**Curriculum Vitae**

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**Zhizhang (David) Chen, Ph. D., P. Eng., FIEEE, FCAE and FEIC**

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Dr. Chen's educational journey began with a B.Eng. Degree in Radio Engineering from Fuzhou University, Fujian, China, in 1982, followed by an M.A.Sc. Degree in Radio Engineering from Southeast University, Nanjing, China, in 1986, and culminated in a Ph.D. in Electrical Engineering from the University of Ottawa, Ontario, Canada, in 1992. In 1993, he commenced his postdoctoral journey as an NSERC fellow at McGill University, setting the stage for his ascent as a distinguished figure in academia. Since 1993, Dr. Chen has been with the Department of Electrical and Computer Engineering at Dalhousie University, Halifax, Nova Scotia, Canada, where he holds the full professor position. His tenure at Dalhousie has been marked by leadership roles, including serving as a former Department Head and the University's Distinguished Research Professor.

Beyond the confines of his university, Dr. Chen’s impact reverberates internationally. He is a trailblazer in computational electromagnetics, antennas, radio-frequency and microwave circuits and systems, wireless power and wireless communication theory and technology. His body of work encompasses over 450 refereed journal and conference papers, two books, 25 industrial reports, and 16 patents. Notably, two of his papers on unconditionally stable finite-difference time-domain methods earned recognition in the top 1% of their field in 2002, according to Essential Science Indicators (ESI) by Thomson Reuters. Furthermore, his recent paper on the unification of numerical methods was the most downloaded IEEE Transactions on Microwave Theory and Technology (MTT) paper for the first four months of 2022. It remained among the top 50 MTT downloaded papers for 16 of the past 22 months, showcasing his enduring influence even in a niche research domain. He has completed nearly 100 graduate students, most working in Canada and the US and four of them starting their own companies. He has also supervised more than 120 senior student projects, and some of them won various prizes.

In addition to his prolific research output, Dr. Chen assumes leadership roles in various capacities. He serves as an editor for prestigious journals such as the IEEE Transactions on MTT and is the current topic editor of the IEEE Journal of Microwaves. He has played roles as an Ad-Com member of the IEEE Antennas and Propagation Society and as the Chair of the Wireless Communications Committee and Field Theory & Computational Electromagnetic Committee of the IEEE MTT Society. Dr. Chen has shared his expertise with grant selection committees, chairing the NSERC Research Tool and Equipment grant selection committee and serving as an NSERC Discovery Grant selection committee member.

Recognition of Dr. Chen's contributions includes the 2005 Engineering Award of Nova Scotia and the 2013 IEEE Fessenden Medal. His outstanding achievements include being appointed the Dalhousie Killam Chair in wireless technology in 2006 and later recognized as the Dalhousie University Distinguished Research Professor in 2017. Honoured as a Fellow of the Institute of Electrical and Electronic Engineers (IEEE), the Canadian Academy of Engineering, and the Engineering Institute of Canada in 2010, Dr. Chen has also been selected as a UK Royal Society Visting Fellow at the University of Nottingham. Beyond the traditional realms of academia, he has co-founded two start-up companies, one specializing in wireless power and the other dedicated to robotics. Dr. Chen's dual involvements in scholarly work and technology transfer to industry speak to his multidimensional impact, not only in advancing academic knowledge but also in contributing to the practical implementation of innovative technologies.

**EDUCATION:**

1992 **Ph.D.** in Electrical Engineering, Dept. of Electrical Engineering, University of Ottawa, Ontario, Canada   
Supervisors: Professors Michel M. Ney and Wolfgang J. R. Hoefer.

1986 **M. A. Sc.** in Radio Engineering, Dept. of Radio Engineering, Southeast University (formerly Nanjing Institute of Technology), P. R. China;   
Supervisory committee: Professors Bo-Xiu Wu, Quan-Rang Yang, Wen-Xun Zhang, Jun-Ming Shi, Da-Chuang Fang.

1982 **B. Eng.** in Radio Engineering, Dept. of Radio Engineering, Fuzhou University, P. R. China.

**POSTDOCTORAL TRAINING:**

1993 **NSERC Postdoctoral Fellow**, Electrical Engineering, McGill University, Montreal, Quebec, Canada; Supervisor: Professor Peter P. Silvester.

**LEADERSHIP POSITIONS**

2024-2026 **Ad-Com Member** (voted in by society membership and elected), IEEE Microwave Theory and Technology Society (MTT-S).

2024-2026 **Vice Chair,** Membership and Geographic Activities Committee, IEEE Microwave Theory and Technology Society (MTT-S).

2024-2025 **Elected Chair, Wireless Power Transfer and Energy Conversion (TC-25)** (elected by peers)**,** *IEEE Microwave Theory and Techniques Society*.

2023-present **Head (Acting)**, Department of Electrical and Computer Engineering, Dalhousie University, Halifax, Nova Scotia.

2021-2022 **Elected Chair, Field Theory and Computational Electromagnetics (TC-1)** (elected by peers)**,** IEEE Microwave Theory and Techniques Society.

2020-2022 **Ad-Com Member** (elected by society membership), IEEE Antennas and Propagation Society (AP-S).

2020-2022 **Chair, Membership and Benefits Committee** (elected by peers), IEEE Antennas and Propagation Society (AP-S).

2019-2020 **Elected Chair, Wireless Communications Committee (TC-23)** (elected by peers), *IEEE Microwave Theory and Techniques Society*.

2019-2023 **Vice-Chair, Wireless Power Transfer and Energy Conversion (TC-25)** (elected by peers), *IEEE Microwave Theory and Techniques Society*.

2011-2018 **Head**, Department of Electrical and Computer Engineering, Dalhousie University, Halifax, Nova Scotia.

2018-2019 **Chair,** **NSERC (Natural Sciences and Engineering Research Council of Canada) Research Tools and Equipment Committee –** Electrical and Computer Engineering.

2016-2019 **Co-Founder** and **Vice-Chair of the Board of Directors** (part-time),Sprouting Technology Co. Ltd., Chengdu, Sichuan, China.

1994-2002 **Executive** of IEEE Atlantic Section, Halifax, Nova Scotia, Canada.

2000-2001 **Elected Chair** of IEEE Canada Atlantic Section and a member of the Board of Directors for IEEE Canada (2000-2001).

2009-2011 **Founding Chair** of the Chapter of IEEE Signal Processing/Microwave Theory & Techniques, Canadian Atlantic Section.

**ACADEMIC APPOINTMENTS:**

2002-present **Professor**, Department of Electrical and Computer Engineering, Dalhousie University, Halifax, Nova Scotia.

1998-2002 **Associate Professor**, Department of Electrical and Computer Engineering, Dalhousie University, Halifax, Nova Scotia, Canada.

(Averaged teaching load: 3 undergraduate and 2 graduate courses per year)

1993-1998 **Assistant Professor**, Department of Electrical and Computer Engineering, Dalhousie University, Halifax, Nova Scotia. (Averaged teaching load: 3 undergraduate and 2 graduate courses per year)

1988-1992 **Teaching Assistant**, University of Ottawa, Ontario

1985-1988 **Lecturer (equivalent to Assistant Professor)**, Fuzhou University, P. R. China

**OTHER MAJOR APPOINTMENTS:**

2013 **Cyclical Graduate Program Review Committee** for Electrical and Computer Engineering, McMaster University, Hamilton, Ontario, Canada.

2012 **Canadian Engineering Accreditation Board Program Visiting Team** for ECE Program of the University of Alberta, November 2012.

2008-2011 **NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grant Committee –** Electrical and Computer Engineering.

2007 **Visiting Fellow**, Royal Society of United Kingdom and School of Electrical and Electronic Engineering, University of Nottingham, Nottingham, United Kingdom, financially sponsored.

2007 **Visiting Full Professor**, École Nationale Supérieure des Télécommunications de Bretagne, Brest, France.

2006-2009 **Guest Professor**, School of Electronic Information and Electrical Engineering, Shanghai Jiao Tong University, Shanghai, China.

2006-present **Adjunct Full Professor**, College of Physics and Information Engineering, Fuzhou University, Fuzhou, China.

2005-2009 **Senior Research Advisor (part-time)**, Cobham Tracking and Locating Ltd. (formerly Seimac Ltd.).

2004-2007 **NSERC (Natural Sciences and Engineering Research Council of Canada) Strategic Project Selection Panel –** Information and Communication Technology, Canada.

1999-2000 **Visiting Faculty**, Department of Electronic and Electrical Engineering, Hong Kong University of Science and Technology, Hong Kong.

1994 **Summer Visiting Professor**, Nortel Networks Ltd., Ottawa, Ontario, Canada.

**JOURNAL EDITORSHIP:**

2020-present **Topic Editor, Founding Editorial Board**, *IEEE Journal of Microwaves* (open access).

2023-2024 **Guest Editor, Special Issue** on Measurement-Computation Fusion for Advanced Electromagnetic Modeling, Simulation, and Evaluation, *IEEE Antennas and Propagation Letters*, November 2024.

2023-2024 **Guest Editor, Special Issue** on 2023 IEEE International Wireless Symposium, *IEEE Transactions on Microwave Theory and Techniques*, Vol. 72, No. 2, February 2024.

2019-2022 **Track Editor** on Electromagnetic Theory and Analysis Techniques, *IEEE Transactions on Microwave Theory and Techniques.*

2004-2022 **Editorial Board**, *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, John Wiley & Sons.

2018-2019 **Guest Editor**, **Special Issue** on *2018 IEEE Wireless Power Transfer Conference, IEEE Transactions on Microwave Theory and Techniques*, Vol. 67, No. 5, May 2019.

2018-2019 **Guest Editor**, **Special Issue** on *2018 IEEE International Wireless Symposium, IEEE Transactions on Microwave Theory and Techniques*, Vol. 67, No. 2, February 2019.

2016-2019 **Associate Editor**, **Founding Editorial Board**, *IEEE* *Journal on Multiscale and Multiphysics Computational Techniques*.

1996-2019 **Editorial Board** for *IEEE Transactions on Microwave Theory and Technique.*

2016-2017 **Guest Editor**, **Special Issue** for the IEEE 2016 Numerical Electromagnetic Modeling and Optimization (NEMO)*, IEEE Transactions on Microwave Theory and Techniques,* Vol. 65, No. 8, August 2017.

2015-2016 **Guest Editor**, **Special Issue** for the IEEE 2015 Numerical Electromagnetic Modeling and Optimization (NEMO)*, IEEE Transactions on Microwave Theory and Techniques,* Vol. 64, No. 8, August 2016.

2014-2020 **Editorial Board**, *Journal of Wireless Power Transfer*, Cambridge Press

2013 **Guest Editor**, Special Issue on Wireless Power Transmission, *IEEE Microwave Magazine*, Vol. 14, No. 2, April 2013.

2004 **Guest Editor**, *International Journal of Numerical Modelling-Electronic Networks, Devices and Fields (Johns Wiley)*, Focused issue on the 5thInternational Workshop on Computational Electromagnetics in the TimeDomain, May/June 2004.

**OTHER HONORS AND DISTINCTIONS:**

2017-2022 **Distinguished University Research Professor,** Dalhousie University, Canada.

2016 **2015 Senior Faculty Research Award** from the Faculty of Engineering, Dalhousie University.

2013 **Fessenden Telecommunications Medal** for contributions to electromagnetic modelling of communication devices and systems, IEEE Canada.

2013 **Fellow** of the Engineering Institute of Canada (Inducted).

2010 **Fellow** of the Canadian Academy of Engineering (Inducted).

2010 **Fellow** of the IEEE (Institute of Electrical and Electronic Engineering) (Elected) for contributions to time-domain electromagnetic modelling and simulation.

2005-2010 **I. W. Killam Chair Professor in Wireless Technology**, Dalhousie University, Killam Foundation, Canada.

2007 **Visiting Fellow**, Royal Society of United Kingdom, for a short-term research visit to the School of Electrical and Electronic Engineering, University of Nottingham, Nottingham, United Kingdom.

2007 **Dean’s Research Excellence Award** from the Faculty of Engineering, Dalhousie University.

2006 **Graduate Teaching Excellence Award,** Dalhousie University.

2006 **Electrical and Computer Engineering Professor of the Year**, Dalhousie University.

2006-2009 **China National Natural Science Joint Research Fund for Distinguished Young Scholars (overseas)** (in collaboration with Shanghai Jiao Tong University).

2005 **Engineering Award**, Association of Professional Engineers of Nova Scotia.

1994-1998 **TUNS Special Merits**, Faculty of Engineering, Dalhousie University (Formerly the Technical University of Nova Scotia).

1993 **NSERC Postdoctoral Fellowship**, Natural Science and Engineering Research Council of Canada.

1991-1992 **Ontario Graduate Scholarship** (OGS), Ontario, Canada.

1990 Association of Professors University of Ottawa **Student Award**.

1989-1990 Graduate **Entrance Scholarship**, University of Ottawa.

1989-1990 Foreign Student **Tuition Fee Waiver Award**, University of Ottawa.

**INVITED SEMINARS AND PRESENTATIONS:**

2023 **Invited plenary presentation** entitled “Advancements in time reversal techniques for retrospective and inverse problems: unveiling new avenues in electromagnetic applications,” *2023 Cross-Strait Radio Science and Wireless Technology Conference,* Guilin, China, Nov. 10-13, 2023.

2023 **Invited keynote presentation** entitled “Time reversal for retrodirective and inverse problems: the continuous quest for its new theory and applications,” *2023 International Workshop on Microwaves and Microsystems*, Tianjin, Oct. 27-28. 2023.

2022 **Invited keynote presentation** entitled “A few of our recent designs involving optimization,” *2022 International Workshop on Microwaves and Microsystems*, Tianjin, Nov. 5, 2022.

2022 **Invited workshop presentation** in the Workshop (VM06) entitled “Recent developments in wireless power transfer and energy harvesting,” in *2021 European Microwave Week,* April 4-7, 2022, London, United Kingdom.

2021 **Invited seminar on** unification of numerical methods, *Frontier Academic Forum*, School of Electronics, Peking University, Dec. 17, 2021.

2021 **Invited keynote presentation** entitled “High-performance metasurfaces and applications,” *2021 International Workshop on Microwaves and Microsystems*, Tianjin, Oct. 22, 2021.

2020 **Invited keynote presentation** entitled “Intermediate and short distance wireless power – opportunities, technology and challenge,” *2020 Guangdong-Hongkong Great* Bay *Information Technology Forum)*, Dec. 9, 2020, Guangzhou, China.

2020 **Invited keynote presentation** entitled “Recent progress on the wireless power harvesting and transfer for communications,” *2019 Intl. Conference on Computing, Networking and Communications (ICNC 2020)*, Feb. 17-20, 2020, Big Island, Hawaii, USA.

2019 **Invited presentation** entitled “The time-reversal source reconstruction with the entropy technique,” *2019 IEEE Asia Pacific Microwave Conference (APMC2019)*, Dec. 10-13, 2019, Singapore.

2019 **Invited keynote presentation** entitled “Wireless power harvesting and transfer – progress and challenges,” *2019 IEEE 2nd International Conference on Renewable Energy and Power Engineering (Repe2019)*, November 2-4, 2019, Toronto, Canada.

2019 **Invited keynote presentation** entitled “Wireless power harvesting and transfer – progress and challenges,” *2019 Asian Wireless Power Transfer (AWPT2019) Workshop*, Oct. 31- Nov. 2, 2019, Xi’an, Canada.

2018**Invited plenary presentation** entitled “Wireless Power Transfer – Towards a Three-Dimensional Transmission,” *2018 Asia Wireless Power Transfer Workshop (AWPT),* Nov. 1 – Nov. 4, 2018, Sendai, Japan.

2018 **Invited plenary presentation** entitled “Time-reversal to inverse problems?”, *2018 International Applied Electromagnetics Society Symposium (ACES),* July 29 - August 1, 2018, Beijing, P. R. China.

2017**Invited presentation** entitled “Reconstruction of sparse radiation sources above a finite ground plane,” *2017 IEEE Electrical Design of Packaging & Systems*, Hangzhou, Dec. 14-16, 2017.

2017 **Invited presentation** entitled “Recent progress in time-domain electromagnetic modelling,” *2017 Sixth Asia-Pacific Conference on Antennas and Propagation (APCAP),* Oct. 16-19, Xi’an, China.

2017 **Invited presentation** entitled “Time-domain numerical modelling: what is new and next?” *2017 International Workshop on High-Performance Computing for Electromagnetic and Multiphysics Modeling,* May 12-13, 2017, Haining, P. R. China.

2017**Invited plenary presentation** entitled “Mid- and long-range wireless power transfer,” *2017 IEEE PELS Workshop on Emerging Technologies: Wireless Power,* May 20-22, 2017, Chongqing, P. R. China.

2017 **Invited presentation** entitled “Three recent advances in electromagnetic modelling with the finite-difference time-domain (FDTD) method,” *32nd URSI GASS*, Montreal, Aug. 19-26, 2017.

2016 **Invited Keynote presentation** entitled “What is new and next in time-domain numerical modelling?” *2016 IEEE International Conference on Numerical Electromagnetic Modeling and Multiphysics Optimization (NEMO2016) for RF, Microwave and Terahertz Applications,* July 26-29, 2016, Beijing, P. R. China.

2016 **Invited presentation** entitled “Towards the wave-equation based explicit FDTD method without numerical instability,” *2016 IEEE International Conference on Computational Electromagnetics,* Feb. 23-25, 2016, Guangzhou, P. R. China (one the 14 best conference paper nominations).

2015 **Invited plenary presentation** entitled“A unifying theory and computing platform for numerical methods,” *2015 Chinese National Conference on Antennas,* Oct. 18-Oct. 21, 2015, Nanchang, Jiangxi, P. R. China.

2015 **Invited plenary presentation** entitled “Nonlinear signal processing for pulse-based ultra-wideband (UWB) radios” *2015 IEEE International Conference on Communication Problem-Solving,* Guiling, China, October 16-18, 2015.

2015 **Invited keynote presentation** entitled “Unlock the mystery of numerical methods that solve electromagnetic problems,” *2015 IEEE Asia-Pacific Conf. on Antennas and Propagation (APCAP)*, July 1-4, 2015, Bali Island, Indonesia.

2015 **Invited keynote presentation** entitled“Wireless power transfer technology - challenges & progress,” *2015 IEEE International Conference on Consumer Electronics - China*, April 9-11, 2015, Shenzhen, P. R. China.

2014 **Invited keynote presentation** entitled“**Nonlinear signal processing technologies for pulse-based ultra wideband,”** *2014 Cross-Strait Radio Science and Wireless Technology Conference*, July 29-Aug. 2, 2014, Hangzhou, P. R. China.

2014 **Invited session presentation** entitled“How can we unify numerical methods with a single mathematic framework?,” *the 2014 Asia-Pacific Conference on Antennas and Propagation (APCAP2014)*, Harbin, China, July 26-28, 2014.

2013 **Invited keynote presentation** entitled“Can we unify numerical methods with a single mathematical framework?**” *the 16th IEEE International Conference on Computational Science and Engineering*, Sydney, Australia, Dec. 2-5, 2013.**

**2013 Invited keynote presentation** entitled “**Electromagnetic modelling for communication systems and devices,” *the 4th International Conference on Computational Problem Solving*, Jiuzhai Valley, Sichuan, P. R. China, Oct. 26-28, 2013.**

2013 **Invited special session presentation** entitled“Node-based meshless methods: A way of generalizing numerical modelling techniques,” *2013 International Conference on Antennas and Propagation (ICAP)*, Oct. 23-25, 2013, Nanjing, P. R. China.

2013 **Invited keynote presentation** entitled“**Essence of numerical methods,”** *2013 Cross-Strait Quad-Regional Radio Science and Wireless Technology Conference*, July 22, 2013, Chengdu, P. R. China.

2013 **Invited distinguished speaker,** *Speaker Series,* Dept. of Computer and Information Science/Dept. of Electrical and Computer Engineering/Dept. of Industrial and Manufacturing Systems Engineering, University of Michigan-Dearborn, Michigan, USA, Feb. 1, 2013.

2012 **Invited keynote presentation** on nonlinear signal processing technologies for ultra-wideband radios in *IEEE International Conference on Ultra Wideband (ICUWB)*, Sept. 17-20, 2012, Syracuse, New York, USA.

2011 **Invited presentation** on unifying theory of numerical methods in *International Conference on Electromagnetics in Advanced Applications (ICEAA)*, Sept. 12-16, 2011, Torino, Italy.

2011 **Keynote presentation** on ultra wideband wireless radios,*IEEE Conference on Emerging Technologies*, Sept. 5-6, 2011, Islamabad, Pakistan.

2010 **Invited keynote** **presentation** on node-based meshless numerical methods,*The 3rd Conference on Ultra Wideband Short-Pulse Electromagnetics,* Dec. 17-19, 2010, Hangzhou, P. R. China.

2010 **Invited presentation** on node-based meshless method, *IEEE Singapore Section and Nanyang Technological University*, Singapore, Nov. 29, 2010.

2010 **Invited presentation** entitled “The method of weighted residuals and meshless methods for electromagnetic modelling” and “Recent progress of the ultra wideband impulse radio systems,”*International Forum on EMC/EMI Technology,* Sponsored by IEEE Beijing Section, Nov. 23-25, 2010, Beijing.

2010 **Invited presentation** in the workshop entitled “New theories, applications and practices of electromagnetic field simulators,”*2010 IEEE International Microwave Symposium (IMS),* May 23-28, 2010, Anaheim, CA, USA.

2010 **Invited presentation** in the workshop entitled “Ultra-wideband (UWB) technology: The state-of-the-art and applications,”*2010 IEEE International Microwave Symposium (IMS),* May 23-28, 2010, Anaheim, CA, USA.

2010 **Invited presentation** on moving from grid-based methods to node-based meshless techniques*,* Ecole Polytechnique de Montreal, May 13, 2010.

2010 **Invited presentation** on emerging code-shifted-reference UWB impulse radio system*,* sponsored by IEEE AP and SPMC Ottawa chapter and Department of Electronics, Carleton University, Feb. 25, 2010.

2009 **Invited presentation** moving from grid-based methods to node-based meshless techniques*,* sponsored by IEEE AP and SPMC Ottawa chapter and Department of Electronics, Carleton University, Sept. 18, 2009.

2008 **Invited presentation on** unification of numerical methods, Shanghai Jiao Tong University, May 27, 2008.

2008 **Invited workshop presentation** entitled “Unification of time- and frequency domain numerical methods,” *2008 IEEE International Microwave Symposium (IMS),* June 15-20, 2008, Atlanta, Georgia.

2008 **Invited Seminar tour (3 seminars presented)** on unification of numerical methods, Shanghai Jiao Tong University, Southeast University, and Beihang University, P. R. China, May 24-June 11, 2008.

2008 **Tutorial** on transceiver technologies for impulse radio ultra-wideband (IR UWB) wireless Systems, *2008 Annual Conference on Communication Networks and Services Research (CNSR2008),* May 5-8, 2008, Halifax, Nova Scotia.

2007 **Invited presentation** on DSP-based retrodirective antenna systems, Nov. 23, 2007, Department of Electrical and Computer Engineering, University of Calgary.

2007 **Invited Seminar on** unification of numerical methods, School of Electronic and Electrical Engineering, University of Nottingham, October 18, 2007.

2007 **Invited Seminar on** unification of numerical methods, Department of Electronic Engineering, Queen Mary, University of London, October 8, 2007.

2007 **Invited four presentations** on electromagnetic modelling and retrodirective antenna systems, April and July 2007, École Nationale Supérieure des Télécommunications de Bretagne, Brest, France.

2007  **Short course** on time-domain electromagnetic simulator, *2007 IEEE International Microwave Symposium (IMS),* June 3-8, 2007, Honolulu, Hawaii.

2006 **Invited presentation** on resonant effects in multilayer RF/microwave printed circuit board structures, *2006 International Workshop on Electrical Design of Advanced Packaging and Systems (EDAPS)*, Dec. 17-18, 2006, Shanghai, P. R. China.

2006 **Seminar tours (7 seminars presented)** on wireless communications systems and RF/microwave modelling and design, Beihang University (Beijing), and Fuzhou University, P. R. China,Oct. 12-Dec. 12, 2006.

2006 **Invited presentation** on DSP-based retrodirective array systems for digital communications, Department of Electronics, Carleton University, and IEEE Ottawa AP/MTT Joint Chapter, September 15, 2006, Ottawa, Canada.

2006 **Invited presentation** on retrodirective transceiving systems, sponsored by the Department of Electrical and Computer Engineering, University of British Columbia, and IEEE Vancouver Chapter of IEEE Comm. Society, June 21, 2006, Vancouver, Canada.

2004 **Invited keynote speech** on unconditionally stable FDTD methods and their applications, *the 3rd International Conference on Computational Electromagnetics and Its Applications (ICCEA2004)*, November 1-4, 2004, Beijing, China.

2004 **Invited presentation** on time domain modelling of electromagnetic wave propagation with hybrid ADI-FDTD/FDTD techniques in a special session entitled “Enhancing and Hybridizing FDTD,” *Digest of 2004 IEEE Antennas and Propagation Society International Symposium (AP-S)*, June 20-26, 2004, Monterey, California.

2003 **Invited presentation** on time domain modelling of electromagnetic wave propagation with finite differences techniques, University of Manitoba, April 11, 2003, Winnipeg, Manitoba, Canada.

2001 **Special lecture** in *the Fourth International Workshop on Computational Electromagnetics in the Time Domain – TLM, FDTD and Related Techniques*,September 17-19, 2001, Nottingham, UK.

2001 **Invited presentation** at *the International Conference on Electromagnetics in Advanced Applications (ICEAA)*, September 10-14, 2001, Torino, Italy.

2001 **Invited presentation** in *the 8th International Symposium on Microwave and Optical Technology (ISMOT)*, June 19-23, 2001, Montreal, Quebec.

2000 **Workshop speaker** in *IEEE International Microwave Symposium (IMS),* on Microwave CAD and Electromagnetic Modeling, June 11-16, 2000, Boston, Massachusetts.

2000 **Two invited presentations** in *Progress in Electromagnetic Research Symposium (PIERS)*, July 5-15, 2000, Boston, Massachusetts.

1999 **Seminar** on electromagnetic modelling, Department of Mathematics, *The Chinese University of Hong Kong*, November 20, 1999, Hong Kong.

1999 **Seminar** on RF Interconnection and Packaging, Department of Electrical and Electronic Engineering, The Hong Kong University of Science and Technology, November 17, 1999, Hong Kong.

1999 **Invited presentation** on wideband balun studies, *Advanced Wireless Forum, Nortel Networks Ltd*., November 18-20, 1999, Ottawa, Ontario.

1998 **Invited presentation** on RF/microwave circuit design, *Advanced Wireless Forum*, Nortel Networks Ltd*.*, October 18-20, 1998, Ottawa, Ontario.

1997 **Seminar tours (6 seminars presented)** on Wireless Communications Systems and RF/Microwave Modelling and Design, Southeast University (Nanjing), Xiamen University (Xiamen), and Jimei University (Xiamen), P. R. China**,** Dec. 7-18, 1997.

1997 **Invited presentation** on RF interconnection and packaging, *Advanced Wireless Forum*, Nortel Networks Ltd., November. 17-18, 1997, Richardson, Texas.

1997 **Invited presentation** on PCB packaging modelling, *Advanced Wireless Forum*, Nortel Networks Ltd., November 17-18, 1997, Ottawa, Ontario.

1996 **Invited presentation** in *Progress in Electromagnetic Progress Symposium (PIERS)*, August 1-3, 1996, Innsbruck, Austria.

1995 **Invited Keynote presentation** at *the First International Workshop on the Transmission Line Matrix ;(TLM) Method*, August 1-3, 1995, Victoria, B. C.

1994 **Invited presentations** at the University of Ottawa and the University of Victoria, Victoria, British Columbia, Canada.

1991 **Invited presentation** on earth-satellite receivers, Ecole-Polytechnique de Montreal, Montreal, Quebec, Canada.

**PROFESSIONAL ACTIVITIES:**

**International**

* 1. **Elected Member**, Administrative Committee (Ad-Com), IEEE Microwave Theory and Technology Society.

1. **Chair/Organizer**, Special MTT-S Inter-Society Technology Panel Session - Wireless Power Technologies, European Microwave Week, Sept. 17-22, 2023, Berlin, Germany.

2020-2024 Selected **Technical Paper Review Committee Member**, IEEE International Microwave Symposium in various US cities.

2023 **Senior Professional Panelist**, IEEE MTT-S Young Professionals Workshop on Electromagnetic Modeling and Optimization (online), Nov. 4, 2023.

2022-2023 **Technical Program Chair**, 2023 IEEE International Wireless Symposium, May 2023, Qingdao, China.

2021-2022 **Conference Chair,** IEEE 10th Asia-Pacific Conference on Antennas and Propagation, Nov. 4-7, 2022, Xiamen, China.

2019-2020 **Conference General Chair**, 2022 Cross-Strait Radio Science & Wireless Technology Conference, Beijing, China, Dec. 17-18, 2022.

2021-2022 **Elected Chair, Field Theory and Computational Electromagnetics (TC-1),** IEEE Microwave Theory and Techniques Society.

* 1. **Elected Member**, Administrative Committee (Ad-Com), IEEE Antennas and Propagation Society.

2019-2022 **Member,** **IEEE Fellow Evaluating Committee**, IEEE Microwave Theory and Technique Societies.

2020-2021 **Chair**, **Special Session** entitled “Towards a unified view of computational electromagnetics,” 2021 IEEE International Symposium on Antennas and Propagation and Northern American Radio Science Meeting, December 4-10, 2021, Singapore.

2021-2021 **Technical Program Advisor and Education Forum Panelist**, 2021 IEEE International Wireless Symposium, May 23-26, 2021, Nanjing, China.

* 1. **Award/Competition Chair**, 2021 IEEE Wireless Power Transfer Conference, San Diego, USA, June 1-4, 2021.

2019-2020 **Award Committee**, **Student Paper Competition** **Chair**, **IMS Liaison**, 2020 IEEE International Conference on Numerical Electromagnetic and Multiphysics Modeling and Optimization (NEMO2020), Dec. 7-9, 2020, Hangzhou, China.

2019-2020 **Conference Chair**, 2020 Cross-Strait Radio Science & Wireless Technology Conference, Fuzhou, China, Oct. 11-14, 2020.

2019-2020 **Technical Program Advisor**, IEEE International Wireless Symposium, Shanghai, China, Sept. 20-23, 2020.

2019-2020 **International Advisory Committee**, IEEE International Conference on Computational Electromagnetics (ICCEM), Singapore, Aug. 24-26, 2020.

2019-2020 **Conference Co-Chair**, 9th Asia-Pacific Conference in Antennas and Propagation, Xiamen, China, Aug. 4-7, 2020.

2019-2020 **Chair**, **International Advisory Committee**, 2020 IEEE International Symposium on Antennas and Propagation and Northern American Radio Science Meeting, July 5-10, 2020, Montreal, Quebec, Canada.

2019-2020 **Technical Program Committee and Session Chair**,2020 IEEE Asia-Pacific Microwave Conference (APMC), Singapore, Dec. 10-13, 2019.

2019-2020 **International Advisory Committee Chair**, 2019 Asian Wireless Power Transfer Workshop, | Xi’an, China, Oct. 31–Nov. 2, 2019.

2019-2020 **Advisory Committee**, IEMANTENNA (International Electromagnetics and Antenna Conference 2019), University of British Columbia, Vancouver, Canada, Oct. 17-19, 2019.

2019-2022 **IEEE Fellow Evaluating Committee**, IEEE Microwave Theory and Technique Societies.

2019-2020 **Technical Committee**,*2020 Asia-Pacific International Symposium on Electromagnetic Compatibility*, Sydney, Australia, May 19-22, 2020.

2019-2022 **Chapter Activities Committee**, *IEEE Antennas and Propagation Society*.

2019-2020 **Chair, Membership Committee,** *IEEE Antennas and Propagation Society*.

2019-2020 **Elected Chair, Wireless Communications Committee (TC-23),** *IEEE Microwave Theory and Techniques Society*.

2019-2020 **Elected Vice-Chair, Wireless Power Transfer and Energy Conversion (TC-25),** *IEEE Microwave Theory and Techniques Society*.

2018-2019 **Technical Paper Review Sub-Committee #2 Vice-Chair**/**Session Tu2B Co-Chair/Student Paper Judge/Student Design Competition Co-Chair for Adaptive Relay Receiver**, *2019 IEEE International Microwave Symposium,* June 2-7, 2019, Boston, USA.

2018-2019 **Chair, Sub-Committee #1**, Progress in Electromagnetics Research Symposium, Xiamen, Fujian, Dec. 17-20, 2019.

2018- **Chair and then Co-Chair, Membership & Benefits Committee,** *IEEE Antennas and Propagation Society*.

2017-2020 **Executive Committee** for *International Wireless Symposia, IEEE Microwave Theory and Techniques Society*.

2017-2022 **Inter-Society Committee**, *IEEE Microwave Theory and Techniques Society*.

2016-2022 **IEEE 1597.1 Revision Working Group**, *IEEE Electromagnetic Compatibility Society*

2018-2019 **Technical Committee**,*2019 European Conference on Antennas and Propagation (AP-S)*, March 31-April 5, 2019, Krakow, Poland.

2018-2019 **Technical Committee/IMS Liaison Officer/Special Session Organizers/Chairs**,*2019 IEEE International Conference on Numerical Electromagnetic and Multiphysics Modeling and Optimization (NEMO)*,May 28-31, 2019, Boston*,* USA.

2018-2019 **International Advisory Committee/Session Chairs**, *2019 IEEE International Wireless Symposium (IWS),* June 6-10, 2018, Chengdu, Sichuan, China.

2018-2019 **Technical Committee**,*2019 IEEE Wireless Power Transfer Conference (WPTC)*, June 17-21, 2019, London, UK.

2017-2018 **Technical Program Committee Chair**, *2018 IEEE International Wireless Symposium (IWS),* June 6-10, 2018, Chengdu, Sichuan, China.

2017-2018 **International Advisor Committee Co-Chairs/Short Course/Tutorial Chair**, *2018 International Applied Electromagnetics Society Symposium (ACES),* July 29 - August 1, 2018, Beijing, P. R. China.

2017-2018 **Chair, Technical Paper Review Sub-Committee #2**, *2018 IEEE International Microwave Symposium (IMS),* June 10-15, 2018, Philadelphia, USA.

2017-18 **Technical Committee Co-Chair**,*2018 IEEE Wireless Power Transfer Conference (WPTC)*, Montreal, June 4-7, 2018.

2017 **Sub-Committee #1 (**Computational Electromagnetics, Electromagnetic Compatibility, Scattering and Electromagnetic Theory) Co-Chair,*39th PIERS (Progress in Electromagnetics Research Symposium)*. Singapore, Singapore, Nov. 19-22, 2017.

2016-17 **Technical Committee and Session Chair**,*2017 IEEE Wireless Power Transfer Conference (WPTC)*, Taiwan, May 10-12, 2017.

2016-17 (1) **Technical Paper Review Sub-Committee #2**, (2) **Special-Session Organizer and Chair**, and (3) **Student Design Competition Co-Chair on Wireless Energy Harvesting**,*2017 IEEE International Microwave Symposium (IMS),* June 4-9, 2017, Honolulu, Hawaii, USA.

2016 **General Chair**, *2016 Asia Wireless Power Transfer Workshop (AWPT)*, Dec. 16-18, 2016, Chengdu, China.

2015-16 **Technical Committee and Award Committee Chair**,*2016 IEEE MTT-S International Conference on Numerical Electromagnetic and Multi-physics Modeling and Optimization (NEMO) for RF, Microwave and Terahertz Applications,* July 27-29, 2016, Beijing.

2015-16 **Technical Paper Review Sub-Committee #2 Co-Chair** and **Student Design Competition Co-Chair on Wireless Energy Harvesting**,*2016 IEEE International Microwave Symposium (IMS),* May 21-27, 2016, San Francisco, USA.

2015-16 **Technical Committee**,*2016 17th International Symposium on Antenna Technology and Applied Electromagnetics (ISAPE),* July 10-13, 2016, Montreal.

2015-16 **Technical Committee**,*2016 IEEE Wireless Power Transfer Conference (WPTC)*, Aveiro, Portugal, May 5-6, 2016.

2015-16 **Steering Committee** **and Session Chair**, *2015 IEEE International Wireless Symposium (IWS)*, March 14-16, 2016, Shanghai, China.

2015 **Technical Program Committee**,*IEEE International Conference on Ubiquitous Wireless Broadband (ICUWB)*, Oct. 4-7, 2015, Montreal, Canada.

2015 **International Advisory Committee Chair**,*2015 IEEE International Conference on Communication Problem-Solving,* Guiling, China, October 16-18, 2015.

2014-15 **Technical Program Co-Chair**, *IEEE International Conference on Numerical Electromagnetic and Multiphysics Modeling and Optimization (NEMO) for RF, Microwave, and Terahertz Applications*, Ottawa, Canada, August 11-14, 2015.

2014-15 **Technical Paper Review Sub-Committee #2 Co-Chair** and **Student Design Competition Co-Chair on Wireless Energy Harvesting**,*2015 IEEE International Microwave Symposium (IMS),* May 17-22, 2015, Phoenix, USA.

2015 **Session Chair**, *2015 Asian Pacific Conference on Antennas and Propagation (APCAP)*, June 29-July 4, 2015, Bali Island, Indonesia.

2014 **Session Chair**, *2014 Asian Pacific Conference on Antennas and Propagation (APAP)*, July 26-29, 2014, Harbin, China.

2014 **Technical Program Committee**, *2014 International Conference on Ultra Wideband (ICUWB)*, Sept. 1-3, Paris, France, 2014.

2014 **Technical Program Committee**, *2014 International Conference on Engineering Education and Research* (*ICEER*), Hamilton, Canada, Aug. 24-26, 2014.

2014 **Editorial Board**, *the 9th International Conference on the Computation in Electromagnetics (CEM 2014)*, London, UK, March 30 – April 1, 2014.

2014 **Technical Program Committee**, *2014 International Wireless Symposium (IWS),* March 24-26, 2014, Xi’an, China.

2014 **Technical Program Committee**, *16th International Symposium on Antenna Technology and Applied Electromagnetics (ANTEM)*, July 13-17, 2014, Hotel Grand Pacific, Victoria, BC, Canada.

2013-14 **Technical Paper Review Sub-Committee #2 Co-Chair** and **Student Design Competition Co-Chair on Wireless Energy Harvesting**,*2014 IEEE International Microwave Symposium (IMS),* June 1-6, 2016, Tampa Bay, USA.

2013 **Technical Program Committee**, *2013 IEEE International Microwave and RF Conference,* Dec. 14-16, 2013, New Delhi, India.

2013 **Session Chair**, *2013 International Symposium on Antennas and Propagation AP-S)*, October 23 – 25, 2013 Nanjing, China.

2011-2013 **Technical Program Committee**, *2013 IEEE International Conference on Ultra Wideband (ICUWB),* Sept. 15-18, 2013, Sydney, Australia.

2012-2013 **Technical Program Committee /Chair of Sub-committee #3**,*2013 IEEE International Microwave Symposium (IMS),* June 2-7, 2013, Seattle, USA.

2012-2012 **Session Chair**,*2012**IEEE GLOBECOM*, Anaheim, U.S.A., Dec. 3-7, 2012.

2011-2013 **Technical Program Committee /Co-Chair of Sub-committee #8: Emerging Wireless Technologies and Applications**,*2013 IEEE International Radio and Wireless Symposium (RWS),* June 20-23, 2013, Austin, Texas, USA.

2011-2012 **Technical Program Committee /Chair of Sub-committee #1: Hardware Architecture and Implementation**, *2012 IEEE International Conference on Ultra Wideband (ICUWB),* Sept. 17-20, 2012, Syracuse, NY, USA

2011-2012 **Technical Program Committee /Chair of Sub-committee #3/Workshops & Focus Sessions Organizers /Student Paper Competition Program Chair**,*2012 IEEE Intl. Microwave Symposium (IMS),* June 17-22, 2012, Montreal, Canada.

2011-2012 **Technical Program Committee**,*2012 IEEE Conference on Emerging Technologies,* Sept*.* 5-6, 2011, Islamabad, Pakistan.

2011-2011 **Technical Program Committee,** *2012 IEEE Radio & Wireless Symposium (RWS),* Jan*.* 15-19, 2012, Santa Clara, CA, USA.

2010-2011 **Local Organizing Committee,** *33rd Annual Bioelectromagnetics Society Meeting,* June 12-17, 2011, Halifax, Canada.

2010-2012 **Steering Committee,** *2012 IEEE International Microwave Symposium (IMS),* June 17-22, 2012, Montreal, Canada.

2010-2011 **Technical Program Committee /Vice Chair of Sub-committee #3/Workshops & Focus Sessions Organizers/Student Paper Competition Judge & Session Chair,** *2011 IEEE International Microwave Symposium (IMS),* June 5-10, 2010, Baltimore, Maryland, USA.

2010-2011 **Technical Program Committee**, *2011 IEEE Radio and Wireless Symposium (RWS),* Phoenix, Arizona, Jan. 15-19, 2011.

2010-2011 **Technical Program Committee**, *Ninth Annual Conference on Communication Networks and Services (CNSR2011)*, Sponsoredby IEEE Communication Society, May 2-5, 2011, Ottawa, Canada.

2010 **Technical Program Committee**, *The 9th International Symposium on Antennas, Propagation and Electromagnetic Theory* *(ISAPE)*, Nov. 29-Dec. 2, 2010, Hangzhou, China.

2009-2010 **Conference General Chair**, *The 14th International Symposium on Antenna Technology and Applied Electromagnetics (ATEM),* July 5-9, 2010, Ottawa.

2009-2010 **Technical Program Committee /Vice Chair of Sub-committee #3***/***Student Paper Competition Judge,** *2010 IEEE International Microwave Symposium (IMS),* May 23-28, 2010, Anaheim, USA.

2009-2010 **Workshop Organizer** for New Theories, Applications and Practices of Electromagnetic Field Simulators,*2010 IEEE International Microwave Symposium (IMS),* May 23-28, 2010, Anaheim, USA.

2009-2010 **Workshop Organizer** for Ultra-Wideband (UWB) Technology: The State-of-the-Art and Applications,*2010 IEEE International Microwave Symposium (IMS),* May 23-28, 2010, Anaheim, USA.

2009-2010 **Steering Committee, Technical Program Committee and Session Chair**, *The* *Eighth Annual Conference on Communication Networks and Services (CNSR2010)*, Sponsoredby IEEE Communication Society, May 11-13, 2010, Montreal, Canada.

2009-2010 **Technical Program Committee and Session Chair**, *2010 IEEE International Conference on Ultra-wide Band (ICUWB)*, Sept. 20-23, 2010, Nanjing, China.

2009-2010 **Technical Program Committee**, *2010 Asia Pacific Symposium & Exhibition on Electromagnetic Compatibility*, Beijing, Apr. 12-16, 2010.

2009-2010 **Technical Program Committee**, *2010 IEEE Radio and Wireless Symposium (RWS),* New Orleans, LA, Jan. 10-17, 2010.

2009-2010 **Technical Program Committee**, *The 26th International Review of Progress in Applied Computational Electromagnetics, April 25-29, 2010, Tampere, Finland*.

2009 **Technical Program Committee**, *2009 Asia-Pacific Microwave Conference (APMC),* Dec. 7-10, 2009, Singapore.

2009 **Session Chair**, *2009 IEEE International Conference on Ultra-wide Band (ICUWB)*, Sept. 9-11, 2009, Vancouver, Canada.

2008-2009 **Steering Committee and Technical Program Committee**, *Seventh Annual Conference on Communication Networks and Services (CNSR2009)*, Sponsoredby IEEE Communication Society, May 11-13, 2009, Moncton, Canada.

2008-2009 **Technical Program Committee**, *2009 IEEE International Microwave Symposium (IMS),* June 7-12, 2009, Boston, USA.

2008-2009 **Technical Program Committee and Session Chair**, *2009 IEEE Radio and Wireless Symposium (RWS),* January 18-22, 2009, San Diego, USA.

2007-2008 **Technical Program Committee and Session Chair**, *2008 IEEE International Microwave Symposium (IMS),* June 15-20, 2008, Atlanta, Georgia, USA.

2007-2008 **Session Organizer** for “Recent Developments and Applications with Time-domain Modeling Techniques,” *The 24th International Review of Progress in Applied Computational Electromagnetics (ACES)*, March 30-April 4, 2008, Niagara Falls, Canada.

2007-2008 **Technical Program Committee and Session Chairs**, *2008 International Symposium on* *Antennas, Propagation and EM Theory (ISAPE),* Nov. 2-6, 2008, Kunming, China.

2007-2008 **Steering Committee, Technical Program Committee and Tutorial Chair**, *Sixth Annual Conference on Communication Networks and Services (CNSR2008)*, Sponsored by IEEE Communication Society, May 5-8, 2008, Halifax, Canada.

2007 **Organizer and speaker, s**hort course in “Time-domain Electromagnetic Simulator,” *2007 IEEE International Microwave Symposium (IMS),* June 3-8, 2007, Honolulu, Hawaii.

2006-2008 **Technical Program Committee and Session Chair**, *2007 IEEE International Microwave Symposium (IMS),* June 3-8, 2007, Honolulu, Hawaii.

2006-2007 **Technical Program Committee**, *2007 IEEE International Symposium on Microwave, Antenna, Propagation and EMC Technologies for Wireless Communications,* Aug. 14-16, 2007, Hangzhou, China.

2006-2007 **Steering Committee, Technical Program Committee and Session Chair**, *Fifth Annual Conference on Communication Networks and Services (CNSR2007)*, Sponsored by IEEE Communication Society, May 14-17, 2007, Fredericton, New Brunswick, Canada.

2006-2007 **International Steering Committee**, *2007 International Workshop on Computational Electromagnetics in Time Domain,* September, Perugia, Italy.

2005-2006 **Technical Committee**, *2006 International Symposium on Antennas and Propagation (AP-S),* Nov. 1-6, 2006, Singapore.

2005-2006 **Technical Committee**, *The 7th International Symposium on Antennas, Propagation and EM Theory (ISAPE),* Oct. 26-29, 2006, Guilin, China.

2005-2006 **Technical Committee,** *Frontiers in Applied Computational Electromagnetics (FACE),* June 19-20, 2006, Victoria, Canada.

2006 **Session Co-Chair and Student Paper Competition Judge**, *2006 IEEE Intl. Microwave Symposium (IMS),* June 11-16, 2006, San Francisco,USA.

2005-2006 **Technical Program Committee**, *2006 IEEE International Microwave Symposium,* June 11-16, 2006, San Francisco, California.

*2*005-2006 **Steering Committee, Technical Program Committee and Session Chair**, *Fourth Annual Conference on Communication Networks and Services (CNSR2006)*, Sponsored by IEEE Communication Society, May 23-25, 2006, Moncton, New Brunswick, Canada.

2005-2006 **International Program Committee**, *2006 IASTED International Conference on Antennas, Radar, and Wave Propagation*, July 3-5, 2006, Banff, Alberta, Canada.

2004-2005 **Technical Program Committee**, *IEEE 2005 International Symposium on Microwave, Antenna, Propagation and EMC Technologies for Wireless Communications*, Aug. 8-12, 2005, Beijing.

2004-2005 **Technical Program Committee**, *2005 IASTED International Conference on Antennas, Radar, and Wave Propagation*, July 19-21, 2005, Banff, Alberta, Canada.

2004-2005 **International Steering Committee,** *2005 International Workshop on Computational Electromagnetics in Time Domain (CEM-TD*), Sponsored byIEEE MTT-S and AP-S, September 12-14, 2005, Atlanta, USA.

2004-2005 **Conference General Chair**, *Third Annual Conference on Communication Networks and Services (CNSR2005)*, Sponsored by IEEE Computer Society, May 16-18, 2005,Halifax, Nova Scotia, Canada.

2003-2004 **Technical Program Co-Chair**, *3rd International Conference on Computational Electromagnetics and Its Applications (ICCEA2004)*, Sponsored by IEEE AP-S,MTT-S, November 1-4, 2004, Beijing, China.

2004 **Session Organizer,** *The Applied Computational Electromagnetics Society Conference (ACES2004)*, Sponsored by IEEE Computer Soc. and IEEE Com.Soc., April 19-23, 2004, Syracuse, USA.

2003 **Session Chair**, *2003 IEEE Antennas and Propagation Symposium (AP-S)*, June 21-27, Columbus, Ohio, USA.

2003 **Organizer and Co-Chair,** *the 5th International Workshop on Computational Electromagnetics in the Time-Domain,* June 17-19, 2003, Halifax, Nova Scotia, Canada.

2001 **Technical Committee**, *The 8th International Symposium on Microwave and Optical Technology*, June 20-24, 2001, Montreal, Quebec, Canada.

2000 **Session Chair** for 2000 *Progress in Electromagnetics Research Symposium (PIERS)*, July 5-15, Boston, Massachusetts, USA.

1999 **Selection and Advance Panel** for IEEE Senior Membership.

1998 **Selected Session Co-Chair** for *1998 IEEE Antenna and Propagation International Symposium and URSI Meetings (AP-S)*, July 20-27, 1998, Atlanta, Georgia, USA.

1996 **Technical Committee** and **Selected Session Chair** for *1997 IEEE Antenna and Propagation International Symposium and URSI Meetings (AP-S)*, July 13-18, 1997, Montreal, Canada.

1997 **Organizing Committee and Student Program Co-Chair** for *IEEE/MTS Oceans’97*, October 6-9, 1997, Halifax, Canada.

1996 **Technical Committee** of the *Electrosoft’97*, May 28-30, 1996, San Manito, Italy.

1994 **Selected Session Chair** at the *1994 IEEE Antenna and Propagation International Symposium and URSI Meetings*, June 19-24, 1994, Seattle, Washington.

**National**

2013.3 McMaster Cyclic **Graduate Program Review Team**, Electrical and Computer Engineering, McMaster University, Ontario, Canada.

2012.11 **Canadian Undergraduate Accreditation Visit Team**, Engineers Canada, for the Department of Electrical and Computer Engineering, University of Alberta, Canada, November 2012.

2011-2013 **Academic Advisory Board**, Wavefront Wireless Commercialization Centre, 1450 - 1055 West Hastings St., Vancouver, BC, Canada V6E 4E9.

2004 **Advisory Committee and Session Chair**, *2004 Communication Networks and Services Research Conference (CNSR2004)*, Sponsored by IEEEComputer Soc. and Communication Soc., May 19-21, 2004, Fredericton, NewBrunswick, Canada.

1994 **Session Chair** at *1994 Canadian IEEE Conference*, Sept. 25-28, 1994, Halifax, Nova Scotia.

**PROFESSIONAL SOCIETIES:**

2013-present **Fellow** of the Engineering Institute of Canada (EIC; Inducted).

2010-present **Fellow** of IEEE; Registered **member** of IEEE Societies of (1) Microwave Theory & Techniques, (2) Antennas and Propagation, (3) Communications and (4) Electromagnetic Compatibility.

2010-present **Fellow of** the Canadian Academy of Engineering (CAE).

2011-present **Technical Committee #26** ([Wireless Energy Transfer and Conversion](http://www.mtt-archives.org/%7Emtt26/)) of **IEEE** Microwave Theory and Techniques Society; currently serving as a Vice Chair.

2010-present **Technical Committee #20** (Wireless Communications) of **IEEE** Microwave Theory and Techniques Society (Chair for 2019-2021).

2009-2011 **Founding Chair of the Chapter** of IEEE Signal Processing/Microwave Theory & Techniques, Canadian Atlantic Section.

2008-2022 **Speaker’s Bureau** of Microwave Field Theory Committee, **IEEE** Microwave Theory and Techniques Society.

2007-present **Technical Committee #15** (Microwave Field Theory) of **IEEE** Microwave Theory and Techniques Society (Chair for 2021-2022).

1995-2009 **Senior member** of IEEE; Registered **member** of IEEE Societies of (i) Microwave Theory & Techniques, (ii) Antennas and Propagation, and (iii) Communications.

1994-present Registered **Professional Engineer** in Nova Scotia (APENS).

2000-2001 **Chair** of IEEE Canada Atlantic Section and a member of the Board of Directors for IEEE Canada (2000-2001).

1994-2002 **Executive** of IEEE Atlantic Section, Halifax, Nova Scotia, Canada.

1999 **Selection and Advance Panel** for IEEE Senior Membership.

1994-1997 IEEE **Student Counselor** (or Faculty Advisor).

1990-1995 **Student and then regular member (1993)** of IEEE; Registered **member** of IEEE Society of Microwave Theory & Techniques, Antennas and Propagation, and Communications.

**RESEARCH SUPPORT (as PI or Co-PI only):**

2019-2025 **NSERC CREATE** Interdisciplinary Marine Engineering Research and Industrial Training (as a Co-PI)

2018-2020 **Canada Space Agency CubeSat Project** (Space Technology), $200,000 (as Co-PI)

2018-2023 **NSERC Discovery** (Unifying Computational Platform for Multiphysics and Multiscale Modeling) (as PI);

2012-2017 **NSERC Discovery Grant and Accelerator Grant** (Electromagnetic Platform for Emerging Technology) (as PI);

2011-2013 **Martec Contract** (Microwave Composite Materials); supported by Martec Ltd., Halifax, Nova Scotia.

2010-2013 **NSERC Strategic Project Grant** (Ultra-wideband Impulse Radio Systems); co-sponsored by Cobham Surveillance Ltd. and V1Lab Ltd. (as PI with co-applicants N. Beaulieu and H. Nie).

2009-2010 **InNova Corp. Early-Stage Commercialization Fund** (UWB Wireless Transceiver) (as PI).

2007-2012 **NSERC Discovery Grant** (novel time-domain modelling technique) (as PI).

2006-2008 **China National Natural Science Fund for Distinguished Young Scholars** **(overseas)** (electromagnetic modelling and band-gap component designs)(as PI).

2007-2009 **China National Natural Science Fund** (wireless sensor networks for bird-flu monitoring/tracking) (as co-PI).

2003-2007 **Atlantic Innovation Fund** from ACOA (Component B, Generic Smart RF Transceiver, of UNB Communication Networks and Services Project); cosponsored by Cobham Tracking and Locating Ltd. of Halifax (as PI).

2002-2007 **NSERC Discovery Grant** (time-domain electromagnetic modelling) (as PI).

2001-2002 **MetOcean Research Grant** (RFI studies in Buoy system) $8,000; supported by MetOcean Ltd. of Halifax (as PI).

1999-2003 **NSERC Strategic Project Grant** (active antennas R&D); co-sponsored by Nortel Networks Ltd., Seimac Ltd., Orion Electronics Ltd., and Comdev Ltd. (as PI).

1999-2000 **Orion-Research Contract** (planar antennas for RF tracking); supported by Orion Electronics Ltd. (as PI).

1999-2000 **Nortel-Research grant** (planar dielectric resonator filter) (as PI).

1999 **NSERC Equipment** (millimetre-wave amplifier and mixers) (as PI).

1998-1999 **InNova Corp & MT&T**, Research grant (indoor wave modelling) (as PI).

1998-1999 **Seimac Ltd**, Research grant (temperature compensating circuit) (as PI).

1998 **MISL Ltd.**, Research grant (underwater communications) (as PI).

1998-2001 **NSERC Operating** (nonlinear modelling) (as PI).

1994-1998 **NSERC Operating** (time-domain modelling) (as PI).

1998 **NSERC Equipment** (60 GHz signal generator) (with M. Cada) (as PI).

1998-1999 **Nortel-Research grant** (wideband balun study) (as PI).

1996-1999 **NSERC Strategic** (optoelectronic generation of mm waves) (with T. Manku as PI and M. Cada and Z. Chen as co-applicants) (as PI).

1997-1998 **NSERC Industrial Oriented Research** (EMI Modelling) (as PI).

1994-1997 **NSERC Collaborative** (optical and millimetre-wave multilayers) (as PI with M. Cada as co-PI).

1996-1998 **InNova Corp. and Navitrack-Research** (GPS& PCS Integrated Unit) (as co-PI).

1996-1998 **InNova Corp & MT&T Mobility-Research** (radiowave modelling) (as co-PI.

1997 **Nortel Research Grant** (EMI in RF packaging) (as PI).

1995-1997 **Nortel Research Grant** (EMI & PCB Modelling) (as PI).

1996 **Seimac Ltd.-Research Grant** (LEO System Studies) (as PI with T. Manku & I. Fair as co-PIs).

1996 **Nortel Research Grant** (CDMA analysis) (as PI).

1994 **NSERC Equipment** (high-speed workstation) (as PI with M. Cada as a co-PI).

**TRAINING OF HIGHLY QUALIFIED PERSONNEL (HQP):**

* Research engineer supervised (completed): **8 research engineers**
* Visiting scholars (completed): **9 visiting faculty members**.
* Postdoctoral fellows supervised (completed): **10 postdoctoral research fellows**
* Postgraduate students completed (completed): Nearly **100 Ph.D. and Master students.**
* Senior undergraduate supervision (completed): supervised more than **120 senior student projects**.

**[PATENTS and PUBLICATIONS](../../Publications/index.htm)**