromagnetic Modeling and Optimization (NEMO), IEEE T-MTT.
1996- **Conference Chair, Technical Program Committee Chair, or Member** of IEEE conferences every year.

QUALIFICATIONS:

- Prof. Chen has been a **dedicated member of the MTT-S community since 1991** and has a deep understanding of MTT-S' operations and functions across different levels.
- With a **research career spanning over three decades** since 1990, Prof. Chen possesses a wealth of knowledge and experience in electromagnetics, RF/microwaves, and wireless technologies. His proficiency in these areas enables him to contribute valuable insights to the field.
- Prof. Chen has demonstrated **strong leadership skills through his diverse roles, including technical, organizational, and university administrative positions.** These experiences have honed his ability to navigate complex environments and achieve effective results.

MAJOR ACCOMPLISHMENTS:

- During the pandemic years, as **Chair of MTT-S TC-1** (Field Theory and Computational EM), Prof. Chen played a crucial role in keeping the committee active and successfully introducing two DMLs in the area.
- As **Chair of MTT-S TC-23** (Wireless Communications), Prof. Chen ensured a highly active committee. Annual activities included two workshops, a student radio-sensing design competition, and topical workshops on 5G/6G and AI.
- As **Chair of the AP-S Membership and Benefits Committee** (2019-2021), Prof. Chen helped revitalize the committee and initiated various promotional activities. They included industry lecture series, programs for students and high-school students at symposia, and other society promotions.
- Prof. Chen's **expertise in computational electromagnetics and wireless power has earned him recognition**, with invitations to join **the editorial boards** of newly established journals (JMW and JMMCT) and the T-MTT as an editor.
- Prof. Chen has consistently participated in **organizing a few MTT-S-sponsored conferences** every year since 1996.

Statement: Microwave theories and technologies are increasingly essential in our interconnected society. To maximize their potential, collaboration with electronics, material sciences, and computer sciences is crucial. If elected, I will prioritize:

- **Advancing interdisciplinary collaboration:** Foster cross-disciplinary partnerships to fuel innovation in microwave theory and technologies. Actively advocate for emerging research in AI, quantum communications, and sensing, reinforcing MTT-S's position as a frontrunner in these areas.

- **Promoting educational initiatives:** Champion impactful programs that engage and inspire MTT-S members, shaping the future through new branding and educational opportunities.
- **Empowering early-stage researchers and engineers:** Support their growth, encourage participation, and amplify contributions within the MTT-S community.
- **Enhancing recognition and awards:** Establish additional awards, recognize outstanding achievements, and create an inclusive professional environment for all members.

By focusing on these priorities, I aim to strengthen the MTT-S community, foster collaboration, and **establish microwave theory and technologies as indispensable pillars of our rapidly evolving society.**



UPKAR J. S. DHALIWAL (S'89-M'90-SM'98) A Parallel Entrepreneur, Wireless Technology Mobility subject matter expert, with hands on wireless and internet experience undertaking Application, Intellectual Property, Business Development, Technical advisor support on Wireless Technologies and its product development for startups, OEMs, private equity and with most of Market Leaders.

A Professional Chartered Engineer, Engineering Council UK, Wireless & RF System Architect Executive serving on numerous industrial/technical/policy bodies with US National Policy influences and technical societies with specialized knowledge, technical leadership for many Start up and investment community.

For past 40 years done many World Class Firsts at QUALCOMM thru 3G /4G, STMicroelectronics JV NOKIA Mobile, SAMSUNG Telecom for early 2G – GSM, earlier years in Space & Defense.

At present, Charting 4G, 5G towards 6G in terms of Cognitive Radios, Distributed Mesh Radios and beyond LTE-Advance into 6G, CEO Future Wireless Technologies, Biz Dev: Cognition Systems, Phluido, AgShift, Big Data Federation and Technology & Strategy Assured Wireless.

IEEE ACTIVITIES:

COMMITTEES/BOARDS/REGIONS (IEEE major units):

- Member: IEEE Awards Board, Presentation and Publicity Committee 2021-22
- Member: IEEE Future Directions Committee: Connecting the Unconnected Challenge Prize, Summit Sponsorship Co-Chair
- Member: Region 6 Steering Committee, 2018-21
- Rep R6 Employment and Career Services Committee ECSC, 2015-21
- Member, USA Government Relations Council GRC R6 MAL, USA Committee on Communications Policy CCP, 2014-21
- Member, USA Artificial Intelligence & Autonomous Systems Policy Committee (AI&ASPC) 2019-21
- Member TAB Technical Activities Board Management Committee SmartAg Tech Adhoc
- Employment and Career Services Committee ECSC
- Member: IEEE IOT Journal, Executive Steering Committee 2017-19
- Sponsor/Founding Member R6 Southern California Council, Mentor: Student Branches IEEE United R6

SECTIONS/CHAPTERS:

- MAL San Diego Section EXCOM, Membership, Industry Relations Development 21
- Section Chair: San Diego Section 2015-16, Vice Section Chair Publicity: 2013-18
- Chapter Chair: San Diego Chapter AP/ED/MTT/SSC Solid State Circuits 2004-11
- Chapter Chair: San Diego Chapter AP/ED/MTT/SSC Solid State Circuits 2004-11, Advisor 12-21
- Vice Chair: San Diego COM-S, Chapter 2021
- Chapter Chair: San Diego EMB-S 2011-19

STUDENT BRANCHES:

Leeds University 1981-84

SOCIETY/SOCIETIES:

- Chair: MTT-20 Wireless Communications Technical Committee
- TPC Review Member IEEE MTT and RWS ongoing 10+ years
- Panel, Workshop, Rump Chair for many IMS and RWS conferences, Active for 10+ years
- MTT-S Speaker Bureau MTT-23 Wireless Communication
- Member MTT-S EIC Electronic Information Committee, LinkedIn Group Lead Manager
- Rep: COM-SOC North America Board R6
- Chair Finance: IEEE PAWS Power Amplifier Symposium, San Diego UCSD 10+ years

CONFERENCES:

- 5G World Forum Steering Committee 2018-21 Sponsorship Co-Chair, Industrial Vertical Forum/ Topical Track Chair 2018-20
- Member: ICUWB Executive Steering Committee 2008-14, MTT-S Rep
- Member: TTM Technology Time Machine – Future Directions Conference 2016, 18
- Co-Chair Globecom 2015 Steering Committee, Exhibit & Industry Forum
- 5G Summit General Chair, San Diego, July 2019, 21
- San Diego Blockchain Summit, General Chair 2018

- USA Smart Tech Summit, General Chair, 2017
- IMS2010 Conference Finance Chair
- RWS2006 Inaugural Finance Chair
- Keynote Plenary Speaker WAMICOM 2010 Melbourne and 2014, Tampa
- Keynote Plenary Speaker ICCE 19 Las Vegas
- Invited Speaker IEEE MTT-S Hawaii IEEE DL Seminars 2017

OTHER:

802 Working Group Voting Member, 2010-15

QUALIFICATIONS:

Fortunate to have deep roots in RF, Microwave, Wireless Technologies starting out from Leeds University, having great leaders and mentors over the years that have helped shape my career and contributions, I have been actively volunteering, mentoring and leading change both in Chapters, Sections, Societies, the IEEE and wider in US/UK National Policy. I have hands on contributions from semiconductor materials, device technologies, components, systems to the most complex networks apply first RF and now more increasing software, I cross my knowledge of Maxwell Equations at low frequencies into open source software to applying such solutions to even higher applications for Tetra-Hertz multi-modal sensing.

MAJOR ACCOMPLISHMENTS:

Vitalized San Diego Joint Chapter, Expanded with CAS, mentoring new leaders to Section and Chapter, Chapter most recognized for active online talks even before 2020, Vitalized other Chapters including EMB-S and Computer with new IEEE leaders to be more active at Section/Chapter level. Formed new SIG groups at the Chapter level, Sponsored new OU – Southern California Council, prior entity was stale and Stagnant, Expanding before MTT-S to increase inter-societal collaboration operating units by sharing my industrial, Standards, policy with acute business insights to establish new initiatives MGA at Section, Region and Institute levels, Supporting and leading the 5G – Future Networks Initiatives from it early formation, actively involved in the Flagship Annual 5GWF World Forum plus the regional local 5G Summit, Just launched Connecting the Unconnected Challenge Prize.

Statement: EIC, Conference & Symposia, TCC, Chapter, Future Directions, Inter-Societal and beyond IEEE Technical collaboration

With my early adoption of emerging technologies in businesses, I have volunteered my time and effort to bring new insights to the Society’s use of Electronic Media like LinkedIn, Facebook Live and online Webinars now so important in a Post Corvid Era. Such Virtual and Hybrid participations need to be increased and adopted, whilst maintaining in person events, Embracing my extensive experience on Summit, Conferences, and Symposia in person to transfer the Society’s ability to keep relevant using better Industry increasing use of AI/ML to solve tough problems, I am an early sponsor of millimeter wave Coalition, active as we move to higher frequencies and beyond participation of folks beyond IEEE.

I wish to continue to my drive of 5G, FNI and new Adhoc, with continuing my mentoring of Student branches, Young Professionals.

With my experience of other society involvement in North America Board and USA Committees, The Society needs to transform at a much rapidly to a Global and Regional Projects I have in mind.



PATRICK HINDLE (M’12-SM’15) As Media Director at Horizon House Publications, Pat Hindle is responsible for setting editorial direction and developing marketing opportunities for clients of Microwave Journal and Signal Integrity Journal. He is host of the video series Frequency Matters and the podcast series RF Industry Icons. Previously, he was Marketing Communications Manager at MACOM where he led programs for both the commercial and defense groups. Before that he worked as a Program Manager and Quality Engineer at MIT in the Space Microstructures laboratory, Product Line Manager at Alpha Industries (now Skyworks) and Research Staff Member at Raytheon Research Division. He is active on social media with close to 11,000 followers on LinkedIn and owner of the largest RF and Microwave Group on LinkedIn with about 62,000 members.

IEEE ACTIVITIES:

COMMITTEES/BOARDS/REGIONS (IEEE major units): Pat Hindle has just been nominated to serve on the IEEE SIGHT (Special Interest Group on Humanitarian Technology) and IEEE HAC (Humanitarian Activity Committee).

SECTIONS/CHAPTERS: Member of the New England Chapter of MTT-S

CONFERENCES: Pat Hindle served on the 2009 and 2019 IEEE MTT-S IMS Committees for Boston. In 2009, he helped with print on demand and session management. In 2019, he helped with marketing activities. He also organized the IMS 2020 Industry Workshops for the virtual event and several MicroApps panel sessions over the years.

QUALIFICATIONS:

Pat Hindle has more than 35 years’ experience in the RF and microwave industry in various positions ranging from research to product and quality management to marketing communications and publishing. He understands the industry on both the technical side and business side plus always up to date on the latest technology and trends as Media Director of Microwave Journal and Signal Integrity Journal. He attends many trade shows around the world so familiar with their operations and attending organizations. He has also been the technical program director for EDICON China so is familiar with various microwave technologies from an Asian perspective and organizes the industry sessions at the EuMW Defense, Space and Security Forum so familiar with both commercial and defense applications.

MAJOR ACCOMPLISHMENTS:

Pat Hindle has published many articles over the years and run technical conferences for Horizon House Publications including the Industry Sessions at the 2020 IMS virtual event. At Microwave Journal he has produced/hosted more than 225 episodes of the video series Frequency Matters and created/hosted more than 200 podcasts. He created and currently manages the largest RF group on LinkedIn with close to 62,000 members and has close to 10,000 followers. He organizes panel sessions at IMS and EuMW, organizes the industry sessions at the EuMW Defense Forum and microwave technical tracks for EDI CON Online.

He setup and executed the Industry Workshops for the IMS 2020 virtual event. He is also a Senior Member in the IEEE.

Major contribution(s) brought to IEEE in previous assignments or in my profession.

- Helped with first print on demand effort at IMS 2009 and did the session management
- Created a unique marketing program for IMS2019 by arranging Free Ubers to the convention center (sponsored by MACOM)
- Organized part of the first ever virtual component of IMS doing the industry workshops
- Organized many featured panel sessions for MicroApps and EuMW Defense, Space and Security Forum

Statement: I would like to strengthen the IEEE MTT-S humanitarian and educational activities with more local participation that can be scaled across the globe. As the main mission for the IEEE, increasing the efforts in this area would help the organization meet its mission and maximize contributions to society including STEM activities at an early age to continue to meet the demand for more engineers. Companies are struggling to hire qualified engineers so there is a strong need to attract more young people to the industry.

SLATE 2 **Regions 8 and 10**



MALGORZATA CELUCH (M'98) Dr. Malgorzata Celuch is QWED co-founder (1997), President, and Senior Scientist, lead co-author of QuickWave™ simulation software. Her Computational Electromagnetics research dates back to Ph.D. (1996, honours) at the Warsaw University of Technology, where she was holding academic positions until 2017. She is author of 170+ scientific peer-reviewed papers and 6 monograph chapters (h-index 16, 960 citations), and recipient of 10+ awards for excellence. Her research results are implemented in the products and services provided commercially by QWED.

She leads R&D projects, industrial and co-funded under the European Horizon Frameworks, exploring the synergies between computational modeling and materials' characterization, with specific interest for 5G/mmWave frequencies, energy materials, and automotive applications. Besides IEEE, she contributes to other professional organisations (European Material Modelling Council -co-chair of Model Development Focus Area; EMCC, AMI2030, EuMA, AcerS, iNEMI). She serves (since 2024) as an expert and evaluator for the European Commission research and innovation programmes.

IEEE ACTIVITIES:

COMMITTEES/BOARDS/REGIONS (IEEE major units):

Member:

- MTT-S TC 1 Field Theory and Computational EM Committee (formerly MTT-15) - since 2019
- Publications Committee - since 2023

SECTIONS/CHAPTERS:

- IEEE Poland Section AES/AP/MTT Joint Chapter - Vice-Chair for MTT - 2007-2009
- IEEE Poland Section Women in Engineering AG - 2020-2022

SOCIETY/SOCIETIES:

- Member of MTT-S, AP-S, I&M-S

CONFERENCES:

IMS TPRC member since 2003

- Founder (2010) and co-chair of SC-33 High Power Microwave Industrial Application (later merged with BioMedical),
- Organizer of IMS 2009 Workshop RAMPAnT - Best Workshop Award,
- Co-organizer of other IMS workshops (e.g. 2023: WMG, WMH),
- Exhibitor (QWED) since 1998, MicroApps; organizer of Industry Workshop IWTH3 2022,
- Co-founder of SC "Microwave Field-Matter Interaction: from Material Sensing to High-Power Applications" for IMS2024

Other:

- IEEE NEMO - session organizer and chair (2022, 2023),
- IEEE RWW - invited speaker - Distinguished Woman in Microwave 2023,
- MIKON - MRW: Member of TPC (since 2020), session chair and organizer since early 2000s (WiE 2020, 2022),
- Ukrainian Microwave Week 2022 - Member of TPC, plenary speaker, WiE session organizer and chair

OTHER:

- JMMCT: Associate Editor since 2020, Guest Co-Editor “Women in Computational Physics” 2022
- Reviewer for Transactions (MTT, AP, IM, CPMT), Letters (MWCL), AP Magazine - since the 1990s

QUALIFICATIONS:

I consider myself a good candidate due to:

- My technical qualifications, validated in both academic (Warsaw Univ. Tech.) and industrial (QWED) environments,
- My executive skills which have brought QWED from a 4-person partnership to a high-tech SME successfully competing with corporations of 10000+ (on selected markets of microwave material measurements and computer simulations),
- My interpersonal skills, acquired from my Parents and enhanced by multicultural experiences at the United World College of the Atlantic, which guide me in community building and conflict resolution,
- My enjoyment of life - of successes as well as challenges and plans.

MAJOR ACCOMPLISHMENTS:

I contributed to IEEE:

1. **Microwave Theory** by developing the theory of numerical eigenmodes and electromagnetic modeling algorithms, presented in IEEE media, awarded e.g. by Prime Minister of Poland;
2. **Microwave Technologies** by implementing my research results in:
 - QuickWave software, used in microwave designs from ALMA radiotelescope (by NRAO) to microwave ovens (by leading manufacturers), awarded with e.g. European Information Technology Prize;
 - GHz imaging setups for energy materials, recognized as European Horizon Innovation Radar (Finalist of 2021 IR Prize);
3. **Innovation through Collaboration** strategic goals, by exploring synergies with materials’ communities, from the IMS 2009 Workshop (Best Workshop Award) to new SC for IMS 2024 (aimed growth of submissions and registrations);
4. **Community Building** by my Women in Engineering activities since 2000, recently organizing Women in Microwaves events at MRW-MIKON (Poland, 2020, 2022) and Ukrainian Microwave Week 2022 - reported in Microwave Magazine (July 2021, 2023) and EMC Magazine (Dec.2022).

Statement: While no other technology association matches the IEEE’s resources, I believe that further **diversity** is required for **sustainable** innovation and excellence, in accordance with the IEEE mission.

I also believe that the specific MTT-S mission to continue to both influence and understand the microwave technologies requires collaborations with innovators also beyond IEEE.

Last but not least, I believe in horizontal activities as enablers for MTT-S members to grow professionally, and for MTT-S to grow its membership.

It is therefore around **sustainability, diversity, and inclusiveness** that I am planning to focus my actions including:

1. Fostering synergies with sister associations to advance microwave technologies for materials’ processing (IMPI, AMPERE) and characterization (EMMC, iNEMI) - via joint workshops and publications.
2. Collaborating with Affinity Groups, mainly Women in Engineering, to promote inter-society networking, soft skill’s developments, and support for underprivileged MTT professionals and students (including regions affected by wars, disasters, and inequities).

Note: due to the limit on the number of words, I have replaced full names by legal acronyms:

AMPERE - Association for Microwave Power in Europe for Research and Education

IMPI - The International Microwave Power Institute (in the US)

EMMC - European Materials Modelling Council AMI2030 - Advanced Materials Initiative (EU)

iNEMI - The International Electronics Manufacturing Initiative (US)



SANDEEP CHATURVEDI (M’07-SM’19) received his B.Sc. (Electronic) from A.P.S. University, Rewa (M.P.), India in 1995, M. Sc. (Electronics) from Dr. Hari Singh Gour University, Sagar (M.P.), India in 1997, M. Tech (Instrumentation) from Devi Ahilya University, Indore (M.P.), India in 1999 and Ph.D in Microwave Engg from IIT Delhi.

He joined the Gallium Arsenide Enabling Technology Center (GAETEC), Hyderabad, India’s only III-V MMIC foundry, in Nov 1999, where he has worked in the areas of RF characterization of high frequency active & passive devices and MMICs, RF measurement automation, MMIC packaging & modeling and design of state of the art MMICs. He is currently Deputy General Manager and Head- MMIC Design Center in GAETEC.

His current research interests and activities are in the field of device modeling, packaging and MMIC design on GaAs and GaN technologies from shortwave to millimeter wave frequencies. He has published more than 20 research papers in International journals and conferences.

IEEE ACTIVITIES:

COMMITTEES/BOARDS/REGIONS (IEEE major units):

Member, EDUCATION RESOURCES DEVELOPMENT, SUBCOMMITTEE, MTT-S EDUCATION COMMITTEE, Since January 2023.
DMI Ambassador, Region-10, India, Central Southern part (2022 and 2023)

SECTIONS/CHAPTERS:

Chapter Chair, Hyderabad Section MTT-S/AP-S/EMC-S Joint Chapter (2021,2022, 2023)

SOCIETY/SOCIETIES:

Senior Member of IEEE and MTT-S, EPS

QUALIFICATIONS:

I am a passionate and accomplished professional in the area of microwave components, subsystem design and testing. I have also been actively contributing to impart microwave education to engineering faculty and students during these years sharing my knowledge and experience with them through invited lectures, workshops etc. Being in the industry for over 23 years has helped me gain a good understating of the needs of the industry in terms of trained manpower, gap in delivery of industry ready curricula and ideas to bridge them. I have tried to implement few of these during my last 3 years of association as Chapter chair in the Hyderabad area and I can significantly enhance on this if I become part of the MTT-S Adcom.

MAJOR ACCOMPLISHMENTS:

1. Worked aggressively in increasing outreach of RF-Microwave field amongst students and connecting them to MTT-S in Hyderabad section. As a result the student membership saw a phenomenal growth (from <100 before 2021 to >600 by end of 2022). Motivated formation of **10 new student branch chapters** between 2021 and 2022. Besides this, conducted quality events for member engagement during 2021-2022. Hyderabad section chapter was awarded **MTT-S Outstanding Chapter for the year 2021** as recognition of these efforts.

2. Have developed a strong team of III-V MMIC designers starting from scratch (with new recruits) at GAETEC Hyderabad who have developed more than 100 state of the art MMIC (GaAs/GaN) products spanning functions and frequencies up to W band for the indigenous strategic requirements. Have been a key member of the team developing indigenous GaN and THz Schottky diode technologies contributing from device design, RF characterization and modeling perspective.

3. Have developed complex multifunction MMICs useful for ground and aerospace AESA radar systems. This includes both low power beam forming as well as high power RF front end MMICs.

Statement: If selected for the position I would like to continue my work towards re-kindling the interest of our future engineering students towards learning RF and microwave subjects with a strong focus on hands-on training. This endeavor would enable the engineering graduates to become industry ready which is essential in the hardware industry and currently the biggest pain point. This would also align with MTT-S MGA goals of increasing the membership base of the society. I would also like to involve with industry through my already established network in collaborating with academia in tailoring the RFMW curricula to suit the current and future needs of the industry in order to reduce the grooming period for new recruits in this domain. The third and most close area to my heart is to work on gender diversity in the heavily male oriented RF industry by motivating more and more girl/women students and researchers to take up RF/microwave research/teaching as their profession of choice.



HIMANI SAINI (AF'22-M'23) I have earned a Master of Science in *Industrial Mathematics and Informatics* from the Indian Institute of Technology Roorkee (IITR). The subject which influenced me the most was Operations Research therefore, completed my PhD in *Mathematical Programming* from IITR in 2011.

During the last phase of my PhD program, I got an opportunity to join Indian Space Research Organization (ISRO), since then I am working as a space scientist. After joining ISRO on 12th Apr 2010, Worked in the area of Launch Vehicles and Low Earth Orbit (LEO) Satellites. Currently, Working on Mission Design, Mission Planning, Mission Analysis, Implementation, Testing, Mission Operations and Maintenance of Low Earth Orbit Spacecraft's (IRS) missions.

In the past twelve years of service initially for 3 years, I worked on Launch Vehicle Programs at Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, later in 2013, I switched over to UR Rao Satellite Centre (URSC), Bangalore. Since then I am working on Mission Analysis, Mission Planning and Mission Operations for Low Earth Orbit Satellites till today. Being a mission expert, I am responsible for mission analysis, mission planning and mission operations. All these elements of mission start from the definition of the mission objective, design of satellite to accomplish the mission, realization of satellite, launch and to make operational till the end of mission life.

I have been involved in many programs of ISRO for communication needs, social obligations and scientific missions. I have actively participated and contributed for the success of various missions. I earned a responsible position in our interplanetary mission "Chandrayaan". Being an operation Director currently working on the world's 2nd Astronautical research project "XPOSAT" which is going to be launched very soon.

IEEE ACTIVITIES: My objective to join the IEEE family is to contribute more to benefit the human in technological and humanitarian dimensions. Although I am just two-year-old in IEEE but Outside IEEE being the part of various communities/societies trying to devote gained knowledge as per the experience gained in the field of Space Science and Technology and to help needed one in multi-

dimensional way. Although I am currently a Member Grade of IEEE still I am trying to contribute in several ways as I would like to help the needed people who lack resources, and knowledge in spite of having talent they are not able to progress in today's world and IEEE platform can also be effective in that manner.

- Life Time member of the **Astronomical Society of India (ASI)**.
- Member of **Automatic Control & Dynamics Optimization Society (ACDOS)**.
- Karnataka State Co-Ordinator **EMG Group Educational Trust**.
- Life Time Member **Working Group Generalized Convexity (WGGC)**.

IEEE Memberships:

- IEEE Sensors Council ExCom (Since Dec 2022)
- IEEE SIGHT ExCom (Since Nov 2022)
- IEEE Women In Engineering (WIE) (Since Jan 2023)
- IEEE Microwave Theory and Techniques Society (Since June 2021)

OTHER:

- Being an ExCom member of few societies, I have taken initiative to take the society to new heights. Therefore, in this regard I am actively participating regularly in meetings, providing suggestions whenever needed which has been in-corporate several times too. Also, actively participating in conducting various events in collaboration with multiple Engineering colleges.
- First time, I have initiated the Newsletter on a quarterly basis for IEEE Sensor Council and still working towards that to improvise further and further. This Newsletter will be released in June 2023.
- I have started the series of expert talks on celebration of 25-year celebration of the IEEE Sensors Council. Throughout the year various experts will be delivering the talk and at the end of the year all the speakers will be invited for panel discussion to interact with various engineering college students along with research scholars and faculty members.
- I have joined several activities of various societies as being an ExCom member like, delivering various talks on conferences/workshops under my space domain of work to various engineering colleges.
- Being an IITR alumni I am providing help, support, and guidance to various IIT undergraduates from time to time whenever they need.
- Being a member of the **Board Of Director (BOD)** of the Department of Mathematics of Chandigarh University, every year improvising the course contents by keeping the current trends in mind which can help students for their career growth and enhancement of skills. Also motivating the Young Engineering by delivering the Motivating talk.
- I also volunteer at the blood donation camp every year.
- Being a Yoga expert and Yoga committee member, I deliver talks, providing sessions on yoga and meditation. Every year I am organizing and conducting various events to celebrate International Yoga Day at my work place at ISRO and sometimes in my residential society.
- Being a member of the **National Science Day (NSD)** committee conducting various events for different age group students along with teachers every year.
- Being a member of **VISVAS Charitable Trust & Visva Vishnu Sahasranama Samsthan (VISVAS)**. Being co-ordinator of B47 Batch Global Group, conducting chanting of VSN every month and teaching VSN to local as well as global communities.

QUALIFICATIONS:

- Knowledge and familiarization of IEEE mission, structure, goals, needs, vision, and goals.
- I am Honest and maintain integrity and adherence to ethical standards with Excellent leadership skills including the ability to motivate others; negotiate, compromise, and resolve differences, maintain positive working relationships, and capability to set direction.
- Knowledge of the workings with various technical and non-technical committees.
- Capability to focus on strategic issues and make effectiveness on top priority.
- Capability of planning and scheduling task/activities in a defined time bound.
- Strong communication and consensus-building skills.
- Ability to act with discretion and preserve the confidentiality of confidential information.
- Sound decision-making skills to make timely decisions based on knowledge, analysis & judgment;
- Bring more awareness about YOGA/Meditation to keep fit soul, body and mind.

MAJOR ACCOMPLISHMENTS:

I have more contributions and accomplishments outside the IEEE and objective to join IEEE to contribute here in this domain too. After becoming a member of various IEEE societies, I started contributing in the IEEE domain as well.

- Addressed 25+ talks as a keynote speaker in various IEEE/Academic Conferences and Workshops. Recently, delivered a talk at IEEE Microwave Theory and Technology Society Workshop on Women in Microwaves (WIM) being organized on September 17, 2022 at **IIT, Kanpur**.
- **Stem Cell Donor** and member of Rotary Club Bangalore Lakeside since 2016.
- Member of **Manav Seva Kendra (MSK)**, MSK is an Organisation perform Social Service activities. Spread education as solution to every aspect of human life from Womb to Tomb. MSK also undertakes several Charitable activities and Activities to patronize Culture and Heritage.
- Member of **DKMS-BMST** non-profit foundation to improve the patient condition suffering from blood cancer and other blood disorder throughout the world. I am the active blood **Atem Cell Donor**.
- Active member of **VISVAS Charitable Trust & Visva Vishnu Sahasranama Samsthan (VISVAS)**. Being co-ordinator of B47 Batch

Global Group, conducting chanting of VSN every month. Achieved A, B and C01 level certification. Active member of A134 Batch too.

- Providing awareness about space programs to various IIT/NIT college engineering students.
- Being an IITR Alumni, I am the part of IITR Alumni mentorship programme to guiding B. Tech and M. Tech students regarding placement, university/college selection for higher studies anything related with their career growth.

My major milestone or pioneer works in ISRO are as follows:

Wind Component Statistics Generation

Wind Component Statistics generated by using the new regression techniques.

Status: The new data on wind statistics is now used by **launch vehicle trajectory designers**

Space Object Proximity Analysis (SOPA)

Assessment of the collision threats to our IRS/LEO satellites from other resident space objects

Status: Operational for the IRS Spacecraft at Vikram Sarabhai Space Centre (VSSC), Trivandrum

(Received ISRO Award for my contribution for this work)

Re-Entry Prediction of Spacecraft's (IADC Test Campaign)

Status: Developed methodology has been used for Re-entry prediction of Object declared by IADC

(Received ISRO Award for my contribution for this work)

Also, Received the **Team Excellence Award** for the year-2017 for my contribution towards **“Space Debris Mitigation and Management System”**.

Being a Quality Management System (QMS) **Certified Auditor**, also responsible for ISO 9001:2015 Implementation and Certification to **Mission Planning and Operations Group (MPOG)** under **Mission Development Area (MDA)**.

Statement: I can do major contributions towards development of research-oriented domain.

- I can prepare the structural board of the efficient members who can contribute and enhance that to new heights.
- Make and ensure the time management in order to accomplish any task/activities by making proper planning and scheduling.
- Very good in making task force team built up related activities.
- Good motivational speaker for spiritual, health and technical field domain.
- I can promote and work towards women empowerment by education & skill development programs for their growth especially to rural and undeveloped region women.
- Advocate people in leadership roles in IEEE governance and career advancement for men / women in the profession.
- I can provide leadership and assume ultimate responsibility for the timely fulfillment of all responsibilities of the IEEE as defined and required by the IEEE.
- I can Promote member grade advancement for IEEE members to the grades of Senior Member and Fellow.
- Facilitate the development of programs and activities that promote the entry into and retention of men/women in engineering programs.
- Program to mentor at College level.
- Organize receptions, workshops and forums at major technical conferences to enhance networking and to promote membership in IEEE.
- Recognize outstanding achievements in IEEE Fields of Interest through IEEE Awards nominations and other national/international award nominations.
- Promote member grade advancement for women to the grades of Senior Member and Fellow.
- Provide support for IEEE membership growth and membership elevation.Help to find sponsorship for IEEE programs, projects, and events.
- Establish subcommittees and ad hoc committees as needed and make appointments.
- I am very sincere, hardworking and capable to meet deadlines, to respond to communications in a fixed time frame.
- I can be a strong reviewer and provide the services in multi domain within time bound.
- I can hold in the technical stuff under my domain and prepare a good review board with transparency and bring the ethics to the board of the society.
- I can encourage and develop the research skills to young minds for good research work.