

MOHAMMAD SHAHIDEHPOUR, Fellow of IEEE, CSEE, AAAS, and NAI
Member, United States National Academy of Engineering

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SUMMARY OF ACTIVITIES



Dr. Mohammad Shahidehpour joined the Illinois Institute of Technology (IIT) in 1983, where he is presently a University Distinguished Professor. He also serves as the Galvin Chair Professor and Director of the Robert W. Galvin Center for Electricity Innovation at IIT. He is a Fellow of the IEEE, the American Association for the Advancement of Science (AAAS), the National Academy of Inventors (NAI), the Aspen Academy, and the Chinese Society for Electrical Engineering (CSEE). He is listed as a highly cited researcher on the Web of Science (ranked in the top 1% by citations demonstrating significant influence among his peers). He is also a Laureate of Khwarizmi International Award and an elected member of the US National Academy of Engineering.

Dr. Shahidehpour has been the Principal Investigator of over \$80 million grants and contracts on power system operation and control, smart grid research and development, and large-scale integration of renewable energy. His DOE Project on Perfect Power Systems has converted the entire IIT Campus to an islandable microgrid. He has initiated CSMART (Center for Smart Grid Applications, Research, and Technology) at IIT for promoting the smart grid cybersecurity research and implementation, and enhancing the resilience of networked communication and control systems in smart cities. He is a member of the SPIKE Center in the Stuart School of Business at IIT, which is facilitating the design and the implementation of affordable microgrids in impoverished nations.

Dr. Shahidehpour was the 2009 recipient of the honorary doctorate from the Polytechnic University of Bucharest. He has received numerous accolades for his technical contributions including the IEEE PES Ramakumar Family Renewable Energy Excellence Award, IEEE PES Douglas M. Staszkesky Distribution Automation Award, IEEE PES Outstanding Power Engineering Educator Award, IEEE PES T. Burke Hayes Faculty Recognition Award for his contributions to hydrokinetics, IEEE PES Outstanding Engineer Award, Edison Electric Institute's Power Engineering Educator Award, C. Holmes MacDonald Outstanding Young Electrical Engineering Professor Award, Romanian Association of Engineers' Outstanding Author Award, Illinois Technology Association's Technologist of the Year Award, Sigma Xi Society's Outstanding Senior Faculty Research Award, Electrical Engineering Department Head Association's Innovative Program Award, and IIT's Research Leadership and Excellence in Teaching Awards.

Dr. Shahidehpour has supervised and worked with over 180 graduate research students and visiting scholars in his Center. He has co-authored 6 books and over 1000 articles on electric power system operation and planning and was the recipient of 6 best paper awards for his IEEE publications. He is an IEEE PES Distinguished Lecturer and served earlier as the VP of Publications for the IEEE Power and Energy Society. He was also the founding Editor-in-Chief of the IEEE Transactions on Smart Grid and the IEEE Energy Sustainability magazine, an Editor of IEEE Transactions on Power Systems and the IEEE Electrification magazine, and continues to serve on the editorial boards of several international journals. Dr. Shahidehpour served in 1999-2000 as the National President of HKN (Electrical Engineering Honor Society) and was a member of the HKN Board of Directors for 8 years.

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ACADEMIC APPOINTMENTS

Academic Positions at Illinois Institute of Technology

- Galvin Chair Professor, Electrical and Computer Engineering Department (2023-present)
- University Distinguished Professor (2017-present)
- Professor, Stuart School of Business (courtesy appointment, 2014-present)
- Bodine Chair Professor, Electrical and Computer Engineering Department (2005-2023)
- Professor, Electrical and Computer Engineering Department (1991-2005)
- Associate Professor, Electrical and Computer Engineering Department (1986-1991)
- Assistant Professor, Electrical and Computer Engineering Department (1983-1986)

Research and Administrative Positions at Illinois Institute of Technology

- Vice Provost for Research and Dean of the (Graduate College (1995-2000)
- Dean of the Graduate College (1994-1995)
- Associate Dean of Engineering for Research and Graduate Studies (1993-1994)
- Director, CSMART (Center for Smart-Grid Applications, Research, and Technology, 2014-Present)
- Director, Robert W. Galvin Center for Electricity Innovation (2010-Present)
- Director, Electric Power and Power Electronics Center (2000-2005)
- Associate Director, Wanger Institute for Sustainable Energy Research (2010-Present)
- Associate Chairman, Electrical and Computer Engineering Department (1986-1991)
- Director of Graduate Studies, Electrical and Computer Engineering Department (1985-1986)

HONORS AND AWARDS

- Highly Cited Researcher, listed on the Web of Science (Since 2020)
- KIA Laureate (Khwarizmi International Award, Elected in 2020)
- Member, United States National Academy of Engineering (Elected in 2016)
- Fellow, Aspen Academy (Appointed in 2024)
- Fellow, Chinese Society for Electrical Engineering (CSEE, Elected in 2023))
- Fellow, National Academy of Inventors (NAI, Elected in 2018)
- Fellow, American Association for the Advancement of Science (AAAS, Elected in 2016)
- Fellow, IEEE (for contributions to security-constrained unit commitment, Elected in 2001)
- IEEE PES Ramakumar Family Renewable Energy Excellence Award (2019)
- IEEE PES Douglas M. Staszkesy Distribution Automation Award (2016)
- IEEE PES Outstanding Power Engineering Educator Award (2012)
- IEEE PES Outstanding Engineer Award, Chicago Chapter (2011)
- IEEE PES Distinguished Mentoring Award, Chicago Chapter (2009)
- IEEE PES T. Burke Hayes Faculty Recognition Award in Electric Power Engineering (2007)
- IEEE PES Best Paper Award (total of 6 in 2004, 2005, 2008, 2015)
- IEEE PES Distinguished Lecturer (2003-present, has made 150 presentations in 25 countries)
- IEEE PES Distinguished Service Award (2012, 2011, 2009, 2008, 2007, 2006, 2000, 1995)

- Outstanding Alumnus Award (50th Anniversary of the Sharif University, Iran, 2016)
- Romanian Association of Engineers (Outstanding Author Award, 2013, jointly with Prof. Eremia)
- Illinois Technology Association (Technologist of the Year Award, 2011)
- Electrical Engineering Department Head Association (Innovative Program Award, 2011)
- Illinois Tech Research Leadership Award (2010)
- Sigma Xi Society (Outstanding Senior Faculty Research Award, 2003)
- Distinguished Service Award, American Power Conference (1994)
- Edison Electric Institute's Power Engineering Educator Award (1993)
- C. Holmes MacDonald Outstanding Young Electrical Engineering Professor Award (1990)
- Best Technical Paper Award, North American Power Symposium (1999)
- Illinois Tech Excellence in Teaching Award (1990)
- Illinois Tech Outstanding HKN Chapter Advisor Award (1988)
- PI Academy Member, Oakland University, Rochester, Michigan (2018)
- Otto Monsted Professorship, Technical University of Denmark (2016)
- Judd Distinguished Lectureship, University of Utah (2016)
- iCONE Distinguished Lectureship, University of North Carolina (2016)
- Nourbakhshian Endowed Chair Professorship, University of Kashan, Iran (2015)
- UMERC Distinguished Lectureship, University of Maryland (2014)
- Honorary Doctorate, Polytechnic University of Bucharest, Romania, (2009)
- Founding Editor-in-Chief, IEEE Transactions on Smart Grid (2009-2014)
- National President of HKN (2000, Board President for the EE Honor Society)
- Listed as one of the 50 R&D Stars to Watch, Industry Week magazine (1993)

TEACHING AND RESEARCH INTERESTS

Research Interests: Power system operation and planning, modeling of cyber-physical systems, distributed system optimization, stochastic system control, computational economics, and decision analyses.

Publications and Presentations: 996 technical articles and books; 972 conference presentations, keynote speeches, and invited colloquia at workshops.

Research Supervision: 187 research scholars including 100 PhD and 31 master's thesis students, and 56 visiting professors.

Technical Courses Taught: Elements of Smart Grid, Microgrid Design and Operation, Renewable Electric Power Systems, Optimization Theory and Applications, Power System Planning, Market Operations in Power Systems, Operation and Control of Power Systems, Communication and Control in Power Systems, Stochastic Methods Applied to Power Systems, Deregulated Power Systems, Maintenance Scheduling in Power Systems, Control and Stability of Power Systems, Fault Tolerant Power Systems, Power System Reliability, Computational Methods in Power Systems, Power System Analysis, Linear Control Systems.

EDUCATION

- D.Sc. Polytechnic University of Bucharest (Honorary Doctorate), Romania, 2009
- Ph.D. Electrical Engineering Department, University of Missouri, Columbia, 1981
- M.Sc. Electrical Engineering Department, University of Missouri, Columbia, 1978
- B.Sc. Electrical Engineering Department, Sharif University of Technology, Iran, 1977 (High Honors)

RESEARCH AND DEVELOPMENT

Research Grants and Contracts

- G1. 2MC (Midwest Center for Microgrid Cybersecurity), (\$3,500,000), DOE, 2024-2026, (PI)
- G2. Resilient Solid State Power Substation (\$2,888,000), DOE, 2022-2026 (PI)
- G3. Design and Implementation of the Microgrid Loop Operation at Illinois Tech, (\$5,000,000), Illinois Department of Commerce & Economic Opportunity, 2021-2026 (PI)
- G4. Enhancing the Grid Resilience in Ice Storms by Pre-Positioning and Routing of Mobile DC De-Icing Devices (\$800,000), ComEd, 2019-2025, (PI)
- G5. Power Grid Resilience Improvement through Infrastructure Upgrades (\$600,000), ComEd, 2022-2025, (PI)
- G6. Hierarchical Operation of Networked Microgrids with Decentralized Control of Individual Microgrids (\$800,000), ComEd, 2019-2024, (PI)
- G7. Secure Monitoring and Control of Solar Power Distribution System Through Dynamic Watermarking (\$5,977,229), DOE, 2021-2024 (PI)
- G8. AC and DC Hybrid Distribution Grids with Solar Integration: Architecture, Stabilization and Cost Assessment (\$950,000), DOE, 2019-2022, (PI)
- G9. Coordinated Planning and Operation of Electric Vehicle Charging Stations with the Proliferation of Renewable Energy (\$600,000), ComEd, 2019-2023 (PI)
- G10. Reconfigurable and Resilient Operation of Network-Controlled Building Microgrids with Solar Integration (\$2,000,000), DOE, 2018-2021, (PI)
- G11. Blockchain Technology for Networked Microgrids (\$600,000), ComEd, 2019-2022, (PI)
- G12. Flywheel Energy Storage System at IIT Microgrid (\$600,000), ICECF, 2019-2020, (PI)
- G13. Acquisition of Large-Scale Real-Time Simulators for Next-Generation Smart Grids (\$500,000), 2018-2019, NSF, (Co-PI)
- G14. Sensors with Intelligent Measurement Platform and Low-cost Equipment (SIMPLE) for Monitoring and Control of Medium Voltage Distribution Systems with High Penetration of Intermittent Distributed Energy Resources, (2,000,000), DOE, 2018-2020, (PI)
- G15. Big Data Processing Infrastructure for Smart Energy Systems, (\$597,019), NSF, 2017-2020 (Co-PI)
- G16. Microgrid-Integrated Solar-Storage Technology, \$8,000,000, DOE, 2017-2019, (Co-PI)
- G17. Renewable Energy and Storage Technologies to Transform the Crown Hall Into a Green Nanogrid, (\$261,724), ICECF, 2017-2018, (PI)
- G18. Design and Implementation of a Net-Zero Islandable Hybrid AC/DC Nanogrid for Data Centers, (\$262,000), ICECF, 2017-2018, (PI)
- G19. Next-generation Attack-resilient Electricity Distribution Systems, (\$750,000), DOE, 2017-2020, (PI)
- G20. Study of IIT Microgrid Using DER-CAM (\$40,000), DOE, 2017-2018, (PI)
- G21. A Resilient and Trustworthy Cloud and Outsourcing Security Framework for Power Grid Applications, (\$150,000), DOE, 2015-2018, (PI)
- G22. AC/DC Nanogrid for the IIT Data Center, (\$250,000), ComEd, (2017-2018), (PI)
- G23. Hybrid AC/DC Microgrid at IIT, (\$222,222), DOE, 2015-2017, (PI)
- G24. Market Mechanism for Managing Uncertainties Caused by High Level of Renewable Generation,

- \$300,000, NSF, 2015-2017, (PI)
- G25. Smart Energy Storage System in a Hybrid AC/DC Microgrid, \$50,000, DCEO, 2015-2016, (PI)
 - G26. Study of IIT Microgrid Using DER-CAM, (\$40,000), DOE, 2016, (PI)
 - G27. A Resilient Self-Healing Cyber Security Framework for Power Grid, (\$200,000), DOE, 2014-2016, (PI)
 - G28. Ready, Set, Smart Communities, (\$500,000), Illinois Science and Energy Innovation Foundation, 2014-2016, (PI)
 - G29. Hybrid DC/AC Microgrid with PV and Battery Storage, (\$225,000), ICECF, 2014-2016, (PI)
 - G30. A Net-Zero Nanogrid for the IIT Data Center, (\$250,000), Willdan Energy, (2016-2017), (PI)
 - G31. Illinois State Planning Roadmap, (\$300,000), DOE, 2015-2016, (PI)
 - G32. A Nanogrid Design and Implementation for the IIT's Sporting Center, \$250,000, Willdan Energy, (2015-2016), (PI)
 - G33. Battery Development for the DC Nanogrid, (\$100,000), ICECF, 2015, (PI)
 - G34. Design of a Bilevel Model for Analyzing Coordinated Cyber-Physical Attacks on the Electric Power System Infrastructure, \$60,000, King Abdulaziz University, 2015 (Co-PI)
 - G35. A Resilient Self-Healing Cyber Security Framework for Power Grid, (\$1,200,000), DOE, 2014-2016, (Co-PI)
 - G36. DC Microgrid Research and Implementation, (\$320,000), DOE with cost share provided by ComEd, 2014, (PI)
 - G37. Research, Development, and Testing of a Master Controller with Applications to the Bronzeville Community Microgrid System, (\$1,200,000), DOE, 2014-2016, (Co-PI)
 - G38. Microgrids for Economics and Resiliency of the Grid Enterprise, \$330,000, King Abdulaziz City for Science and Technology, 2014-2016, (Co-PI)
 - G39. Wireless Networked Communication and Control System for Smart Traffic Lights in Smart Cities, (\$50,000), ComEd, 2015 (PI)
 - G40. A World-Class Smart Grid Education and Workforce Training Center, (\$12,600,000 total), DOE, 2010-2014, (PI)
 - G41. Perfect Power System at IIT, (\$12,000,000 total), DOE, 2008-2014 (PI)
 - G42. Grid Resilience Implementation, (\$1,900,000), OSIsoft Corporation, 2014 (PI)
 - G43. Wireless Sensors for Grid resilience, (20,000), ComEd, 2014 (PI)
 - G44. Security-Constrained Co-Optimization Planning Algorithm for Electricity and Natural Gas Transportation Infrastructures, \$60,000, King Abdulaziz University, 2014 (Co-PI)
 - G45. Next-Generation Expansion Planning Tool for Electric Power Systems, \$330,000, King Abdulaziz City for Science and Technology, 2014-2016, (Co-PI)
 - G46. Application of the Energy Zones Mapping Tool, \$100,000, National Association of Regulatory Utility Commissioners (NARUC), 2014 (PI)
 - G47. Integrated Model of Electric Power and Natural Gas Transmission Systems for Enhancing the Infrastructure Security in Saudi Arabia, \$60,000, King Abdulaziz University, 2013 (Co-PI)
 - G48. Long-term Load Forecasting, \$200,000, NARUC, 2014 (Co-PI)
 - G49. Long-term Electric and Natural Gas Infrastructure Requirements in the Eastern Interconnection, \$220,000, NARUC, 2013-2014 (Co-PI)
 - G50. Co-Optimization Planning of Transmission and Generation in the Eastern Interconnection, \$220,000, NARUC, 2012-2013 (Co-PI)

- G51. Illinois Smart Solar Initiative, \$220,000, Illinois Department of Commerce and Economic Opportunity, 2012-2013, (PI)
- G52. Charging Stations for Microgrid, \$289,965, Eaton Corporation, 2012 (PI)
- G53. Smart Grid Center Technology, \$411,881, S&C Electric Company, 2012 (PI)
- G54. Coordination Control of Demand Response for Enhancing the Secure and Economic Operation of Power Systems, \$300,000, National Science Foundation, 2011-2013, (Co-PI)
- G55. Battery and Charging Stations for Perfect Power System, (\$1,000,000 total), DOE, 2011-2012 (PI)
- G56. A World-Class University-Industry Consortium for Wind Energy Research, Education, and Workforce Development, (\$9,000,000 total), DOE, 2010-2013 (PI)
- G57. Illinois Smart Grid Regional Innovation Cluster, \$1,300,000, Small Business Administration (SBA), 2010-2012 (Co-PI)
- G58. Local Area Monitoring System (LAMS) for Microgrid, \$400,000, KERI, 2011-2013 (Co-PI)
- G59. Stochastic Optimization and Coordination Control of Demand Response for Enhancing the Secure and Economic Operation of Power Systems, \$300,000, NSF, 2011-2014, (Co-PI)
- G60. Power Engineering Research and Education, \$5000,000, Grainger Foundation, 2007-2012 (PI)
- G61. Wind Integration in the U.S. Eastern Interconnection, \$750,000, DOE, 2009-2010 (PI)
- G62. Coordination of Renewable Hydro-Wind Units for Enhancing the Hydrothermal Power System Operation, \$350,000, National Science Foundation, 2008-2011 (Co-PI)
- G63. Security-Constrained Optimal Coordination of Generation and Transmission Maintenance Outage Scheduling, \$300,000, National Science Foundation, 2007-2010 (Co-PI)
- G64. Electricity Supply and Demand Analysis Model, Korea Power Exchange, \$130,000, 2007-2009 (PI)
- G65. Electrical Engineering Laboratory Development, \$80,000, Elite Electronics, 2006 (PI)
- G66. Wind Energy Technology Development in Illinois, \$50,000, Invenergy Corp, 2006 (PI)
- G67. Technical and Market Integration of Small Hydro Development, \$50,000, Orenco Corp. 2006 (PI)
- G68. Electrical Engineering Laboratory Development, \$400,000, Cherry Electronics, 2006 (PI)
- G69. Electrical Engineering Laboratory Development, \$500,000, Zebra Technology, 2005-2006 (PI)
- G70. Security Constrained Maintenance Scheduling, \$1,000,000, Siemens Corporation, 2006-2008 (PI)
- G71. Unit Commitment with AC Constraints, \$700,000, Nexant Corporation, 2004-2005 (PI)
- G72. Power Engineering Research, \$500,000, Grainger Foundation, 2004 (PI)
- G73. A Novel Approach for Improving Power Electronics and Electric Drives Curriculum, \$400,000, NSF, 2003 (Co-PI)
- G74. Leader Follower for Power Market Operations, \$150,000, NSF, 2003 (Co-PI)
- G75. PV-Battery System for Transmission Management, \$120,000, DOE, 2003 (PI)
- G76. Probabilistic Risk Evaluation of Transmission Systems, \$70,000, ComEd, 2002 (PI)
- G77. Virtual Counseling in Illinois High Schools, \$50,000, Illinois Board of Higher Ed, 2001 (PI)
- G78. Power Engineering Innovations, \$500,000, Grainger Foundation, (was matched by IIT for a total of \$1,000,000), 2000-2001 (PI)
- G79. Distributed Control of Power Systems, \$250,000, ONR, 1999 (Co-PI)
- G80. Illinois State Matching Grant Program, \$43,000, Illinois Board of Higher Education, 1999 (PI)
- G81. Power Engineering Laboratory Research, \$200,000, ComEd, 1998 (PI)
- G82. Interactive Risk-Based Planning for Dynamic Contingencies, \$150,000, EPRI, 1998 (Co-PI)
- G83. A Multi-Agent Approach to Feeder Reconfiguration, \$50,000, NSF, 1998 (Co-PI)
- G84. Grainger Power Engineering Laboratory at IIT, \$200,000, Grainger Foundation, 1997 (PI)

- G85. Derivatives and Generation Business Opportunities, \$32,000, EPRI, 1997 (Co-PI)
- G86. A WWW ALN for the Utility Industry, \$30,000, Sloan Foundation, 1997
- G87. Knowbots for Internet-Based Combat Training, \$125,892, ARO, 1996 (Co-PI)
- G88. Application of Game Theory to Power Systems, \$43,500, Siemens Corporation, 1996 (PI)
- G89. Real-Time Control and Operation of Electric Power Systems, \$155,000, DOE, 1995 (PI)
- G90. A Massively Parallel Population-Based Approach to Operations Scheduling, \$72,687, NSF, 199 (PI)
- G91. Application of Fuzzy Set Theory to Security Constrained Optimal Reactive Power Control in a Multi-Area, \$49,000, NSF, 1994 (PI)
- G92. Railroad Transportation Curriculum Development for Enhancing the U.S. Infrastructure, \$180,000, NSF, 1993 (Co-PI)
- G93. Resource Scheduling and Commitment, \$25,000, Commonwealth Edison Company, 1993 (PI)
- G94. Special Machine Design, \$20,000, C.E. Neihoff Corporation, 1991 (Co-PI)
- G95. Electric Power Distribution Innovation, \$20,000, Commonwealth Edison Company, 1991 (PI)
- G96. Application of Fuzzy Logic to Power Plant Scheduling, \$7,500, TCC, 1991 (PI)
- G97. Application of Artificial Neural Networks in Multi-Area Generation Scheduling with Fuzzy Data, \$60,400, EPRI, 1990 (PI)
- G98. Scheduling of Power Interchange Between Interconnected Utilities, \$9,600, TCC, 1990 (PI)
- G99. Application of Expert Systems to Generation Control and Scheduling in Large Power Plants, \$24,000, TCC, 1989 (PI)
- G100. Expert System for Operational Scheduling and Generation Control, \$49,200, EPRI, 1988 (PI)
- G101. Application of Expert Systems to Operational Reliability Analysis in a Large Plant, \$10,000, ERIF, 1987 (PI)
- G102. Surge Protection of Underground Distribution Systems, \$22,500, Commonwealth Edison Company, 1986 (PI)

Consulting Activities

- C1. Aspen Tech, Texas, 2023-present (renewable Energy in Power Systems)
- C2. Luma Energy, Puerto Rico, 2022-present (Power System Resilience)
- C3. California Independent System Operator, 2022-present (Power Grid Optimization)
- C4. Quanta Technology, Raleigh, NC, 2022-present (Smart Grid Studies)
- C5. Global Energy Market Solutions, Naperville, IL, 2003-present (President)
- C6. Veriown Energy, Chicago, IL, 2014-present (Microgrid Design and Implementation)
- C7. Willdan Energy, Anaheim, CA, 2015-present (Microgrid Development and Implementation)
- C8. Adica, Downers Grove, IL, 2010-2014 (Illinois Power Agency Studies, Smart Homes)
- C9. American Wind Connection, CA, 2011-2013 (Offshore Wind Integration Studies, HVDC Modeling)
- C10. TransElect, Chicago, IL, 2008-2012 (Wind Power Integration Planning)
- C11. Acciona, Chicago, IL, 2008-2011 (Wind Power Integration Planning)
- C12. Korea Power Exchange, Korea, 2007-2009 (Power System Planning)
- C13. American Transmission Company, Waukesha, WI, 2006-2008 (Optimal Transmission Scheduling)
- C14. LCG Consulting, Los Altos, CA, 2007-2009 (Security-Constrained Unit Commitment for Greece)
- C15. Siemens Energy, Minneapolis, MN, 1994-2008 (Security-Constrained Unit Commitment)

- C16. New England ISO, Holyoke, MA, 2006-2007 (Optimal Transmission Maintenance Scheduling)
- C17. Nexant Corporation, San Francisco, CA, 2003-2006 (Day-ahead Commitment with AC Network)
- C18. Exelon Corporation, Chicago, IL, 1990-2002 (Transmission Risk Analysis)
- C19. KEMA Consulting, Fairfax, VA, 2001 (Evaluation of commercial software capabilities)
- C20. Open Access Technology International, Inc., 2000-present (AI-based forecasting Studies)

KEYNOTE SPEECHES AND INVITED TALKS

Keynote Speeches

- K1. International Conference on Universities and Sustainable Development Goals, Majmaah University, Riyadh, Saudi Arabia (2024)
- K2. 2024 Smart Grid Conference, Khatam University, Tehran, Iran (2024)
- K3. 2024 IEEE HONET Conference on Smart Cities, University of Doha, Qatar (2024)
- K4. International Conference on Energetics, Civil and Agricultural Engineering, Uzbekistan (2024)
- K5. 11th Conference on Renewable Energy and Distributed Generation, Yazd University, Iran (2024)
- K6. 24th IEEE Conference on Electro Information Technology, University of Wisconsin (2024)
- K7. International Symposium on Autonomous Systems, Chongqing, China (2024)
- K8. 4th IEEE Conference on Smart Grid and Renewable Energy, Texas A&M University, Qatar (2024)
- K9. 11th China International Conference on Electricity Distribution, Zhejiang University, China (2024)
- K10. International Conference on Smart Mobility and Logistics Ecosystems, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia (2024)
- K11. 31st International Conference on Electrical Engineering (ICEE), Tehran, Iran (2023)
- K12. International Conference on Energetics, Civil and Agricultural Engineering, Uzbekistan (2023)
- K13. 2023 IEEE HONET Conference on Smart Cities, Florida Atlantic University (2023)
- K14. IEEE-Iran Section and Iran Grid Management Company (IGMC) Meeting, Tehran (2023)
- K15. 3rd Macau Conference on Smart City Technologies, Macau, China (2023)
- K16. 5th Industrial Artificial Intelligence Conference, Northeastern University, Shenyang, China (2023)
- K17. 23rd IEEE Conference on Electro-information Technology, Lewis University, Romeoville (2023)
- K18. IEEE Energy Internet and Energy System Integration Conference, Chengdu, China (2022)
- K19. The State Power Economic Research Institute, Beijing, China (2022)
- K20. Renewable Energy in Smart Grid Conference, Damavand, Iran (2022)
- K21. Waubonsie Valley Model United Nations, Aurora, Illinois (2022)
- K22. CSEE JPES Forum on Energy Storage and Hydrogen, Macau (2022)
- K23. OATI Energy Conference, Minneapolis (2023)
- K24. 2022 World Automation Congress (WAC), San Antonio (2022)
- K25. International Conference on Energetics, Civil and Agricultural Engineering, Uzbekistan (2022)
- K26. 26th Electric Power Distribution Conference, Amirkabir University, Iran (2022)
- K27. 2nd International Conference on Electrical Engineering, Chamran University, Ahvaz, Iran (2021)
- K28. 2021 IEEE Sustainable Power and Energy Conference (iSPEC), Nanjing, China (2021)
- K29. International Conference on Energetics, Civil and Agricultural Engineering, Uzbekistan (2021)
- K30. International Conference on Sustainable Technology and Advanced Computing in Electrical Engineering, India (2021)
- K31. 2021 Xian Jiaotong Meeting on Carbon Neutralization (2021)

- K32. 2021 IEEE SMC (System, Man, and Cybernetics) Conference, Melbourne, Australia (2021)
- K33. World Conference on Energy Science and Technology, Turkish Academy of Science (2021)
- K34. 2020 IEEE HONET Conference on Smart Cities, Charlotte (2020)
- K35. 2020 Workshop on Future of Renewable Energy, Sharif University, Iran (2020)
- K36. CAET 2020, National Academy of Engineering of Korea, Seoul (2020)
- K37. 6th Conference on Signal and Intelligent Systems, Sajjad University, Iran (2020)
- K38. 10th IEEE Smart Grid Conference, University of Kashan (2020)
- K39. 2019 IEEE HONET Conference on Smart Cities, Charlotte (2019)
- K40. 4th National Conference on Emerging Energy Technologies, Mashhad, Iran (2019)
- K41. 9th IEEE Smart Grid Conference, Sharif University, Tehran, Iran (2019)
- K42. 3rd IEEE Energy Internet Conference, China (2019)
- K43. 16th International Conference on Clean Energy, Northern Cyprus (2018)
- K44. 20th International Middle East Power Systems Conference (MEPCON), Cairo, Egypt (2018)
- K45. 2018 IEEE Smart Grid Conference, Sanandaj, Iran (2018)
- K46. 2018 IEEE Powercon, Guangzhou, China (2018)
- K47. 2018 IEEE Energy Internet Conference, Beijing, China (2018)
- K48. 2018 IEEE HONET Conference on Smart Cities, Islamabad, Pakistan (2018)
- K49. 2018 Microgrid Symposium, Bucharest, Romania (2018)
- K50. 3rd ZIJIN International Forum on Smart Grid Protection and Control, Nanjing, China (2018)
- K51. 49th Energy Information Dissemination Program, Oklahoma State University (2018)
- K52. 26th Iran Conference on Electrical Engineering, Mashhad, Iran (2018)
- K53. World Scientific and Engineering Congress, Astana, Kazakhstan (2017)
- K54. 8th IEEE Smart Grid Conference, University of Science and Technology, Tehran, Iran (2017)
- K55. IEEE Conference on Energy Internet and Energy System Integration, Beijing (2017)
- K56. International Symposium on Smart Grid for Smart City, Guangzhou, China (2017)
- K57. IEEE International Electrical and Energy Conference, Beijing (2017)
- K58. National Electrical Energy Conversion Congress, Elazig, Turkey (2017)
- K59. International Forum on Smart Grid Protection and Control, NARI, Nanjing, China (2017)
- K60. 14th IEEE International Conference on HONET-ICT, Irbid, Jordan (2017)
- K61. 5th International Istanbul Smart Grids & Cities Congress and Fair, Turkey (2017)
- K62. Energy Institute Workshop, University of Tabriz, Iran (2017)
- K63. 3rd Renewable Energy Conference, Sajjad University, Mashhad, Iran (2017)
- K64. International Conference on New Energy and Environmental Engineering, Cairo, Egypt (2016)
- K65. 13th IEEE International Conference on HONET-ICT, Nicosia, Cyprus (2016)
- K66. IEEE Asia-Pacific Power & Energy Engineering Conference (APPEEC), Xian, China (2016)
- K69. IEEE International Conference on Smart Energy Grid Engineering, Oshawa, Canada (2015)
- K70. IEEE Smart Grid Conference, Tehran, Iran (2015)
- K71. Workshop on Power Systems and Markets, Pennsylvania State University, State College (2015)
- K72. IEEE India International Conference INDICON, New Delhi, India (2015)
- K73. IEEE International Conference on HONET-ICT, Islamabad, Pakistan (2015)
- K74. IEEE International Workshop on Integrated Power Packaging, Chicago (2015)
- K75. IEEE International Conference on Direct Current Microgrids, Atlanta (2015)
- K76. 2015 ICEE, Sharif University of Technology, Iran (2015)

- K77. IEEE Smart Grid Conference, Tehran, Iran (2014)
- K78. Australian Universities Power Engineering Conference, Perth, Australia (2014)
- K79. International Smart Grid Conference (ISGC&E 2013), Jeju Island, South Korea (2014)
- K80. Innovative Smart Grid Technologies Conference (ISGT Asia 2013), Bangalore, India (2013)
- K81. Smart Electrical Grid Technology Conference, University of Science and Technology, Iran (2012)
- K82. Advancing Wind Power in Illinois Annual Conference, Normal, Illinois (2012)
- K83. Smart Grid Roadmap, Energy Efficiency Organization, Tehran, Iran (2012)
- K84. IEEE ISGT Conference-Australia, Perth, Australia (2011)
- K85. 2011 IEEE ISGT Conference-Middle East, Jeddah, Saudi Arabia (2011)
- K86. Fourth DRPT Conference, Shandong University, China (2011)
- K87. 2011 ICEE Conference, Amirkabir University, Tehran, Iran (2011)
- K88. 2010 ISGT Conference, Chalmers University, Gothenburg, Sweden (2010)
- K89. 2010 PMAPS Conference, Singapore (2010)
- K90. Third Brazilian Symposium on Electrical Power Systems, Belem, Brazil (2010)
- K91. 41st Energy Information Dissemination Program, Oklahoma State University (2010)
- K92. 2010 ICEE, Isfahan University of Technology, Iran (2010)
- K93. 2009 Meeting of Italian Federation of Electrical Engineers, Catania (2009)
- K94. 2009 Asia T&D Conference, Seoul, South Korea (2009)
- K95. 2009 PowerTech Conference, Bucharest, Romania (2009)
- K96. 2008 Power System Conference, Tehran, Iran (2008)
- K97. Industrial & Commercial Use of Energy Conference, Cape Town, South Africa (2008)
- K98. National Power Engineering Conference, Malaysia (2003)

Sponsored Talks and Colloquia

- S1. Sharif University of Technology, Tehran, Iran (2024)
- S2. King Abdulaziz University, Saudi Arabia (2024)
- S3. Hebei University, China (2024)
- S4. King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia (2024)
- S5. Doha University for Science and Technology, Qatar, (2024)
- S6. Tsinghua University, China (2023)
- S7. OATI Energy Conference, Las Vegas (2023)
- S8. Hunan University, China (2023)
- S9. Iowa State University (2023)
- S10. Scientific Association of the Sharif University of Technology, Iran (2023)
- S11. National Academy of Sciences (Farhangestan), Iran (2022)
- S12. Florida International University (2022)
- S13. Shanghai Jiaotong University, China (2021)
- S14. University of Kashan, Iran (2021)
- S15. Stevens Institute of Technology (2020)
- S16. Electrical Engineering Chapter of Saudi Council of Engineers (2020)
- S17. University of California Santa Cruz (2020)
- S18. University of Texas San Antonio (2020)

- S19. University of Central Florida (2019)
- S20. Tabriz University, Iran (2019)
- S21. Ferdowsi University, Mashhad, Iran (2019)
- S22. King Abdulaziz University, Jeddah, Saudi Arabia (2019)
- S23. Zhejiang University, Hangzhou, China (2019)
- S24. Changsha University of Science and technology, China (2019)
- S25. China Capital Market Institute, Shenzhen, China (2019)
- S26. UOP Invitational Lecture Series, Chicago (2019)
- S27. EEI Transmission and Distribution Conference, Chicago (2019)
- S28. Alexandria University, Egypt (2018)
- S29. Louisiana State University, Baton Rouge (2018)
- S30. Kurdistan University, Sanandaj, Iran (2018)
- S31. South China University of Technology, China (2018)
- S32. Middle East Technical University, Ankara, Turkey (2018)
- S33. Polytechnic University of Bucharest, Romania (2018)
- S34. Ministry of Economy and Energy, Northern Cyprus (2018)
- S35. BSI, Shenzhen, China (2018)
- S36. Oklahoma State University (2018)
- S37. Tehran University, Iran (2018)
- S38. Oakland University, Rochester, Michigan (2018)
- S39. Sajjad University, Mashhad, Iran (2018)
- S40. Southeast University, Nanjing, China (2017)
- S41. Shahid Rajaei University, Tehran, Iran (2017)
- S42. Cleveland State University (2017)
- S43. Hunan University, Changsha, China (2017)
- S44. Washington State University (2017)
- S45. North China Electric Power University, Beijing, China (2017)
- S46. Firat University, Elazig, Turkey (2017)
- S47. Zhejiang University, Hangzhou, China (2017)
- S48. Jordan University of Science and Technology, Irbid, Jordan (2017)
- S49. Middle East Technical University, Ankara, Turkey (2017)
- S50. Guangdong University of Technology, Guangzhou, China (2017)
- S51. Kansas State University (2017)
- S52. North China Electric Power University (2017)
- S53. Xian Jiaotong University, Xian, China (2017)
- S54. University of Tehran, Tehran, Iran (2017)
- S55. Nanjing Normal University, Nanjing, China (2017)
- S56. NARI Research Center, Nanjing, China (2017)
- S57. University of Denver (2017)
- S58. King Abdulaziz University, Jeddah, Saudi Arabia (2017)
- S59. National Academy of Sciences, Tehran, Iran (2017)
- S60. University of Los Andes, Bogota, Colombia (2016)
- S61. Tsinghua University, Beijing, China (2016)

- S62. Sharif University, Iran (2016)
- S63. Tsinghua-Berkeley Shenzhen Institute, China (2016)
- S64. Cyprus International University, Nicosia, Cyprus (2016)
- S65. Hohai University, Nanjing, China (2016)
- S66. University of Tabriz, Tabriz, Iran (2016)
- S67. Technical University of Denmark, Copenhagen (2016)
- S68. Nanjing Normal University, Nanjing, China (2016)
- S69. Chongqing University, Chongqing, China (2016)
- S70. Rutgers University (2016)
- S71. Shenzhen University, Shenzhen, China (2016)
- S72. Federal Energy Regulatory Commission, Washington DC (2016)
- S73. State Grid Corporation of China, Nanjing, China (2016)
- S74. University of Tehran (2016)
- S75. University of Macau, Macau, China (2016)
- S76. Ferdowsi University, Iran (2016)
- S77. Jinan University, Zhuhai, China (2016)
- S78. Kashan University, Iran (2016)
- S79. Guangdong University of Technology, Guangzhou, China (2016)
- S80. MAPNA Corporation, Iran (2016)
- S81. Grid Management Authority, Iran (2016)
- S82. Grid Research Institute, Iran (2016)
- S83. Future University of Egypt, Cairo (2016)
- S84. King Abdulaziz University, Jeddah, Saudi Arabia (2016)
- S85. University of North Carolina, Charlotte (2016)
- S86. Illinois Commerce Commission Meeting on Smart Cities, Chicago (2016)
- S87. University of Utah (2016)
- S88. Tsinghua University, Beijing, China (2015)
- S89. National University of Science and Technology, Islamabad, Pakistan (2015)
- S90. Sharif University of Technology, Tehran, Iran (2015)
- S91. Jamia Millia Islamia, New Delhi, India (2015)
- S92. Urmia University, Urmia, Iran (2015)
- S93. King Abdulaziz University, Jeddah, Saudi Arabia (2015)
- S94. Kashan University, Kashan, Iran (2015)
- S95. Xian Jiaotong University, Xian, China (2015)
- S96. Middle East Technical University, Turkey (2015)
- S97. Workshop on Empowering Customers and Cities, Chicago (2015)
- S98. Hunan University, Changsha, China (2015)
- S99. Southeast University, Nanjing, China (2015)
- S100. Massachusetts Institute of Technology, Boston (2015)
- S101. Florida International University, Miami (2015)
- S102. Fourah Bay College, Sierra Leone, Africa (2015)
- S103. University of Kashan, Iran (2015)
- S104. Young Professionals in Energy (Burns & McDonnell Summit), Chicago (2015)

- S105. University of Tabriz, Iran (2015)
- S106. Azerbaijani Regional Power Authority, Iran (2015)
- S107. Microgrid Global Summit, California (2015)
- S108. OATI Energy Conference, Las Vegas (2014)
- S109. IEEE Smart Grid Conference, Tehran, Iran (2014)
- S110. University of Maryland, Institute for Systems Research (2014)
- S111. Southern Methodist University, Dallas (2014)
- S112. Energy and Environment Protection Hearing, Legislature of the U.S. Virgin Islands (2014)
- S113. Gas Power Symposium, Chicago (2014)
- S114. Microgrid Global Summit, Newport Beach, California (2014)
- S115. DOE Sunshot Grand Challenge Summit, Anaheim, California (2014)
- S116. Emerge Mayoral Summit, Miami (2014)
- S117. Clarkson University, Potsdam, New York (2014)
- S118. Natural Gas Power Generation Conference, Chicago (2014)
- S119. OSIssoft Summit, San Francisco (2014)
- S120. University of Denver (2014)
- S121. Denmark Technical University, Copenhagen (2013)
- S122. University of Calgary, Canada (2013)
- S123. Kerman University, Iran (2013)
- S124. Wind Powering America, Chicago (2013)
- S125. Columbia University, Earth Institute, New York (2013)
- S126. Virginia Tech, Advanced Research Institute (2013)
- S127. Tsinghua University, Beijing, China (2013)
- S128. Northwestern University, Evanston, Illinois (2013)
- S129. King Abdulaziz University, Jeddah, Saudi Arabia (2013)
- S130. University of Texas-Dallas (2013)
- S131. S&C Electric Company, Chicago, Illinois (2013)
- S132. Sharif University of Technology, Tehran, Iran (2012)
- S133. Schneider Electric Meeting on Smart Grid, Paris (2012)
- S134. Illinois Solar Energy Association, Chicago (2012)
- S135. Eaton Corporation Centennial Meeting, Chicago (2012)
- S136. University of Texas at Arlington (2012)
- S137. King Abdulaziz University, Jeddah, Saudi Arabia (2012)
- S138. Annual Meeting of Electrical Engineering Department Head Association, Austin (2012)
- S139. PJM Interconnection (2012)
- S140. Sharif University of Technology, Tehran, Iran (2011)
- S141. King Abdulaziz University, Jeddah, Saudi Arabia (2011)
- S142. K.N. Toosi University, Tehran, Iran (2011)
- S143. Cigre Conference on Electric Power System of Future, University of Bologna, Italy (2011)
- S144. Tianjin University, Tianjin, China (2011)
- S145. Annual Meeting of Electrical Engineering Department Head Association, Phoenix (2011)
- S146. University of Nevada, Reno (2011)
- S147. Illinois Science & Technology Coalition Meeting at the U.S. Capitol, Washington, DC (2011)

- S148. U.S. Department of Energy Workshop on Workforce Development, Washington, DC (2011)
- S149. National Renewable Energy Laboratory, Boulder (2011)
- S150. Achievement Rewards for College Scientists (ARC) Foundation, Chicago (2011)
- S151. Stuart School of Business, IIT, Chicago (2011)
- S152. IIT Alumni Association, Anaheim (2011)
- S153. Petroleum Institute, Abu Dhabi (2010)
- S154. Korea University, Seoul (2010)
- S155. KEPCO Electric Power Research Institute, Daejeon, South Korea (2010)
- S156. 2010 Nebraska Research and Innovation Conference, Lincoln, Nebraska (2010)
- S157. 2010 EEI Transmission and Distribution Conference, Denver (2010)
- S158. Chalmers University, Sweden (2010)
- S159. Federal University of Para, Belem, Brazil (2010)
- S160. Oklahoma State University (2010)
- S161. IEEE Chicago Section (2010)
- S162. Isfahan University of Technology, Iran (2010)
- S163. Sharif University of Technology, Iran (2010)
- S164. Nanyang Technological University, Singapore (2010)
- S165. National Seoul University, South Korea (2009)
- S166. University of Bologna, Italy (2009)
- S167. British Columbia Hydro, Canada (2009)
- S168. Polytechnic University of Bucharest, Romania (2009)
- S169. University of São Paulo, San Carlos, Brazil (2008)
- S170. Federal University do Rio Grande do Sul, Porte Alegre, Brazil (2008)
- S171. Pontifical Catholic University, Porte Alegre, Brazil (2008)
- S172. Tehran University, Iran (2008)
- S173. Sharif University of Technology, Iran (2008)
- S174. Cape Peninsula University of Technology, Cape Town South Africa (2008)
- S175. University of the Witwatersrand, Johannesburg, South Africa (2008)
- S176. Regulatory Authority for Energy, Athens, Greece, (2007)
- S177. American Transmission Company, Wisconsin (2007)
- S178. Electricity Engineers Association of New Zealand, Auckland (2007)
- S179. University of Auckland, New Zealand (2007)
- S180. Transpower New Zealand, Ltd, Wellington, New Zealand (2007)
- S181. Citadel Group, Illinois (2007)
- S182. American Transmission Company, Wisconsin (2006)
- S183. University of Waterloo, Canada (2006)
- S184. Sharif University of Technology, Iran, (2006)
- S185. Korea Power Exchange, Seoul (2006)
- S186. IEEE India Power Conference, Delhi (2006)
- S187. IEEE Qatar Section, Qatar (2006)
- S188. IEEE Dhahran Section, Saudi Arabia (2006)
- S189. King Fahd University of Petroleum and Minerals, Saudi Arabia (2006)
- S190. Polytechnic University of Tehran, Iran (2006)

- S191. Grid Management Corporation, Iran (2006)
- S192. Istanbul Technical University, Turkey (2005)
- S193. Mohandes Society, Toronto, Canada (2005)
- S194. University College Dublin (2005)
- S195. University of London, U.K. (2005)
- S196. Technical University of Bucharest, Romania (2005)
- S197. IEEE Chicago Section of PES, Chicago (2005)
- S198. IEEE Fox Valley Section, Illinois (2004)
- S199. University of Engineering and Technology, Lahore, Pakistan (2004)
- S200. Central Electricity Authority HQ, Delhi, India (2004)
- S201. Indian Institute of Technology, Madras, India (2004)
- S202. Federation of Andhra Pradesh Chambers of Commerce, Hyderabad, India (2004)
- S203. Jadavpur University, Calcutta, India (2004)
- S204. National Power Engineering Conference (keynote Speaker), Malaysia (2003)
- S205. American University of Beirut, Lebanon (2003)
- S206. Nexant Corporation, Arizona (2003)
- S207. OM Corporation, California (2003)
- S208. California ISO, Sacramento (2003)
- S209. American Transmission Company, Wisconsin (2003)
- S210. Sargent and Lundy Corporation, Illinois (2003)
- S211. Pars Corporation, California (2003)
- S212. North China Electric Power University, Beijing (2003)
- S213. Kolej Universiti Teknikal Kebangsaan Maleka, Malaysia (2003)
- S214. Exelon Corporation, Illinois (2002)
- S215. Yarmouk University, Jordan (2002)
- S216. Energy Transmission Company, Jordan (2002)
- S217. North China Electric Power University, China (2002)
- S218. Tsinghua University, China (2002)
- S219. Electric Power Research Institute, China (2002)
- S220. Tehran University, Iran (2002)
- S221. Energy Research Center, Ministry of Energy, Iran (2001)
- S222. Sharif University, Tehran, Iran (2001)
- S223. Ferdowsi University, Iran (2000)
- S224. Michigan Technological University (2000)
- S225. Southern Illinois University (2000)
- S226. OATI Corporation, Minnesota (1999)
- S227. Argonne National Laboratory, Illinois (1998)
- S228. University of Missouri-Rolla, Missouri (1997)
- S229. San Juan University, Argentina (1996)
- S230. Commonwealth Edison Company, Illinois (1995)
- S231. Marquette University, Wisconsin (1994)

EDITORIAL BOARD MEMBERSHIP

- E1. IEEE Energy Sustainability Magazine (Inaugural Editor-in-Chief, 2024-present)
- E2. Energy Internet Journal (Member of the Advisory Board, 2024)
- E3. iEnergy Journal (Member of the Advisory Board, 2021-present)
- E4. IEEE Proceedings (Associate Editor, 2021-present)
- E5. Journal of Protection and Control of Modern Power Systems (Topical Editor, 2019-present)
- E6. International Journal of Electrical Power and Energy Systems (Topical Editor, 2016-present)
- E7. Electricity Journal (Topical Editor, 2009-present)
- E8. Energy Systems Journal (Member of the Editorial Board, 2009-present)
- E9. Journal of Electrical Eng. of University of Tabriz (Member of the Editorial Board, 2016-present)
- E10. Journal of Iranian Association of Electrical and Electronics Engineers, (Member of the Editorial Board, 2023-present)
- E11. IEEE Electrification Magazine (Guest Editor, 2014, 2015, 2017, 2018, 2019, 2020, 2021, 2024)
- E12. IEEE Transactions on Sustainable Energy (Guest Associate Editor, 2023)
- E13. Frontier in Energy Research (Data-based Resilience-oriented Planning and Operation of Multi-Energy Systems, Guest Editor, 2023)
- E14. IET Generation, Transmission & Distribution (Lead Guest Editor, Operational and Structural Resilience of Power Grids with High Penetration of Renewables, 2022)
- E15. IEEE Transactions on Industry Applications (Guest Editor, 2022)
- E16. Applied Sciences (Special Issue on Sustainable Energy Systems Planning, Integration and Management, Guest Editor, 2021)
- E17. IET Smart Grid Journal (Guest Editor, Special Issues on Grid Resilience, 2019; Machine Learning in Power Systems, 2020)
- E18. Electricity Journal (Guest Editor, 2009, 2010, 2012, 2015, 2017, 2019, 2020, 2021, 2022)
- E19. IEEE Power & Energy Magazine (Guest Editor-in-Chief 2004, 2005, 2006, 2007, 2008, 2014, 2017)
- E20. Journal of Modern Power Systems and Clean Energy (Editor-in-Chief, 2018; Member of the Editorial Board, 2013-2018; Guest Editor-in-Chief, 2017)
- E21. Applied Sciences (Guest Editor, Special Issue on Sustainable Energy Systems Planning, Integration and Management, 2018)
- E22. Journal of Applied Sciences (Guest Editor for Special Issue on Sustainable Energy Systems, 2018)
- E23. CSEE (China) Journal of Power and Energy Systems (Guest Editor, 2016)
- E24. Journal of Electric Power System Research Journal (Guest Editor, 2013)
- E25. IEEE Electrification Magazine (Topical Editor, 2013-2024)
- E26. IEEE Journal of Emerging and Selected Topics in Power Electronics (Guest Associate Editor, 2020)
- E27. IEEE Transactions on Smart Grid (Founding Editor-in-Chief, 2009-2014)
- E28. IEEE Power and Energy Society (Vice President of Publications, 2008-2011)
- E29. IEEE Transactions on Power Systems (Topical Editor, 1995-2008)
- E30. IEEE Transactions on Systems, Man and Cybernetics (Topical Editor, 1997-2000)
- E31. IEEE Access Journal (Topical Editor, 2013-2015)
- E32. IEEE Power and Energy Magazine (Topical Editor, 2002-2019)
- E33. IEEE Power Engineering Letters (Topical Editor, 1997-2008)
- E34. IEEE CAP Magazine (Topical Editor, 1998-2002)
- E35. IEEE Transaction on Power Systems (Guest Editor, 2003)

- E36. IEEE Proceedings (Guest Editor, 2005, 2006)
- E37. Korean IEE Journal of Power Engineering (Topical Editor, 2004-2012)
- E38. International Journal of Emerging Electric Power (Topical Editor, 2004-2010)
- E39. Wiley Encyclopedia of Electrical and Electronics Engineering (Topical Editor, 2011-2013)
- E40. HKN Bridge Magazine (Member of the Editorial Board, 2000-2002)
- E41. Journal of Electric Power Systems Research (Member of the Editorial Board, 1997-2009)
- E42. Journal of Electric Machines and Power Systems (Member of the Editorial Board, 1996-2000)
- E43. Marcel Dekker Book Series in Power Systems (Topical Editor, 2000-2002)

GRADUATE RESEARCH STUDENTS AND VISITING SCHOLARS

(188 research scholars including 101 PhD and 31 master’s thesis students, and 56 visiting professors)

Ph.D. Students (Date of graduation is given in parenthesis)

- | | | |
|------|-----------------------|--|
| P1. | S. Bahramirad | (ongoing) |
| P2. | A. Bahrami (2023) | Machine Learning for Extreme Weather Power Outage Forecasting |
| P3. | L. Affolabi (2023) | Transactive Energy Market for Electric Vehicle Charging Stations |
| P4. | M. Farhoumandi (2023) | Blockchain for Operation of Electric Vehicle Charging Stations |
| P5. | M. Yan (2021) | Blockchain in Transactive Energy Markets with Networked Microgrids |
| P6. | Q. Zhou (2019) | Communication-based Distributed Control in Networked Microgrids |
| P7. | W. Gong (2019) | Microgrid Communication: Hardware and Software Technologies |
| P8. | H. Nasiri (2019) | Networked-Constrained DER Valuation in Distribution Networks |
| P9. | Z. Li (2017) | Secure and Resilient Operation of Cyber-Physical Power Systems |
| P10. | X. Zhang (2015) | Operation and Planning of Coordinated Natural Gas and Electricity |
| P11. | L. Che (2015) | Microgrids: Control, Operation, Coordination and Planning |
| P12. | M. Ganji (2015) | Optimal Load Scheduling in Commercial and Residential Microgrids |
| P13. | M. Khodayar (2012) | Coordination of Storage with Renewable Energy Resources |
| P14. | K. Aflaki (2012) | Integration of Sustainable Energy in the Western Interconnection |
| P15. | M. Ghamdi (2012) | Incorporating Reactive Power Market into the Day-Ahead Market |
| P16. | W. Tian (2011) | Large-Scale Wind Integration in the Eastern Interconnection |
| P17. | A. Khodaei (2010) | Transmission Switching in Power System Operation and Planning |
| P18. | S. Bahramirad (2010) | Design and Implementation of Hydrokinetic Run-of-River Turbines |
| P19. | S. Kamalinia (2010) | Expansion Planning of Fast-Response Units for Wind Integration |
| P20. | C. Liu (2010) | Interdependency of Gas and Electricity in Restructured Power Systems |
| P21. | A. Lotfju (2009) | DC Transmission System Integration for Enhancing Deliverability |
| P22. | L. Wu (2008) | Stochastic Security-Constrained Unit Commitment |
| P23. | L. Abreu (2008) | Wind Energy Coordination and Control |
| P24. | J. Roh (2008) | Power System Planning in Restructured Power Systems |
| P25. | J. Wang (2007) | Market Design Tools in Restructured Power Systems |
| P26. | H. Daneshi (2006) | Market Simulation in Electric Power Systems |
| P27. | Y. Fu (2006) | Security-Constrained Operational Planning in Power Systems |
| P28. | T. Li (2006) | Competition and Risk Management in Power Markets |
| P29. | B. Lu (2004) | SCUC with Flexible Operating Conditions |

- P30. Z. Li (2002) Asset Valuation and Risk Analysis in Electric Power Systems
- P31. H. Yamin (2001) Options for Pricing Ancillary Services in a Deregulated System
- P32. M. Alomoush (1999) Auctionable Fixed Transmission Rights for Congestion Management
- P33. E. Rezania (1998) Contingency Constrained Available Transfer Capability Calculations
- P34. J. Kavicky (1997) Application of Parallel Path in Transmission Open Access
- P35. M. Marwali (1997) Coordinated Transmission and Generation Maintenance Scheduling
- P36. H. Ma (1997) Decomposition Techniques for AC Unit Commitment
- P37. R. Ferrero (1997) Game Theory Applications to Deregulated Power System Operation
- P38. K. A. Rahman (1994) Applications of Fuzzy Sets to Power Systems Operation and Planning
- P39. C. Wang (1992) Generation Scheduling of Hydro-Thermal Systems with Uncertain Data
- P40. C. Nwankpa (1990) Stochastic Models for Power System Dynamic Stability Analysis
- P41. Z. Ouyang (1990) Artificial Intelligence for Short Term Power Generation Scheduling
- P42. N. Deeb (1989) Decomposition Approach to Optimal Reactive Power Dispatch
- P43. S. Tong (1989) Generation Scheduling in Large Scale Hydro Thermal Power Systems
- P44. N. Abbasy (1988) Optimal Set of Measurements for Estimation of System States
- P45. S. Shah (1988) Expert Systems Application to Power Network Security Analysis
- P46. J. Qiu (1987) Effect of Random Perturbations on Power Systems Reliability Evaluation
- P47. J. Banda (1985) Surge Protection in Underground Distribution Systems

Joint PhD Students with Other Universities

- P48. Y. Zhang, Zhejiang University, China (2025)
- P49. K. Zhang, Shanghai Jiaotong University (2024)
- P50. S. Wei, Southeast University (2024)
- P51. Y. Du, Taiyuan University of Technology (2023)
- P52. Z. Lu, Xi'an Jiaotong University, China (2022)
- P53. X. Chen, Xi'an Jiaotong University, China (2022)
- P54. K. Li, Xi'an Jiaotong University, China (2022)
- P55. Y. Xue, Tsinghua University (2020)
- P56. F. Moghateli, Kashan University, Iran (2020)
- P57. F. Xia, Wuhan University (2020)
- P58. C. Lin, Tsinghua University (2019)
- P59. W. Gan, Huazhong University of Science and Technology (2019)
- P60. H. Zafarani, University of Kashan (2019)
- P61. M. Shi, Huazhong University of Science and Technology (2019)
- P62. H. Guo, Tsinghua University (2019)
- P63. H. Wang, Shanghai Jiaotong University (2019)
- P64. H. Teimourzadeh, Tabriz University, Iran (2019)
- P65. Q. Wu, Shanghai Jiaotong University, China (2018)
- P66. K. Jiang, Zhejiang University, China (2018)
- P67. C. Shao, Zhejiang University, China (2018)
- P68. B. Sun, Hohai University, China (2018)
- P69. F. Qi, Zhejiang University, China (2018)
- P70. X. Xiao, Hunan University, China (2018)
- P71. H. Yang, Hunan University (2018)

- P72. Y. Zhou, Hohai University, China (2018)
- P73. D. Zhang, Hunan University, China (2018)
- P74. C. Zhang, Chongqing University, Chongqing, China (2018)
- P75. C. Liu, China Electric Power Research Institute, China (2017)
- P76. M. Yan, Huazhong University of Science and Technology, China (2017)
- P77. Y. Li, Zhejiang University, China (2017)
- P78. B. Li, Shanghai Jiaotong University (2017)
- P79. F. Shen, Hohai University, China (2017)
- P80. M. Song, Southeast University, China (2017)
- P81. C. Shao, Xian Jiaotong University, China (2016)
- P82. Y. He, Zhejiang University, China (2016)
- P83. X. Shi, Hunan University (2016)
- P84. C. Feng, Zhejiang University, China (2016)
- P85. S. Rajamand, University of Kashan (2016)
- P86. S. Teimourzadeh, University of Tehran (2016)
- P87. M. Ban, Harbin University (2016)
- P88. Y. Wang, Zhejiang University, China (2015)
- P89. M. Velásquez, Universidad de los Andes, Colombia (2016)
- P90. X. Zhong, Hunan University, China (2015)
- P91. Y. Kabiri Renani, Sharif University of Technology, Iran (2015)
- P92. Z. Li, Tsinghua University, China (2015)
- P93. X. Shen, Tsinghua University, China (2014)
- P94. G. Haddadian, Stuart School of Business, IIT (2014)
- P95. M. Parvania, Sharif University of Technology, Iran (2013)
- P96. M. Albaijat, University of California Davis, USA (2012)
- P97. P. Maghouli, Sharif University of Technology, Iran (2011)
- P98. Farrokh Aminifar, Sharif University of Technology, Iran (2010)
- P99. A. Rajabi-Ghahnavieh, Sharif University of Technology, Iran (2010)
- P100. C. Sahin, Middle East Technical University, Turkey (2009)
- P101. O. Tor, Middle East Technical University, Turkey (2005)
- P102. R. Ferrero, University of San Juan, Argentina (1996)

Visiting Faculty and Post-doctoral Scholars

- V1. Dr. C. Wang, Zhejiang University, China (2024-2025)
- V2. Dr. M. Korukonda, School of Electrical Engineering, IIT-Kanpur, India (2022-2024)
- V3. Dr. P. Mathuria, Malaviya National Institute of Technology, Rajasthan, India (2024)
- V4. Dr. M. Farhoumandi, Galvin Center for Electricity Innovation (2023-2024)
- V5. Dr. F. Delfani, Azad University, Iran (2023-2024)
- V6. Professor C. Liu, School of Electrical Engineering, Shandong University, China (2019-2020)
- V7. Professor S. Xia, North China Electric Power University, China (2019-2020)
- V8. Professor T. Ding, Xi'an Jiaotong University (2019-2020)
- V9. Professor X. Wu, Southeast University, China (2018-2019)
- V10. Professor H. Rajabi, Ferdowsi University, Iran (2018-2019)

- V11. Professor A. Rahmati, Iran University of Science and Technology (2019-2020)
- V12. Professor Z. Li, GEMS Corporation, (2017-2019), Networked Microgrids
- V13. Professor X. Wang, Shanghai Jiaotong University, China (2016-2017), Network Microgrids
- V14. Professor Y. Wang, Guangdong University of Technology, China (2017-2018), Transactive Energy
- V15. Professor X. Xu, Shanghai Jiaotong University, China (2017-2018), Microgrid Control
- V16. Professor X. Liu, Jinan University, China (2014-2015), Protection Systems for Microgrids
- V17. Professor C. Cortés, National University of Colombia (2015), Microgrids
- V18. Professor B. Zhou, Hunan University (2015), Optimization Methods
- V19. Professor R. Jiao, North China Electric Power University (2015-2016), Power System Planning
- V20. Professor J. Wei, North China Electric Power University, China (2014-2015), Smart Grid
- V21. Professor Z. Bie, Xi'an Jiaotong University, China (2014), Microgrids
- V22. Professor M. Khodayar, Southern Methodist University (2012-2014), Power System Operation
- V23. Professor Q. Yan, North China Electric Power University, China (2011-2012), Electric Vehicles
- V24. Professor K. Nikraves, Amirkabir University, Iran (2011-2012), Power System Stability
- V25. Professor K. Li, Hebei University of Technology, China (2011-2012), Microgrid Design
- V26. Dr. W. Tian, Willdan Corporation (2011-2016), Large Scale Wind Integration
- V27. Professor A. Khodaei, University of Denver (2011-2012), Power System Planning
- V28. Professor H. Wu, Kansas State University (2011-2013), Demand Response Studies
- V29. Professor J. Shu, China Electric Power University, China (2009-2010): Power System Planning
- V30. Professor Z. Tan, North China Electric Power University, (2008-2009): Market Economics
- V31. Professor M. Pantos, University of Ljubljana, Slovenia (2008-2009): Power System Planning
- V32. Professor Y. Song, University of Liverpool, England (2008-2009): Computational Intelligence
- V33. Professor J. Liu, Sichuan University, China (2008-2009): Market Operation in China
- V34. Professor T. Hahn, Kyungwon University, Korea (2008-2010): Market Operation in Korea
- V35. Dr. C. Sahin, Middle East Technical University, Turkey (2008-2009): Energy Interdependencies
- V36. Professor F. Aminifar, Tehran University, Iran (2009-2010): Reliability Evaluation of PMUs
- V37. Professor J. Choi, Gyeongsang National University, Korea (2007-2009): Power System Planning
- V38. Professor J. Mantovani, Sao Paulo State University, Brazil (2006-2007): Power System Operation
- V39. Professor Y. Fu, Mississippi State University, (2006-2007) Outage Management in Markets
- V40. Dr. T. Li, Siemens Corporation, (2006-2007): Strategic Bidding in Electricity Markets
- V41. Dr. O. Tor, Middle East Technical University, Turkey (2004-2005): Restructuring for Turkey
- V42. Professor H. Kim, Pusan University, Korea (2004-2006): Simultaneous Auction of Energy
- V43. Dr. Z. Li, GEMS Corporation, (2002-2003): Probabilistic Transmission Risk Analysis
- V44. Professor Y. Wang, Tianjin University, China (1999-2003): Distributed Energy Management Systems
- V45. Professor H. Shانهchi, Ferdowsi University, Iran, (2001-2002): Distributed Generation Technologies
- V46. Professor M. Alomoush, Yarmouk University, Jordan, (1999-2000): Supervisory Control of System
- V47. Dr. M. Marwali, ABB Corporation, (1998): Reliability-Centered Maintenance Scheduling
- V48. Dr. X. Wang, Harbin Institute of Technology, China (1995-1996): Power Systems Voltage Stability
- V49. Dr. R. Ferrero, University of San Juan, Argentina (1994-1996): Game Theory Applications
- V50. Professor S. Zhu, Tsinghua University, China (1994-1995): Power Plants Control and Operation
- V51. Professor X. Bai, EPRI, China (1994-1995): Hydro-thermal Power Systems
- V52. Dr. K. Abdul-Rahman, Siemens (1993-1994): Energy Economics
- V53. Dr. I. Roytelman, Kiev Research Institute, (1992-1993): Power Distribution Automation

- V54. Professor M. Pourkermani, Sharif University of Technology (1991-1992): Special Purpose Machines
 V55. Dr. S. Li, Research Institute of Electric Light Source, China (1990-1991): SCADA in Power Systems
 V56. Professor S. Sun, Tsinghua University, China (1986-1989): Power Systems Planning

M.S. Thesis Students (Date of graduation is given in parenthesis)

- M1. P. Burgess (2022) Intelligent Street lighting and Remote power units As Case Studies for Cities to Decarbonize
 M2. S. Adeyemi (2020) Blockchain for Peer to Peer Transactions in Power Distribution Systems
 M3. R. Al-Hassan (2016) Intelligent Traffic Management
 M4. H. Al-Hassan (2015) Stochastic Modeling of Day-ahead Scheduling
 M5. L. Che (2013) Microgrid Control
 M6. S. Ahmadinejad (2013) Wind Energy Integration
 M7. K. Vyas (2013) Assessment of Microgrids for Developed and Developing Countries
 M8. J. Camprubi (2011) Sustainable Stadiums
 M9. H. Noohi (2010) Wind Integration in the Eastern Interconnection
 M10. B. Noohi (2009) Cyber Security issues in Power Systems
 M11. S. Duggirala (2006) Transmission Planning in Restructured Power Systems
 M12. A. Khan (2006) Wind Speed Forecasting using Wavelets
 M13. V. Ellia (2005) Agents in Electric Power System Operation
 M14. D. Patil (2005) Design of Batteries for Electric Cars
 M15. J. Bui (2005) Hydrogen Economy
 M16. M. Phadke (2004) Equivalent Energy Function Approach to Photovoltaic-Utility Systems
 M17. A. Koshi (2004) Superconductors in Electric Power Systems
 M18. N. Sriram (2004) Biomass in Electric Power Systems
 M19. A. Joseph (2004) Battery and Storage in Electric Power Systems
 M20. S. Kullanthasamy (2004) Asset Management in Power Systems
 M21. S. Sood, (2004) Power Generation at Brownfields
 M22. S. Sheth (2004) Geothermal Energy in Power Systems
 M23. R. Pegallapati (2004) Small Hydro as Green Power
 M24. P. Ganesan (2003) Transmission Management in Restructured Power Systems
 M23. G. Ponnuvel (2003) Impact of Losses on Transmission Pricing
 M24. A. Eybalin (2002) Restructuring Models for European Countries
 M25. M. Albaijat (1999) Optimal Power Flow Calculation with Evolutionary Programming
 M26. N. Maricar (1998) Object Oriented Programming Approach to Power System Visualization
 M27. D. Mardijino (1998) Application of Artificial Neural Networks to Short-Term Load Forecasting
 M28. M. Marwali (1994) Fuzzy Least Median Square Estimator in Power Systems
 M29. M. Yesiloglu (1993) Adaptive Control of Nonlinear Systems by Artificial Neural Networks
 M30. K. Labudda (1992) Fuzzy Linear Programming Approach to Power System State Estimation
 M31. J. Qiu (1985) A New Approach to Power Loss Minimization

TECHNICAL PUBLICATIONS

(This list represents 1014 technical publications, including 19 books and book chapters, 746 journal papers, as well as 249 conference papers, journal correspondence, and technical reports)

Books and Book Chapters

- B1. M. **Shahidehpour** and M. Marwali, Maintenance Scheduling in Restructured Power Systems, Springer, May 2000 (translated into Farsi)
- B2. M. **Shahidehpour** and M. Alomoush, Restructured Electrical Power Systems, Taylor and Francis, June 2001
- B3. M. **Shahidehpour**, H. Yamin and Z. Li, Market Operations in Electric Power Systems, John Wiley and Sons, March 2002 (translated into Chinese and Farsi)
- B4. M. **Shahidehpour** and Y. Wang, Communication and Control of Electric Power Systems, John Wiley and Sons, June 2003
- B5. M. Eremia and M. **Shahidehpour**, Handbook of Electrical Power System Dynamics: Modeling, Stability, and Control, John Wiley and Sons, 2013 (Translated into Romanian and Chinese)
- B6. G. Gharepetian, B. Zaker, M. **Shahidehpour**, Smart Grids and Microgrids, Second Edition, Amir Kabir University Press, 2019
- B7. A. Anvari-Moghaddam, B. Mohammadi-Ivatloo, S. Asadi, K. Larsen, M. **Shahidehpour**, Sustainable Energy Systems Planning, Integration, and management, MDPI, 2019
- B8. Vasundhara Mahajan, Anandita Chowdhury, Sri Niwas Singh, and M. **Shahidehpour**, Emerging Technologies in Electrical Engineering for Reliable Green Intelligence, Springer, 2023
- B9. Z. Li and M. **Shahidehpour**, Resilience Indices Using Markov Modeling and Monte Carlo Simulation, chapter in Resiliency of Power Distribution Systems, John Wiley and Sons, 2023
- B10. L. Wu and M. **Shahidehpour**, "Security-Constrained Unit Commitment With Uncertainties," chapter in Power Grid Operation in a Market Environment: Economic Efficiency and Risk Mitigation, John Wiley and Sons, 2016
- B11. F. Ahmad, M. S. Alam, M. **Shahidehpour**, A. Awasthy, R. Suri, "Power Exchange and its Significance to Enhance the Deployment of Smart Microgrids in India and Key Barriers in its Adoption", Chapter in Lecture Notes in Electrical Engineering, Springer, 2018
- B12. M. **Shahidehpour** and H. Wu, "Hourly Demand Response as an Alternative to Flexible Ramping of Thermal Units in Stochastic Operation of Electric Power Systems with Non-Dispatchable Energy Sources," chapter in Handbook of Clean Energy Systems, John Wiley and sons, 2015
- B13. M. **Shahidehpour** and M. Alomoush, "Decision Making in a Deregulated Power Environment Based on Fuzzy Sets," book chapter in AI Applications to Power Systems, Kluwer Publishers, 1999
- B14. M. **Shahidehpour** and M. Marwali, "Power Transmission Network," chapter in Wiley Encyclopedia of Electrical and Electronics Engineers, 1999
- B15. M. **Shahidehpour** and R. Ferrero, "Electricity Supply Industry," chapter in Wiley Encyclopedia of Electrical and Electronics Engineers, 1999
- B16. S. Borlase, M. Ganji, M. **Shahidehpour**, W. Tian, P. Burgess, S. Borlase, R. Hourdouillie, and A. Zheng, "Microgrids," Chapter in Smart Grids: Advanced Technologies and Solutions, Second Edition, Taylor and Francis, 2021

- B17. S. Borlase, M. Ganji, M. **Shahidehpour**, M. Wells, J. Denver, K. Harkness, A. Grier, D. Kushner, M. Nicknam, D. Beckel, E. Lambert, P. Doherty, G. Wong, and P. Burgess, Smart Cities, Chapter in Smart Grids: Advanced Technologies and Solutions, Second Edition, Taylor and Francis, 2021
- B18. Z. Li, X. Han, M. Farhoumandi, and M. **Shahidehpour**, “Microgrid Clustering for Enhancing the Grid Resilience in Extreme Conditions,” Chapter in Power Grid Resilience Theory and Applications, 2024
- B19. L. Che, J. Zhang, M. Farhoumandi, and M. **Shahidehpour**, “Mobile Microgrids for Enhancing the Electricity Grid Resilience in Constrained Operations of Electricity and Transportation Networks,” Chapter in Power Grid Resilience Theory and Applications, 2024

Patent

P. Ristanovic, M. Bjelogric, J. Frame, M. Aganagic, and M. **Shahidehpour**, “Exchange, Scheduling and Control System for Electrical Power,” Patent #7343360, Issued on March 11, 2008.

Journal Publications

- J1. C. Wang, Y. Xu, K. Pang, M. **Shahidehpour**, Q. Wang, G. Wang, and F. Wen, “Imposing Fine-Grained Synthetic Frequency Response Rate Constraints for IBR-Rich Distribution System Restoration,” IEEE Transactions on Smart Grid, to be published in 2025
- J2. C. Li, Y. Li, Y. Cao, Z. Zhang, J. Wan and M. **Shahidehpour**, “Anomaly Detection of Cross-Operational State Streaming Data in an Edge Computing Platform,” IEEE Transactions on Industry Applications, to be published in 2025
- J3. C. Mu, T. Ding, Y. Huang, S. Zhu, P. Siano, M. **Shahidehpour**, and X. Shen, “Distributed Collaboration Method for Peer-to-Peer Transactions in Reconfigurable Distribution Network,” IEEE Transactions on Power Systems, to be published in 2025
- J4. Y. Xiao, T. Ding, C. Mu, K. Pan, X. Zhang, and M. **Shahidehpour**, “Convex Hull for Self-Scheduling Energy-Intensive Enterprises with Demand Response Regulations,” IEEE Transactions on Power Systems, to be published in 2025
- J5. Y. Guan, W. Ma, L. Che, and M. **Shahidehpour**, “Model-based Safe Reinforcement Learning for Active Distribution Network Scheduling,” IEEE Transactions on Smart Grid, to be published in 2025
- J6. E. Barkam, H. Saber, M. Moeini-Aghtaie, M. Ehsan, and M. **Shahidehpour**, “Minimax Regret Robust Co-Planning of Transmission and Energy Storage Systems with Mixed Integer Recourse,” IEEE Transactions on Sustainable Energy, to be published in 2025
- J7. H. Liu, H.Liu, Q. Hu, X. Zhang, H. Sun, and M. **Shahidehpour**, “SecureDec: A Decentralized Scheduling Pipeline with Federated Learning and Efficient Encryption for Electricity-Gas Coupled Systems,” IEEE Transactions on Smart Grid, to be published in 2025
- J8. C. Mu, T. Ding, S. Wang, Y. Yuan, W. Jia, and M. **Shahidehpour**, “MISOCP Model for Reactive Power Optimization With Nonuniform Voltage Regulators in Unbalanced Three-Phase Active Distribution Networks,” IEEE Transactions on Automation Science and Engineering, to be published in 2025
- J9. F. Shen, Y. Cao, M. **Shahidehpour**, X. Xu, C. Wang, J. Wang and S. Zhai, “Predict-and-Optimize Model for Day-Ahead Inertia Prediction Using Distributionally Robust Unit Commitment with Renewable Energy Sources,” IEEE Transactions on Power Systems, to be published in 2025
- J10. Y. Gao, X. Xu, Z. Yan, M. **Shahidehpour**, B. Yang, and X. Guan, “Modeling, Prediction and Risk Management of Distribution System Voltages with Non-Gaussian Probability Distributions,” CSEE Journal of Power and Energy Systems, to be published in 2025

- J11. C. Mu, T. Ding, Z. Han, X. Shen, J. Xiong, and M. **Shahidehpour**, "Automatic Switch IoT Terminal for Elastic Block-Based Peer-to-Peer Energy Trading in Behind-the-Meter Systems," IEEE Transactions on Consumer Electronics, to be published in 2025
- J12. Y. Jiang and M. **Shahidehpour**, "Towards Numerically Unified Modeling of Integrated Electricity and Heat Systems: A Generalized Per-Unit System Approach," Electric Power System Research, to be published in 2025
- J13. Z. Li, X. Han, M. **Shahidehpour**, P. Ju, and Q. Yu, "Analyzing the Resilience of Active Distribution Networks to Hazardous Weather Considering Cyber-Physical Interdependencies," Engineering (Chinese Academy of Engineering), to be published in 2025
- J14. P. Han, X. Xu, Z. Yan, M. **Shahidehpour**, Z. Tan, H. Wang, and G. Li, "Robust Scheduling of Integrated Electricity-heat-hydrogen System Considering Bidirectional Heat Exchange Between Alkaline Electrolyzers and District Heating Networks," Modern Power Systems and Clean Energy, DOI: 10.35833/MPCE.2024.000810, to be published in 2025
- J15. C. Wang, W. Lin, G. Wang, M. **Shahidehpour**, Z. Liang, W. Zhang, and C. Y. Chung, "Frequency-Constrained Optimal Restoration Scheduling in Active Distribution Networks with Dynamic Boundaries for Networked Microgrids," IEEE Transactions on Power Systems, to be published in 2025
- J16. K. Li, C. Shao, X. Huang, M. **Shahidehpour**, and X. Wang, "Day-Ahead Charging Capacity Market for Power Distribution Network with Electric Vehicle Charging Stations," IEEE Transactions on Power Systems, to be published in 2025
- J17. J. Wang, D. Xu, Y. Li, M. **Shahidehpour**, and T. Yang, "Transformer-based Probabilistic Demand Forecasting with Adaptive Online Learning," Electric Power System Research, to be published in 2025, <https://doi.org/10.1016/j.epsr.2024.111255>
- J18. Y. Guo, Y. Li, S. Zhou, Z. Zhang, Z. Li, and M. **Shahidehpour**, "A Data-Driven Three-Stage Adaptive Pattern Mining Approach for Multi-Energy Loads," IEEE Transactions on Knowledge and Data Engineering, to be published in 2025
- J19. X. Long, Z. Ni, Y. Li, T. Yang, Z. Zeng, M. **Shahidehpour**, and T. Chai, "Industry Demand Response in Dispatch Strategy for High-Proportion Renewable Energy Power System," Journal of Automation and Intelligence, to be published in 2025, <https://doi.org/10.1016/j.jai.2024.08.002>
- J20. X. Zhang, Y. Li, Y. Wang, J. Li, Y. Zhang, Y. Cao, and M. **Shahidehpour**, "Carbon-Oriented Optimal Operation Strategy for Distribution Network with Multiple Integrated Energy Microgrids based on Double-Layer Game," International Journal of Electrical Power and Energy Systems, <https://doi.org/10.1016/j.ijepes.2024.110075>, to be published in 2025
- J21. P. Lu, H. Lan a, Q. Yuan, Z. Jiang, S. Cao a, J. Ding a, Q. Wei, J. Fan b, Q. Cai b, N. Zhang, L. Ye, K. Li, M. **Shahidehpour**, and P. Siano, "A Bi-level Solution Strategy based on Distributed Proximal Policy Optimization for Transmission and Distribution Network Dispatch with EVs and Variable Energy," Applied Energy, <https://doi.org/10.1016/j.apenergy.2025.125405>, to be published in 2025
- J22. Z. Shuai, L. Wu, Y. Li, and M. **Shahidehpour**, "Protection Scheme Based on Energy Value and Morphological Feature of Incipient Fault Current for Inverter Dominated Islanded Microgrids," IEEE Transactions on Smart Grid, to be published in 2025
- J23. S. Zhou, Y. Li, Y. Guo, X. Yang, and M. **Shahidehpour**, "A Load Forecasting Framework Considering Hybrid Ensemble Deep Learning with Two-Stage Load Decomposition," IEEE Transactions on Industry Applications, to be published in 2025
- J24. J. Zhao, Z. Wu, H. Long, H. Sun, X. Wu, C. Chan, and M. **Shahidehpour**, "Optimal Operation Control Strategies for Active Distribution Networks Under Multiple States: A Systematic Review," Journal of Modern Power System and Clean Energy, to be published in 2025

- J25. K. Li, C. Shao, M. **Shahidehpour**, and X. Wang, Life Fellow, IEEE, "A Capacity-Based Regulation Method for Coordinating Electric Vehicle Charging Flows in Coupled Distribution and Transportation Networks," IEEE Transactions on Smart Grid, to be published in 2025
- J26. R. Zeng, Y. Cao, Y. Li, S. Hu, X. Shao, L. Xie, L. Hou, L. Zhao, and M. **Shahidehpour**, "A General Real-Time Cyberattack Risk Assessment Method for Distribution Network Involving the Influence of Feeder Automation System," IEEE Transactions on Smart Grid, to be published in 2025
- J27. X. Wei, J. Lei, J. Shi, M. **Shahidehpour**, S. Gao, H. Tao, "A Reasoning Approach Based on Pattern Graph for Analyzing the Risk of Power Outage Propagation," IEEE Transactions on Power Systems, to be published in 2025
- J28. Y. Wang, T. Zhu, T. Chen, M. **Shahidehpour**, Q. Xu, "Chain Rule for Extracting Resilience Procurement Costs from Locational Marginal Prices," CSEE Journal of Power and Energy Systems, to be published in 2025
- J29. M. Song, X. Xu, C. Gao, Z. Yan, M. **Shahidehpour**, "Two-Stage Stochastic Scheduling of Virtual Power Plant based on Transactive Control," CSEE Journal of Power and Energy Systems, to be published in 2025
- J30. M. Korukonda, M. **Shahidehpour**, and L. Xie, "Cyber Resilience in Virtual Power Plants: A multiscale multilayer approach toward secure energy management," IEEE Electrification Magazine, Vol. 13, No. 1, pp. 54-65, Mar. 2025
- J31. J. Li, X. Xu, H. Wang, Z. Yan, M. **Shahidehpour**, and B. Yang, "Coordinated Multitask Scheduling of Electric Buses in Postdisaster Transportation-Power Distribution Systems," IEEE Transactions on Transportation Electrification, Vol. 11, No. 2, pp. 6291-6304, Apr. 2025
- J32. C. Mu, T. Ding, Y. Yuan, B. Zhang, Z. Han, and M. **Shahidehpour**, "Decentralized and Private Solution for the Optimal Dispatch of Integrated Wind Farms with Shared Energy Storage Systems," IEEE Transactions on Power Systems, Vol. 40, No. 2, pp. 1452-1464, Mar. 2025
- J33. F. Jin, C. Shao, K. Li, X. Jin, M. **Shahidehpour**, and X. Wang, "User Equilibrium Analysis of Aggregative Game in Demand Response," IEEE Transactions on Power Systems, Vol. 40, No. 2, pp. 1903-1915, Mar. 2025
- J34. Y. Gao, X. Xu, Z. Yan, and M. **Shahidehpour**, "Equitable Active-Reactive Power Envelopes for Distributed Energy Resources in Power Distribution Systems," IEEE Transactions on Smart Grid, Vol. 16, No. 2, pp. 1480-1494, Mar. 2025
- J35. G. Wang, Y. Huang, C. Wang, Member, M. **Shahidehpour**, and Q. Hao, "Voltage-Adaptive Strategy for Transient Stability Enhancement of Power Systems with 100% Renewable Energy," IEEE Transactions on Automation Science and Engineering, pp. 1364-1376, Vol. 22, 2025
- J36. G. Wang, Y. Huang, C. Wang, and M. **Shahidehpour**, "Multimodal Unified Control Method Using the Lie Derivative and Lyapunov Theory for Enhancing the Dynamic Stability of Power Systems with 100% Renewable Energy," IEEE Transactions on Automation Science and Engineering, Vol. 22, pp. 3182-3195, 2025
- J37. H. Xiong, M. **Shahidehpour**, Y. Shi, F. Luo, and C. Guo, "Multiperiod Planning for Renewable Electric Vehicle Charging Stations in Coordinated Power Distribution and Transportation Networks with Non-anticipativity Constraints," IEEE Transactions on Transportation Electrification, Vol. 11, No. 1, pp. 3757-3772, Feb. 2025
- J38. Y. Li, Y. Ma, Y. Li, S. Li, Z. Chen, and M. **Shahidehpour**, "Enhancing Cyber-Resilience in Integrated Energy System Scheduling with Demand Response using Deep Reinforcement Learning," Applied Energy, Vol. 379, Feb. 2025, <https://doi.org/10.1016/j.apenergy.2024.124831>

- J39. S. Xia, H. Wu, G. Song, T. Wu, Y. Chen, and M. **Shahidehpour**, "Photovoltaic Power Generation and Energy Storage Capacity Cooperative Planning Method for Rail Transit Self-consistent Energy Systems Considering the Impact of DoD," IEEE Transactions on Smart Grid, Vol. 16, No. 1, pp. 665-677, Jan. 2025
- J40. S. Xia, Y. Wang, H. Li, G. Li, Z. Zhu, X. Lu, and M. **Shahidehpour**, "A Foresight-Seeing and Transferable Optimization Method for Synergic Operation of Multiple Flexible Resources in Active Distribution Network," IEEE Transactions on Industry Applications, Vol. 61, No. 1, pp. 1592-1603, Jan. 2025
- J41. K. Wang, Y. Xue, M. **Shahidehpour**, X. Chang, Z. Li, Y. Zhou, and H. Sun, "Resilience-Oriented Two-Stage Restoration Considering Coordinated Maintenance and Reconfiguration in Integrated Power Distribution and Heating Systems," IEEE Transactions on Sustainable Energy, Vol. 16, No. 1, pp. 124-137, Jan. 2025
- J42. H. Xiong, Y. Shi, M. **Shahidehpour**, C. Guo, and Y. Zhou, "Multi-Stage Robust Optimization of Real-Time Dynamic Dispatch with Fast-Acting Units in Resilient Power Systems," IEEE Transactions on Power Systems, Vol. 40, No. 1, pp. 18-30, Jan. 2025
- J43. Y. Li, J. Gao, Y. Li, C. Chen, S. Li, M. **Shahidehpour**, and Z. Chen, "Physical Informed-Inspired Deep Reinforcement Learning Based Bi-Level Programming for Microgrid Scheduling," IEEE Transactions on Industry Applications, Vol. 61, No. 1, pp. 1488-1500, Jan. 2025
- J44. X. Han, Z. Li, P. Ju, and M. **Shahidehpour**, "Privacy-Preserving Outsourced Computation of Collaborative Operational Decisions among Microgrids in an Active Distribution Network," IEEE Transactions on Power Systems, Vol. 40, No. 1, pp. 850-865, Jan. 2025
- J45. J. Lin, S. Hu, Y. Li, J. Zhang, S. Wang, Y. Guo, and M. **Shahidehpour**, "A Planning and Control-Integrated Design Approach for Railway Power Flow Controller With Hybrid Energy Storage System," IEEE Transactions on Intelligent Transportation Systems, Vol. 26, No.1, pp. 1257-1272, Jan. 2025
- J46. Y. Du, Y. Xue, M. **Shahidehpour**, W. Wu, X. Chang, Z. Li, Member, IEEE, and H. Sun, "A Globally Optimal Distributed Solution for the Operation of Integrated Electric and Heating Systems," Transactions on Sustainable Energy, Vol. 16, No. 1, pp. 336-349, Jan. 2025
- J47. Y. Kabiri-Renani, A. Arjomandi-Nezhad, Mahmud Fotuhi-Firuzabad, and M. **Shahidehpour**, "Transactive-Based Day-Ahead Electric Vehicles Charging Scheduling," IEEE Transactions on Transportation Electrification, Vol. 10, No. 4, pp. 8235-8245, Dec. 2024
- J48. X. Chen, X. Wang, M. **Shahidehpour**, "Risk-aware Hierarchical Coordination of Peer-to-Peer Energy Trading for Electric Vehicle Charging Stations in Constrained Power Distribution and Urban Transportation Networks under Uncertainties," IEEE Transactions on Transportation Electrification, Vol. 10, No. 4, pp. 9264-9280, Dec. 2024
- J49. H. Saber, H. Ranjbar, E. Hajipour, and M. **Shahidehpour**, "Two-Stage Coordination Scheme for Multiple EV Charging Stations Connected to an Exclusive DC Feeder Considering Grid-Tie Converter Limitation," IEEE Transactions on Transportation Electrification, Vol. 10, No. 4, pp. 8213-8223, Dec. 2024
- J50. Z. Lu, L. Yan, J. Wang, C. Kang, M. **Shahidehpour**, and Z. Li, "A Market-Clearing-based Sensitivity Model for Locational Marginal and Average Carbon Emission," IEEE Transactions on Energy Markets, Policy and Regulation, Vol. 2, No. 4, pp. 579-582, Dec. 2024
- J51. M. Qu, T. Ding, C. Mu, Y. Sun, P. Siano, and M. **Shahidehpour**, "Adjustable Robust Low-Carbon Unit Commitment with Nonanticipativity by Linear Programming," IEEE Transactions on Network Science and Engineering, Vol. 11, No. 6, pp. 5487-5502, Nov. 2024

- J52. H. Liang, Z. Li, M. **Shahidehpour**, N. Tian, Y. Jiang, J. Zheng, and J. Zhu, "Deriving Sufficient Conditions for Exact Relaxation of Complementarity Constraints in Optimization Problems with Energy Storage," IEEE Transactions on Sustainable Energy, Vol. 15, No. 4, pp. 2690-2702, Oct. 2024
- J53. M. Saffari, M. Khodayar, M. Khodayar, and M. **Shahidehpour**, "Behind-the-Meter Load and PV Disaggregation via Deep Spatiotemporal Graph Generative Sparse Coding with Capsule Network," in IEEE Transactions on Neural Networks and Learning Systems, Vol. 35, No. 10, pp. 14573-14587, Oct. 2024
- J54. Z. Lu, X. Xu, Z. Yan, M. **Shahidehpour**, W. Sun, and D. Han, "Distributionally Robust Chance Constrained Optimization Method for Risk-based Routing and Scheduling of Shared Mobile Energy Storage System with Variable Renewable Energy," IEEE Transactions on Sustainable Energy, Vol. 15, No. 4, pp. 2594-2608, Oct. 2024
- J55. Q. Yu, Z. Li, X. Han, P. Ju, M. **Shahidehpour**, "End-to-End Learning for Stochastic Preventive Dispatch of Renewables-Rich Power Systems in Abnormal Weather Conditions," Renewable Energy, Vol. 234, Nov. 2024, <https://doi.org/10.1016/j.renene.2024.121107>
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- C141. N. Ong, V. Ramesh and M. **Shahidehpour**, "Parallel Approach for Probabilistic Short-Circuit Studies," in Proceedings of the 1995 American Power Conference, pp. 636-641, Chicago, IL, April 1995
- C142. N. Ong, C. Beck and M. **Shahidehpour**, "Analysis of Simultaneous Unbalanced Faults Using Three-Port Network Theory," in Proceedings of the 1995 American Power Conference, pp. 642-647, Chicago, IL, April 1995
- C143. V. Ramesh and M. **Shahidehpour**, "Scheduling Power with Infrastructure Bottlenecks," in Proceedings of NSF Workshop on Electric Power Systems Infrastructure, Pullman, WA, Oct. 1994
- C144. K. Abdul-Rahman, M. **Shahidehpour** and N. Deeb, "Effect of EMF on Minimum Cost Power Transmission," in Proceedings of 1994 IEEE T&D Conference, Chicago, IL, April 1994
- C145. K. Abdul-Rahman and M. **Shahidehpour**, "Applications of Artificial Intelligence to Optimal Var Control in Electric Power Systems," in Proceedings of EPRI Conference on Applications of Expert systems in the Power Industry, Phoenix, AZ, Dec. 1993
- C146. C. Wang and M. **Shahidehpour**, "Optimal Generation Scheduling with Ramping Constraints," in Proceedings of the 1993 Power Industry Computer Applications (PICA) Conference, Phoenix, AZ, May 1993
- C147. K. Abdul-Rahman and M. **Shahidehpour**, "Application of Fuzzy Sets to Optimal Reactive Power Planning with Security Constraints," in Proceedings of the 1993 Power Industry Computer Applications (PICA) Conference, Phoenix, AZ, May 1993
- C148. K. Abdul-Rahman and M. **Shahidehpour**, "Optimal Reactive Power Dispatch with Fuzzy Variables," in Proceedings of 1993 IEEE International Symposium on Circuits and Systems, Chicago, IL, May 1993
- C149. C. Wang, M. **Shahidehpour** and R. Adapa, "Optimal Power Generation Scheduling," in Proceedings of the 1993 American Power Conference, Chicago, IL, April 1993

- C150. K. Labudda and M. **Shahidehpour**, "A Fuzzy Multi-Objective Approach to Power System State Estimation," in Proceedings of International Conference on Expert System Applications to Power Systems, Melbourne, Australia, Jan. 1993
- C151. C. Nwankpa and M. **Shahidehpour**, "Effect of Probabilistic Line Outages on Small Disturbance Stability Analysis," in Proceedings of 1992 IEEE International Conference on Systems, Man and Cybernetics, Chicago, IL, Oct. 1992
- C152. C. Wang and M. **Shahidehpour**, "A Fuzzy Artificial Neural Network for Multi-Area Optimal Power Generation Scheduling with Transmission Losses," in Proceedings of 1992 American Power Conference, Chicago, IL, April 1992
- C153. C. Wang and M. **Shahidehpour**, "A Fuzzy Set Approach to Tie line Flow Computation in Optimal Power Flow Scheduling," in Proceedings of 1992 American Power Conference, pp. 1443-1450, Chicago, IL, April 1992
- C154. C. Wang and M. **Shahidehpour**, "Multi-Area Unit Commitment with Ramp Limits," in Proceedings of 1992 American Power Conference, pp. 1075-1083, Chicago, IL, April 1992
- C155. Z. Ouyang, M. **Shahidehpour** and R. Adapa, "A Hybrid Neural Network Dynamic Programming Algorithm for Multi-Area Generation Scheduling," in Proceedings of 1992 American Power Conference, Chicago, IL, April 1992
- C156. S. Li, M. **Shahidehpour** and R. Adapa, "Classification of Units in Short-Term Generation Scheduling by Expert Systems," in Proceedings of 1991 EPRI Conference on Expert System Applications for the Electric Power Industry, Boston, MA, Sept. 1991
- C157. M. **Shahidehpour**, "A Fuzzy Set Approach to Heuristic Power Generation Scheduling with Uncertain Data," in Proceedings of 1991 NSF/EEI Workshop, Norman, OK, July 1991
- C158. C. Nwankpa and M. **Shahidehpour**, "Analysis of Various Random Perturbations of Transmission Lines in Power System Studies," in Proceedings of 1991 American Control Conference, Boston, MA, June 1991
- C159. N. Deeb and M. **Shahidehpour**, "Multi-Area Reactive Power Control Using Cross Decomposition," in Proceedings of 1991 American Control Conference, Boston, MA, June 1991
- C160. M. **Shahidehpour**, "Probabilistic Assessment of Hydrothermal Generation Capacity in a Less Regulated Environment," in Proceedings of NSF Workshop on the Impact of a Less Regulated Utility Environment on Power System Control and Security, Madison, WI, April 1991
- C161. C. Wang and M. **Shahidehpour**, "Application of Neural Networks in Generation Scheduling with Fuzzy Data," in Proceedings of 1991 American Power Conference, Chicago, IL, April 1991
- C162. C. Nwankpa and M. **Shahidehpour**, "A New Approach to the Indication of Voltage Collapse in Electric Power Systems," in Proceedings of 1990 Power Systems Computation Conference, Graz, Austria, Aug. 1990
- C163. C. Nwankpa and M. **Shahidehpour**, "Effect of Small Load Fluctuations on Power System Voltage Stability Studies," in Proceedings of the 1990 American Control Conference, pp. 2106-2110, San Diego, CA, May 1990
- C164. C. Nwankpa and M. **Shahidehpour**, "A Class of Power Network Reliability Problems Via Colored Noise Modeling," in Proceedings of the 1990 IEEE International Symposium on Circuits and Systems, pp. 164-167, New Orleans, LA, May 1990
- C165. Z. Ouyang and M. **Shahidehpour**, "Generation Scheduling Decision Supported by Neural Networks," in Proceedings of the 1990 EPRI Conference on Decision Support Methods for the Electric Power Industry, Cambridge, MA, May 1990

- C166. C. Wang and M. **Shahidehpour**, "Unit Commitment by Neural Networks," in Proceedings of 1990 American Power Conference, Vol. 52, pp. 245-250, Chicago, IL, April 1990
- C167. M. **Shahidehpour**, "Multi-Stage Unit Commitment by Artificial Neural Networks," in Proceedings of the NSF Workshop on Artificial Neural Networks, pp. 66-70, Clemson, SC, April 1990
- C168. Z. Ouyang and M. **Shahidehpour**, "Power Generation Scheduling Using an Expert System," in Proceedings of the Sixth IASTED Conference on Expert Systems, pp. 134-137, Los Angeles, CA, Dec. 1989
- C169. C. Nwankpa and M. **Shahidehpour**, "A Probabilistic Approach to Bulk Power Transmission Reliability," in Proceedings of the 1989 North American Power Symposium, pp. 88-94, Rolla, MO, Oct. 1989
- C170. A. Behera and M. **Shahidehpour**, "Dynamics of Power Systems in Reliability Studies," in Proceedings of 32nd Midwest Symposium on Circuits and Systems, pp. 268-272, Urbana, IL, Aug. 1989
- C171. M. **Shahidehpour**, "Power System Restoration-An Expert System Approach," Presented at the 1989 IEEE Power Engineering Society Summer Power Meeting, Long Beach, CA, July 1989
- C172. C. Nwankpa and M. **Shahidehpour**, "Inclusion of Small Random Perturbations in a Structure Preserving Model for Power System Reliability Studies," in Proceedings of the 1989 IASTED International Conference on Power, pp. 471-475, Valencia, Spain, July 1989
- C173. N. Deeb and M. **Shahidehpour**, "Modeling of Protection System in Composite Power Systems Reliability Evaluation," in Proceedings of the 16th International RAM Conference for the Electric Power Industry, pp. 415-421, Monterey, CA, June 1989
- C174. S. Shah and M. **Shahidehpour**, "A Rule Based Load Shedding Strategy in Electric Power Systems," in Proceedings of the EPRI Conference on Expert Systems in Power, Orlando, FL, June 1989
- C175. S. Tong and M. **Shahidehpour**, "An Innovative Approach to Generation Scheduling in Large- Scale Power Systems with Fuel Constrained Units," in Proceedings of the 1989 IEEE Power Industry Computer Applications Conference, pp. 188-196, Seattle, WA, June 1989
- C176. N. Deeb and M. **Shahidehpour**, "Calibration of Measurement Sets in an Electric Power System Using an Updated Broyden Method," in Proceedings of the 1989 American Power Conference, Chicago, IL, April 1989
- C177. N. Deeb and M. **Shahidehpour**, "Economic Allocation of Reactive Power Supply in an Electric Power Network," in Proceedings of the 1989 IEEE International Symposium on Circuits and Systems, pp. 1859-1862, Portland, May 1989
- C178. M. **Shahidehpour**, "Utilities' Concern for the Design of a Power System Security Analyzer," Presented at the 1988 Annual Meeting of the American Association for Artificial Intelligence, Minneapolis, MN, Aug. 1988
- C179. S. Shah and M. **Shahidehpour**, "Application of Expert System in the Design of Power System Security Analyzer," in Proceedings of the 1988 IASTED International Conference on Expert System Theory and Applications, pp. 14-18, Geneva, Switzerland, June 1988
- C180. J. Qiu and M. **Shahidehpour**, "Application of Singular Perturbation in Modeling Load Disturbances and Its Effect on Power Systems Reliability Evaluation," Presented at the 1988 SIAM Annual Meeting, Minneapolis, MN, May 1988
- C181. S. Shah and M. **Shahidehpour**, "Automated Reasoning: A New Concept in Power System Security Analysis," in Proceedings of the IEEE International Workshop on Artificial Intelligence for Industrial Applications, pp. 58-63, Hitachi City, Japan, May 1988
- C182. N. Abbasy and M. **Shahidehpour**, "An Overview of Power Systems Static State Estimation," in Proceedings of the 4th International Conference on Advanced Science and Technology, pp. 286-296, Chicago, IL, March 1988

- C183. N. Abbasy and M. **Shahidehpour**, "Power System State Estimation: A Mathematical Programming Approach," in Proceedings of the 1988 IASTED International Conference on High Tech in Power Industry, pp. 56-61, Tempe, AZ, Feb. 1988
- C184. S. Shah and M. **Shahidehpour**, "Application of Expert Systems to Power System Security Analysis," in Proceedings of the 49th Annual Meeting of the American Power Conference, pp. 780-788, Chicago, IL, April 1987
- C185. G. Kraft and M. **Shahidehpour**, "Application of Artificial Intelligence to Distributed Processing in a Power System Environment," in Proceedings of the 6th Power Plant Dynamics, Control and Testing Conference, Knoxville, TN, June 1986
- C186. J. Banda and M. **Shahidehpour**, "Underground Distribution Surge Protection," in Proceedings of the 48th Annual Meeting of the American Power Conference, pp. 657-664, Chicago, IL, April 1986
- C187. G. Kraft and M. **Shahidehpour**, "Recovery Techniques in a Distributed Power Environment," in Proceedings of the 1985 Power Plant Digital Control and Fault-Tolerant Microcomputers Conference, (Electric Power Research Institute), Phoenix, AZ, Sept. 1985
- C188. M. **Shahidehpour**, "Benefits of Interconnection in Three-Area Power Systems, in Proceedings of the 1985 Midwest Power Symposium, Houghton, MI, Oct. 1985
- C189. F. Samouhi and M. **Shahidehpour**, "Effect of Forced Oscillation on Transient Stability of Power Systems by Direct Method of Liapunov," in Proceedings of the 1984 Midwest Power Symposium, Philadelphia, PA, Oct. 1984
- C190. M. **Shahidehpour**, J. Tudor and C. Harbourt, "Multi-Area Power Reliability Evaluation," in Proceedings of the 1982 Reliability and Maintainability Symposium, pp. 132-137, Los Angeles, CA, Dec. 1982
- C191. M. **Shahidehpour** and J. Tudor, "Determination of LOLP and the Effect of Tie Capacity on Area Reserve Requirements," in Proceedings of the 1980 Midwest Power Symposium, Purdue University, West Lafayette, IN, Oct. 1980

Research Reports

- R1. M. Shahidehpour and C. Wang, "Applications of Artificial Neural Networks in Multi-Area Generation Scheduling with Fuzzy Data," EPRI Publication TR-104219, July 1994
- R2. Final Report: EISPC Energy Zones, Published by the National Association of Regulatory Utility Commissioners (NARUC), Project funded by the US Department of Energy, Available at http://www.naruc.org/Grants/Documents/Energy_Zones_Final_Report_Combined_Sections_12_13_2013_FINAL.pdf
- R3. Final report: Co-optimization of Transmission and Other Supply Resources, Published by the National Association of Regulatory Utility Commissioners (NARUC), Project funded by the US Department of Energy, Available at file:///C:/Users/MS/Downloads/Co-optimization-White-paper_Final.pdf
- R4. Final Report: Long-term Electric and Natural Gas Infrastructure Requirements, published by the National Association of Regulatory Utility Commissioners (NARUC), Project funded by the US Department of Energy, Available at <http://www.naruc.org/Grants/Documents/EISPC%20Long%20Term%20Electric%20and%20Natural%20Gas%20Infrastructure%20Requirements%20WHITE%20PAPER.pdf>
- R5. Final Report: Load Forecasting Case Study, published by the National Association of Regulatory Utility Commissioners (NARUC), Project funded by the US Department of Energy, Available at http://www.naruc.org/Grants/Documents/Load%20Forecasting%20Case%20Study%20_%20UNCC.pdf

TECHNICAL COMMITTEE ACTIVITIES

IEEE Committees

- C1. IEEE PES Ramakumar Family Renewable Energy Excellence Award (Chair, 2021-2025)
- C2. IEEE PES Douglas M. Staszkesky Distribution Automation Award Committee (Chair, 2017-2023)
- C3. IEEE PES Outstanding Power Engineering Educator Award Committee (Chair, 2014-2023)
- C4. IEEE PES CSEE Yuhsiu Ku Award Committee (Member, 2015-2023)
- C5. IEEE Transactions on Smart Grid (Founding Editor-in-Chief, 2008-2015)
- C6. IEEE PES (Vice President-Publications, 2008-2012)
- C7. IEEE PES Distinguished Lecturer (2004-present)
- C8. IEEE PES Power System Operations Committee (Chair, Vice-Chair, Secretary, 2003-2009)
- C9. IEEE PES Prize Paper Awards Committee (Chair, 2002-2007)
- C10. IEEE PES Operation Methods Subcommittee (Chair, 1996-1998)
- C11. IEEE PES Task Force on Power System Protection Reliability (Chair, 1987-1993)
- C12. IEEE PES Task Forces on Bibliography and Bulk Transmission Reliability (Chair, 1985-1987)
- C13. IEEE PES Subcommittee on Applications of Probability Methods (Secretary, 1984-1989)
- C14. IEEE PES Chicago Chapter (Seminar Chair, 1986-1987)
- C15. IEEE PES, Chicago Chapter (Program Chair, 1985-1986)
- C16. IEEE Technical Activities Board (Chair, Transactions Committee, 2004-2006)
- C17. IEEE Fellow Committee (Member, 2003-2006)
- C18. IEEE Systems, Man & Cybernetics Society (Chair of the Chicago Chapter, 1992-1993)
- C19. IEEE Region 4 Student Paper Contest (Chair, 1992-1993)
- C20. IEEE Admissions and Advancement Committee (Member, 1992-1993)

International Conference Committees

- T1. IEEE International Conference on Applied Research in Electrical Engineering (Member of the Technical Committee, AREE 2025)
- T2. 2024 International Conference on Present Challenges and Innovation in electrical Engineering, Osmania University, (Member of the Advisory Committee, PCIEE 2024)
- T3. 11th IEEE Power India International Conference (Member of the Technical Committee, PIICON 2024)
- T4. International Conference on Intelligent Systems and Security (Member of the Technical Committee, ICISS2024)
- T5. 20th International Symposium on Artificial Intelligence and Signal Processing, Iran (Member of the Technical Committee, 2024)
- T6. 2024 Iranian Conference on Electrical Engineering (ICEE, Member of the Technical Committee)
- T7. Smart Mobility and Logistics Ecosystems (SMiLE) Conference, Saudi Arabia (Member of the Technical Committee, 2024)
- T8. IEEE Conference on Applied Research in Electrical Engineering, AREE2024, Iran (Member of the Technical Committee, 2024)
- T9. IEEE Conference on Renewable Energy & Distributed Generation, ICREDG, Iran (Member of the Technical Committee, 2024)
- T10. IEEE Smart Grid Conference, Iran (Member of the Technical Committee, 2024)
- T11. IEEE PES Asia-Pacific Power and Energy Engineering Conference (Member of the Technical Committee,

2019)

- T12. IEEE PowerTech, Netherlands (Member of the Technical Committee, 2015)
- T13. IEEE EUROCON, Croatia (Member of the Technical Committee, 2013)
- T14. IEEE Conference on Signal Proc., Comp. and Control (Member, 2013)
- T15. IEEE CERA Conference, India (Member of the Technical Committee, 2012)
- T16. IEEE Smart Grid Technologies Conference, Washington (General Chair, 2012)
- T17. IEEE PowerTech Conference, France (Member of the Technical Committee, 2013)
- T18. IEEE Great Lakes Symposium on Smart Grid and New Energy Econ. (Chair, 2011-2014)
- T19. IEEE Smart Grid Tech. Conference, Sweden (Member of the Technical Committee, 2010)
- T20. IEEE DRPT (Member of the Advisory Committee of the 2007, China)
- T21. IEEE SMC (Member of the Technical Program Committee, 2003-2006)
- T22. IEEE Jordan Conference (Member of the Technical Program Committee, Jordan 2005)
- T23. IEEE PICA Conference (Member of the Technical Committee, 1994-2002)
- T24. IEEE T&D Conference (Member of the Executive Committee, 1993-1994)
- T25. IEEE SMC Conference (Vice-Chair, 1991-1992)
- T26. PSCC, Greece (Member of the Technical Committee, 2011)
- T27. ELECO, Turkey (Member of the Technical Committee, 2003-2007)
- T28. LASCOPE03, Canada (Member of the Technical Program Committee, 2003)
- T29. American Power Conference, Chicago (Associate Director, 1984-1991)

National Electrical Engineering Honor Society (HKN)

- 1998-2000 President, HKN's National Board of Directors
- 1993-2000 Member, National Board of Directors
- 2007-2011 Chair, Distinguished Service Award Committee
- 1995-2000 Member of the HKN's Outstanding Professor Award Committee
- 1992-1994 President and vice-president of the IIT's Sigma Xi Society

National Academy of Engineering (NAE)

- 2022-2024 Member of the Gordon Prize Committee
- 2022-2023 Member of the Net Energy Metering Committee
- 2019 Organizer, NAE Workshop on Smart Cities for a Sustainable Globalization
- 2018-2021 Member, NAE Peer Committee - Section 6
- 2014 Organizer, NAE Workshop on Smart Grid Technology Potential and Challenges

External Examiner of Academic Programs

- EE1. External Reviewer for Promotion and Tenure Cases at University of Manchester, Yarmouk University, Jordan, American University of Beirut, University of Wisconsin, University of Nebraska, University of Missouri, Drexel University, Michigan Technological University, Texas A&M University, Southern Illinois University, Nanyang Tech. University, Singapore, San-Juan University, Argentina, Sultan Qaboos University- Oman, University of California, Tulane University, Michigan State University, New Mexico Tech, Clemson University, Petra University-Malaysia, Mississippi State University, Clarkson University, University of Oklahoma, King Faisal University, Prince Mohammad Bin Fahd University, Seoul National University, University of Bologna, University of New Orleans, University of Texas, University of Saskatchewan, University of Denver, York University, University of Pittsburg, Ohio State University,

Shanghai Jiaotong University, University of Hawaii, University of Vermont, Clarkson University, Colorado State University, King Abdulaziz University, Zhejiang University, Iowa State University, Stevens Institute of Technology, University of Toronto, Southern Methodist University, KU Leuven, New York University, Washington State University, Virginia Tech, University of Florida, University of Georgia, West Virginia University, University of St. Thomas, Southern Illinois University, University of Michigan, University of Hawaii, Clemson University, University of Colorado, University of New Mexico, University of Sciences and Technology, Pakistan.

- EE2. Member of the PhD Board of Examiners, Indian Institute of Technology, (Kanpur, Bombay, Kharagpur), University of Waterloo, San Juan University (Argentina), National Institute of Technology-Kurukshetra, (India), University of Calgary, Swiss Federal Institute of Technology of Lausanne, University of Victoria (Canada).
- EE3. External Reviewer, American University of Beirut Graduate Degree program in Computer and Communication Engineering
- EE4. External Reviewer of Research Projects at the Kuwait University, University of Petroleum and Minerals in Saudi Arabia
- EE5. Member of the Advisory Board, Center of Advanced Research in Electrified Transportation, Aligarh Muslim University, India (<http://www.amucaret.com/international-advisory-board/>)

Technical Review Activities

Technical reviewer (reviewed over 1000 papers) for IEEE Transactions on Power Systems, IEEE Transactions on Smart Grid, IEEE Transactions on Power Delivery, IEEE Transaction on Sustainable Energy, IEEE Transactions on Circuits and Systems, IEEE Transactions on Systems, Man and Cybernetics, IEE Proceedings, Journal of Modern Power Systems and Clean Energy, Journal of Optimization Theory and Applications, Canadian Electrical and Computer Engineering Journal, International Journal of Electrical Power and Energy Systems, Journal of Electric Power Systems Research, Journal of Optimal Control Applications, Journal of Intelligence Systems Review, Kluwer Publishers, Academic Press Publishing Company, Journal of Electric Machines and Power Systems IFAC Symposium, International Conference on Systems, Man and Cybernetics, Power Industry Computer Applications Conference, International Symposium on Circuits and Systems, American Control Conference, Middle East Power Conference, Power System Computation Conference, John Wiley, Qatar Foundation, EPRI, DOE, AFOSR, NSF and ONR (reviewed technical proposals and participated in workshops and review panels)

Planning and Organization of Technical Sessions at National Meetings

- T1. Load Management: 1984 American Power Conference, Chicago, IL
- T2. Environment: 1985 American Power Conference, Chicago, IL
- T3. System Reliability Evaluation: 1985 IEEE/PES Summer Meeting, Vancouver, Canada
- T4. Transmission System Reliability: 1986 IEEE/PES Summer Meeting, Mexico City
- T5. Electrical Transmission: 1986 American Power Conference, Chicago, IL
- T6. Expert Systems in Power Systems: 1988 International Conference on Expert Systems, Switzerland
- T7. Production Costing: 1990 IEEE/PES Winter Meeting, Atlanta, GA
- T8. Power System Operations Topics: 1990 IEEE/PES Winter Meeting, Atlanta, GA
- T9. Real and Reactive Power Dispatch: 1991 IEEE/PES Summer Meeting, Minneapolis, MN
- T10. Neural Networks: 1991 American Power Conference, Chicago, IL
- T11. Bulk Power System Reliability: 1991 IEEE/PES Summer Meeting, San Diego, CA

- T12. Power Electronics Applications: 1991 North American Power Symposium, Carbondale, IL
- T13. Real Time Pricing and Optimal Scheduling: 1992 IEEE/PES Winter Meeting, New York, NY
- T14. System Operations Topics: 1992 IEEE/PES Winter Meeting, New York, NY
- T15. Advances in Reliability Computation: 1992 IEEE/PES Winter Meeting, New York, NY
- T16. Power System Economic Evaluation: 1992 IEEE/PES Summer Meeting, Seattle, WA
- T17. Power Systems Dynamics: 1992 IEEE International Conference on SMC, Chicago, IL
- T18. Poster Panel Session: 1992 American Power Conference, Chicago, IL
- T19. Fuzzy Systems: 1993 Conference on Expert Systems Applications to Power Systems, Australia
- T20. Poster Panel Session: 1993 American Power Conference, Chicago, IL
- T21. System Operations Topics: 1993 IEEE/PES Summer Meeting, Vancouver, Canada
- T22. System Operations: 1994 IEEE/PES Winter Meeting, New York, NY
- T23. Power System Stability: 1994 American Power Conference, Chicago, IL
- T24. Operations Support-ANN Topics: 1994 IEEE/PES Winter Meeting, New York, NY
- T25. Hydro Scheduling: 1995 PICA, Salt Lake City, UT
- T26. Economic Generation Dispatch: 1996 IEEE/PES Summer Meeting, Denver, CO
- T27. Risk Management in Deregulated Systems: 1996 IEEE/PES Summer Meeting, Denver, CO
- T28. Unit Commitment: 1997 PICA, Columbus, Ohio
- T29. State Estimation: 1998 Large Engineering Systems Conference, Halifax, Canada
- T30. Operation Methods: 1999 IEEE/PES Winter Meeting, New York, NY
- T31. Hydro Applications: 1999 PICA, Santa Clara, CA
- T32. Analytical Methods: 1999 PICA, Santa Clara, CA
- T33. Tools for Restructured Power Systems: 2003 IEEE/PES Annual Meeting, Toronto, Canada
- T34. Power Market Operations: 2010 IEEE Smart Grid Innovation Technologies, Gaithersburg, MD
- T35. Storage: 2011 Cigre Conference on Electric Power System of the Future, Bologna, Italy