

Mentorship Roundtable: ECCE 2022

Topic 1: Career and Research in Industry



Dr. Lihua Li is the director of global propulsion systems research lab at GM Research and Development. Li's responsibilities include directing GM global research across battery system, electric machine, power electronics, propulsion control, aero & thermal management, vehicle health management and strategic energy.

Prior to this role, Li served as propulsion systems operating director at SGMW, as well as many roles developing GM's electrified propulsion systems, including fuel-cell power converter control, motor inverter control and hybrid operating strategy leadership. Before joining GM, Li was the Principal Engineer at One-Cycle Control Inc.

Li received her PhD and master's degrees in electrical engineering from University of California, Irvine.

Li currently serves at executive management teams in USCAR and 21CTP.



Dr. V. Anand Sankaran, Director, Ford Ion Park – Battery Center of Excellence, Ford Motor Company, is a recognized leader in electrification technologies. He received his Ph.D. degree in Electrical Engineering from Univ. of South Carolina, Columbia, and MBA from Univ. of Michigan, Ann Arbor.

He began his career at the Ford Research Lab in 1991 and conducted research in high-power devices and power electronics systems for electrified vehicles and received the prestigious Henry Ford Technology Award for his work. Over his 30 years at Ford Motor Company, he has served in various capacities and successfully launched several electrified vehicles including the all-electric Mustang Mach E – Winner of “NACTOY Utility of the Year” and Hybrid F-150 PowerBoost – Winner of “NACTOY Truck of the Year”.

Anand's contributions include 22 publications in internationally recognized Conferences and Transactions, 32 US patents in automotive power electronics and electrification technologies. Anand is a Fellow of the IEEE. He has served in various capacities in the IEEE Industry Applications Society, as Co-Chairperson for the IEEE Workshop on Power Electronics in Transportation (1992-1998) and as Publication Chairman for the 2011 IEEE ECCE. Automotive News named him as one of the top 100 most influential leaders in electrification in 2011.

Mentorship Roundtable: ECCE 2022

Topic 2: Career and Research in Academia



Prasad Enjeti, received the B.E. degree from Osmania University, Hyderabad, India, in 1980, the M.Tech. degree from IIT Kanpur, Kanpur, India, in 1982, and the Ph.D. degree from Concordia University, Montreal, QC, Canada, in 1988, all in electrical engineering. Since 1988, he has been a Faculty Member with Texas A&M University, College Station, TX, USA, where he is widely acknowledged to be a Distinguished Teacher, a Scholar, and a Researcher. He currently holds the Texas Instruments (TI) Professorship in analog engineering. His primary research interests are in advancing power electronic converter designs to address complex power management issues. His recent research focus has been on innovative power electronic solutions to interface renewable energy sources to electric utility. To date, he has graduated 35 Ph.D. and 54 M.S. students. Fourteen of his Ph.D. students currently serve as faculty in institutions at home and across the world, while others have leadership positions in the industry. He along with his students has over 100 journal publications. Dr. Enjeti along with his students received numerous best paper awards from the IEEE. Among the many honors, he received the Texas A&M University Association of Former Students University Level Teaching Award in 2001 and the R. David Middlebrook Technical Achievement Award from the IEEE Power Electronics Society in 2012. He is a Fellow of IEEE.



Maryam Saeedifard received the Ph.D. degree in electrical engineering from the University of Toronto, in 2008. Since January 2014, she has been with the School of Electrical and Computer Engineering at Georgia Institute of Technology, where she is currently a Dean's professor. She is the recipient of the 8th Nagamori Awards from Nagamori Foundation in 2022, Roger Webb's Outstanding Mid-Career Faculty Award from the School of Electrical and Computer Engineering at Georgia Tech in 2021, U.S. Clean Energy Education and Empowerment (C3E) Technology Research & Innovation Award from the Department of Energy in 2021, First Place Prize Paper Award from the IEEE Transactions on Power Electronics in 2022 and 2021, IEEE Region 3 Outstanding Engineer Award in 2019, Best Transactions Paper Award of the IEEE Transactions on Industrial Electronics in 2018 and 2016, IEEE J. David Irwin Early Career Award in 2018, U.S. National Academy of Engineering, Frontiers in Engineering in Education in 2012, U.S. National Academy of Engineering, Frontiers in Engineering in 2011, Excellence in Research Award from the Office of Vice President in Research at Purdue University in 2012 and 2011 and IEEE Richard M. Bass Outstanding Young Power Electronic Engineer Award in 2010. She is an IEEE Fellow and is currently serving as a Co-Editor-in-Chief of IEEE Trans. on Power Electronics. Her research interests include power electronics and its applications in terrestrial and mobile power systems.

Mentorship Roundtable: ECCE 2022

Topic 3: Career and Research at National Labs



Dr. Andrew Woodworth is currently a Hybrid Electric Aircraft Materials Technical Lead in the Materials and Structures Division at the NASA Glenn Research Center. In this programmatic position he advises on a portfolio of work developing megawatt scale powertrain technologies for electric aircraft propulsion. Beyond programmatic duties, Dr Woodworth leads a team developing new material approaches for megawatt scale electric machines. He has also been engaged in hardening SiC based power devices to cosmic radiation. Dr. Woodworth earned a Ph.D. in Physics from West Virginia University. He has also worked as a Physical Scientist National Institute for the Occupational Safety and Health, and a Staff Scientist with the West Virginia Nano Initiative.



Prof. Fei Gao is currently the Deputy Director of the French National CNRS research institute FEMTO-ST and a Full Professor at the School of Energy and Computer science of the University of Technology of Belfort-Montbéliard (UTBM). He received from UTBM the PhD degree in renewable energy with distinguished Youth Doctor Award in 2010. His main research fields include fuel cells and their applications in transportation, multi-physical modeling and real time simulation systems. Prof. Gao is the recipient of 2020 IEEE J. David Irwin Early Career Award from IEEE Industrial Electronics Society. He is Fellow of IET and holder of the French research expertise bonus (PEDR) from the French Ministry of Higher Education and Research. He is also the Editor-in-Chief of IEEE Industrial Electronics Technology News, the Assistant Deputy Editor-in-Chief of IEEE Transactions on Transportation Electrification, and an Associate Editor of IEEE Transactions on Industrial Electronics, IEEE Transactions on Industry Applications, IEEE Transactions on Energy Conversion, and IEEE Open Journal of Industrial Electronics Society. He is nominated in 2017 as Conferences Committee Chair of IEEE Transportation Electrification Community. He serves since 2019 as Secretary of the Technical Committee on Vehicle and Transportation Systems of IEEE Power Electronics Society and was Chair of the Technical Committee on Transportation Electrification of the IEEE Industry Electronic Society between 2018-2019.

Mentorship Roundtable: ECCE 2022

Topic 4: Success in Career Path Changes



Emmanuel Agamloh received B.Sc. and M.Sc. degrees in electrical engineering from St. Petersburg State Technical University, St. Petersburg, Russia, in 1992 and 1994, respectively, and the Ph.D. degree in electrical and computer engineering from Oregon State University, Corvallis, OR, USA, in 2005. He spent several years in industry in senior engineering roles, including a 14-year role as Technical Director of the Motors and Drives Laboratory at Advanced Energy Corporation, Raleigh, North Carolina. He is currently an Associate Professor with the Department of Electrical and Computer Engineering, Baylor University, Waco, TX, USA. His research interests include electric machine design and testing, power electronics and motor drives. Application areas of his research include industrial, transportation, aerospace, oil and gas. Dr. Agamloh received two IEEE First Prize Paper Awards for his research. He was a Technical Paper Review Chair of the IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS and a past Chair of the IEEE-IAS Electric Machines Committee. He is the General Chair of the 2022 IEEE Energy Conversion Congress and Exposition (ECCE), October 9-13, Detroit, Michigan.



Bulent Sarlioglu (Fellow, IEEE) received the B.S. degree from Istanbul Technical University, İstanbul, Turkey, in 1990, the master's degree from the University of Missouri, Columbia, MO, USA, in 1992, and the Ph.D. degree from the University of Wisconsin-Madison, Madison, WI, USA, in 1999, all in electrical engineering. Since 2011, he has been a Professor with the University of Wisconsin at Madison and the Associate Director of the Wisconsin Electric Machines and Power Electronics Consortium. From 2000 to 2011, he was with Honeywell International Inc.'s Aerospace Division, Torrance, CA, USA, most recently as a Staff Systems Engineer. He is the inventor or the coinventor of 20 U.S. patents and many international patents. He has more than 200 technical papers that are published in conference proceedings and journals. His research interests include electrical machines, drives, and power electronics. Dr. Sarlioglu was elected as a 2021 Fellow of the National Academy of Inventors. He was a recipient of the Honeywell's Outstanding Engineer Award in 2011, the NSF CAREER Award in 2016, the 4th Grand Nagamori Award from Nagamori Foundation, Japan in 2018, and the IEEE PES Cyril Veinott.

Mentorship Roundtable: ECCE 2022

Topic 5: How to Become a Leader in Research



Johann W. Kolar is a Fellow of the IEEE, an International Member of the US NAE and a Full Professor and Head of the Power Electronic Systems Laboratory at the Swiss Federal Institute of Technology (ETH) Zurich. He has proposed numerous novel converter concepts incl. the Vienna Rectifier, has spearheaded the development of x-million rpm motors, and has pioneered fully automated multi-objective power electronics design procedures. He has graduated 80+ Ph.D. students, has published 1000+ research papers, 4 book chapters, and has filed 200+ patents. He has served as IEEE PELS Distinguished Lecturer from 2012 - 2016. He has received 40+ IEEE Prize Paper Awards, the 2016 IEEE William E. Newell Power Electronics Award, and 2 ETH Zurich Golden Owl Awards for excellence in teaching. The focus of his current research is on ultra-compact/efficient WBG converter systems, ANN-based design procedures, Solid-State Transformers, ultra-high speed drives, bearingless actuators, and life cycle analysis of power electronics.



Longya Xu (Fellow, IEEE) received the M.S. and Ph.D. degrees in electrical engineering from the University of Wisconsin-Madison, Madison, WI, USA, in 1986 and 1990, respectively. He joined The Ohio State University in 1990 and Co-founded the Center for High Performance Power Electronics in 2010. His research interests include design and control of novel electric machines, power electronics, and digital technology for electrified transportation and renewable energy systems. Dr. Xu was the Recipient of several IEEE prestigious awards, including the “First Prize Paper Award” 1992 from Industry Drive Committee IEEE/IAS, “Best Transaction Paper Award” 2013 and “Outstanding Achievement Award” 2014, the highest society award, from IEEE Industry Application Society. He was the 2018 Recipient of the “Nikola Tesla Award” for his outstanding contributions to the generation and utilization of electric power.

Mentorship Roundtable: ECCE 2022

Topic 6: Entrepreneurship



Dr. Ivan Celanovic is Co-founder and Chief Business Development Officer (CBDO) of Typhoon HIL Inc., and Principal Research Scientist at the MIT Institute for Soldier Nanotechnologies. His passion is developing, transitioning, and commercializing new and disruptive energy technologies with focus on future grid, e-Mobility, renewables, and energy storage. He is particularly passionate about transitioning fundamental research from a lab to commercial world. Dr. Celanovic has published over 80 journal publications, 5 patents, and two book chapters. He holds an Sc.D. degree from the Massachusetts Institute of Technology (MIT), Cambridge, an M.Sc. degree from Virginia Polytechnic Institute and State University, and a Diploma Engineer degree from the University of Novi Sad, Republic of Serbia, all in electrical engineering and computer science.

Mentorship Roundtable: ECCE 2022

Topic 7: Guidance on How to Become an IEEE Senior Member and the IEEE Fellow Nomination Procedure



Leon M. Tolbert (Fellow, IEEE) received the bachelor's, M.S., and Ph.D. degrees in electrical engineering from the Georgia Institute of Technology, Atlanta, GA, USA, in 1989, 1991, and 1999, respectively. From 1991 to 1999, he was with the Oak Ridge National Laboratory, Oak Ridge, TN, USA. In 1999, he was appointed as an Assistant Professor with the Department of Electrical and Computer Engineering, The University of Tennessee, Knoxville, TN, USA, where he is currently the Min H. Kao Professor with the Min H. Kao Department of Electrical Engineering and Computer Science. He is also a Founding Member of the NSF/DOE Engineering Research Center for Ultra-Wide-Area Resilient Electric Energy Transmission Networks (CURENT). Dr. Tolbert is a Registered Professional Engineer in the State of Tennessee. He was a recipient of the 2001 IEEE Industry Applications Society Outstanding Young Member Award and eight prize paper awards from the IEEE Industry Applications Society and IEEE Power Electronics Society. He was an Associate Editor of the IEEE Transactions on Power Electronics, from 2007 to 2013. He was the Paper Review Chair for the Industry Power Converter Committee of the IEEE Industry Applications Society, from 2014 to 2017.



Robert N. Guenther, Jr. (Fellow, IEEE) graduated in 1974 from Lehigh University, Summa Cum Laude, with a Bachelor of Science in Electrical Engineering. At Lehigh, he was a member of Eta Kappa Nu, Tau Beta Pi, and Phi Beta Kappa.

Mr. Guenther, had been with NWL for 45 years. In addition to his role as Vice President of Product Development for NWL, he has been active in the Industry Applications Society and the Power Electronics Society of the Institute of Electrical and Electronics Engineers (IEEE). Recently, he served 3 years on the PELS advisory committee and Chaired the Fellow Evaluation Committee. Currently, he is deputy editor of the Power Electronics Magazine as well as a member of the PELS Industry Advisory Board. He is a past secretary, vice-chair, and chair of the Industrial Power Converter Committee. He has co-developed and co-presented three seminars on the theory and design of magnetic components.

In recognition of his technical contributions to high voltage power conversion technology, the IEEE, in 2005, elevated Mr. Guenther to the level of IEEE Fellow. In October of 2018, the International Society for Electrostatic Precipitation awarded Mr. Guenther the Dr. Senichi Masuda award for technical contributions to the field of electrostatic precipitation.

Mentorship Roundtable: ECCE 2022

Topic 8: How to Write Award Winning IEEE Conference and Journal Papers



Joseph Olorunfemi Ojo (Life Fellow, IEEE) was born in Kabba, Nigeria. He received the bachelor's and master's degrees in electrical engineering from Ahmadu Bello University, Zaria, Nigeria, and the Ph.D. degree in electrical and computer engineering from the University of Wisconsin–Madison, Madison, WI, USA. He is currently a Professor of electrical and computer engineering with Tennessee Technological University, Cookeville, TN, USA. His research interests include electric machine analysis and drive control, switching converter technology, and modern control applications in converter-enhanced power and distributed energy generation systems. Dr. Ojo was the Chair of the Industrial Power Converter Systems Department of the IEEE Industry Application Society. He is also an Associate Editor of the IET Power Electronics and IET Electric Power Applications. He is also the current Editor-in-Chief of the IEEE Journal of Emerging and Selected Topics in Power Electronics.



Brad Lehman (Fellow, IEEE) received the Ph.D. degree in electrical engineering from the Georgia Institute of Technology, Atlanta, GA, USA, in 1992. He is currently a Professor with the Department of Electrical and Computer Engineering, Northeastern University, Boston, MA, USA. He has been listed in the inaugural edition of the book *The 300 Best Professors* (Princeton Review, 2012). Before becoming a Professor, he was the Head of Swimming and Diving Coach with the Georgia Institute of Technology. His research interests include power electronics and controls, with applications to solar energy, LED lighting, battery energy management systems, and reliability. Dr. Lehman was the recipient of the 2015 IEEE (PELS) Modeling and Control Technical Achievement Award, a 2016 IEEE Standards Medallion, the 2018 IEEE Award for Achievement in Power Electronics Standards, and the 2019 IEEE PELS Harry A. Owen, Jr., Distinguished Service Award. He was an Editor-in-Chief for the IEEE Transactions on Power Electronics from 2013 to 2018 and is currently the Vice President for products in the IEEE Power Electronics Society.

Mentorship Roundtable: ECCE 2022

Topic 9: Guidance on How to Get Involved in the Volunteer Work at IEEE



Dr. Don Tan is with Northrop Grumman Space Systems, where he served as Distinguished Engineer, Fellow, Chief Engineer-Power Conversion, program manager, department manager, and center director (acting). Don earned his PhD from Caltech and is an IEEE fellow. Well-recognized as a visionary leader in ultra-efficient power conversion and electronic energy systems, he has pioneered breakthrough innovations with high-impact industry firsts and record performances that “significantly enhance our national security.” Recent launch of JWST Space Telescope represents human’s most power telescope for a historical mission. Our suite of the world-class electronics performed flawlessly for JWST on orbit with record-breaking performances. Don has delivered 60+ keynotes/invited global presentations. He is, among many others, Chair, IEEE Fellow Committee, IEEE Board of Directors and Steering Committee Chair, IEEE PELS/PES eGrid. He was Director, IEEE Board of Directors, PELS Long Range Planning Committee Chair, Nomination Committee Chair, PELS President, Editor-in-Chief (Founding) for IEEE Journal of Emerging and Selected Topics in Power Electronics, General Conference Chair for APEC, Vice President-Operations, Guest Editor-in-Chief for IEEE Transactions on Power Electronics and IEEE Transactions on Industry Applications, Fellow Committee, Vice President-Meetings, IEEE Chair for IEEE/Google Little Box Challenge that awarded \$1M cash prize, and IEEE/DoD Working Group Chair developed IEEE/ANSI std 1515/1573. He serves on many national/international award/review/selection committees.



Christina DiMarino is an assistant professor in the Bradley Department of Electrical and Computer Engineering at Virginia Tech, and has been the assistant director of the Center for Power Electronics Systems (CPES) since 2017. She earned her B.S. degree in engineering from James Madison University in 2012, and her M.S. and Ph.D. degrees in electrical engineering from Virginia Tech in 2014 and 2018, respectively. She was a Webber Fellow from 2012 to 2015, and a Rolls-Royce Graduate Fellow from 2016 to 2017. Her research interests include power electronics packaging, medium-voltage power modules, and wide-bandgap power semiconductors. Dr. DiMarino is a Member of the IEEE Power Electronics Society (PELS), where she currently serves as a Member-at-Large for the PELS Administrative Committee, Vice Chair for the PELS Technical Committee on Power Components, Integration, and Power ICs, and is a member of the PELS Women in Engineering steering committee. She is the advisor of the PELS Student Branch Chapter at Virginia Tech, and is a member of the ECE Diversity and Inclusion Committee at Virginia Tech.