

MOHAMMAD SHAHIDEHPOUR, IEEE Fellow, AAAS Fellow
Member, US National Academy of Engineering

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SUMMARY OF ACTIVITIES

Dr. Mohammad Shahidehpour joined Illinois Institute of Technology (Illinois Tech) in 1983. He is a University Distinguished Professor and Bodine Chair Professor in the Electrical and Computer Engineering Department. He also serves as the Director of the Robert W. Galvin Center for Electricity Innovation and Associate Director of WISER at Illinois Tech. Dr. Shahidehpour is an IEEE Fellow, a Fellow of the American Association for the Advancement of Science (AAAS), and a member of the US National Academy of Engineering.

Dr. Shahidehpour was the recipient of IEEE PES Douglas M. Staszkesky Distribution Automation Award, IEEE PES Outstanding Power Engineering Educator Award, IEEE PES T. Burke Hayes Faculty Recognition Award, 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 was the 2009 recipient of the honorary doctorate from the Polytechnic University of Bucharest. He is the holder of Nourbakhshian Endowed Chair Professorship, University of Kashan, Iran, and Otto Monsted Professorship, Technical University of Denmark. He is a Research Professor at King Abdulaziz University (Saudi Arabia), Sharif University of Technology (Iran), as well as several universities in China including Tsinghua University, Xian Jiaotong University, Chongqing University, Nanjing University, North China Electric Power University, and Hunan University.

He is the Principal Investigator of \$60 million grants and contracts on smart grid research and development. His DOE Project on Perfect Power Systems has converted the entire Illinois Tech Campus to an islandable microgrid. He has initiated CSMART (Center for Smart Grid Applications, Research, and Technology) at Illinois Tech for promoting the smart grid cybersecurity research and implementation and enhancing the resilience of wireless networked communication and control systems in smart cities. He is a member of the SPIKE Center in the Stuart School of Business at Illinois Tech, which is facilitating the design and the implementation of affordable microgrids in impoverished nations.

Dr. Shahidehpour has supervised and worked with 140 graduate research students and visiting scholars at Illinois Tech. He has co-authored 6 books and 500 papers 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 who has made 400 presentations at technical forums and served as the VP of Publications for the IEEE Power and Energy Society, Editor of IEEE Transactions on Power Systems, and the founding Editor-in-Chief of the IEEE Transactions on Smart Grid.

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Related Links:

<http://www.galvincenter.org>
<http://scholar.google.com/citations?user=Wbk0-zYAAAAJ&hl=en&oi=ao>
https://www.researchgate.net/profile/M_Shahidehpour
<https://www.facebook.com/mohammad.shahidehpour.1>
<https://www.linkedin.com/in/mohammad-shahidehpour-a8a6773a?trk=hp-identity-photo>

Google Citations: 24,000
h-index: 82

ACADEMIC APPOINTMENTS

Academic Positions at Illinois Institute of Technology

- University Distinguished Professor (2017-present)
- Bodine Chair Professor, Electrical and Computer Engineering Department (2005-present)
- Professor, Stuart School of Business (dual appointment, 2014-present)
- 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 (1994-2000)
- Associate Dean of Engineering for Research and Graduate Studies (1993-1994)
- Chair, ECE Department (2005-2010)
- Director, CSMART (2014-Present, Center for Smart-Grid Applications, Research, and Technology)
- 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)

Honorary Appointments

- Research Professor, Tehran University, Iran (2017-present)
- Research Professor, Tabriz University, Iran (2017-present)
- Research Professor, Nanjing Normal University, China (2017-present)
- Nourbakhshian Endowed Chair Professorship, Kashan University, Iran (2016)
- Otto Monsted Professorship, Technical University of Denmark (2016)
- Advisory Professor, Chongqing University, China (2016-present)
- Research Professor, Tsinghua University, China (2015-present)
- Research Professor, Xian Jiaotong University, China (2015-present)
- Research Professor, Hunan University, China (2015-present)
- Research Professor, Southeast University, China (2015-present)
- Research Professor, King Abdulaziz University, Jeddah, Saudi Arabia (2011-present)
- Research Professor, Sharif University of Technology, Iran (2006-present)
- Research Professor, North China Electric Power University, Beijing (2002-present)

HONORS AND AWARDS

- Member, US National Academy of Engineering (2016)
- Member, Iran National Academy of Science (2017)
- Fellow of IEEE (for contributions to security-constrained unit commitment, 2001)
- Fellow of the American Association for the Advancement of Science (AAAS, 2016)
- Outstanding Alumnus Award (50th Anniversary of the Sharif University, Iran, 2016)

- 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)

- Illinois Technology Association (Technologist of the Year Award, 2011)
- Electrical Engineering Department Head Association (Innovative Program Award, 2011)
- Illinois Tech's 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)
- Romanian Association of Engineers (Outstanding Author Award, 2013, joint with Prof. Eremia)
- Best Technical Paper Award, North American Power Symposium (1999)
- Illinois Tech's Excellence in Teaching Award (1990)
- Illinois Tech's Outstanding HKN Chapter Advisor Award (1988)

- Honorary Doctorate, Polytechnic University of Bucharest, Romania, June 2009 (2009)
- Nourbakhshian Endowed Chair Professorship, University of Kashan, Iran (2016-present)
- Otto Monsted Professorship, Technical University of Denmark (2016)
- Judd Distinguished Lectureship, University of Utah (2016)
- iCONE Distinguished Speaker, University of North Carolina (2016)
- UMERD Distinguished Lecture, University of Maryland (2014)

- 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, microgrid design and operation, sustainable energy integration, cyber-physical systems, computational economics, and decision analyses

Publications and Presentations: 500 technical articles and 6 books; 300 presentations, invited colloquia at conferences and workshops, and outreach campaigns for the promotion of smart grid applications in various global communities

Research Supervision: 64 PhD and 31 master's thesis students, and 42 visiting professors

Technical Courses Taught: Elements of Smart Grid, Microgrid Design and Operation, Power System Planning, Market Operations in Power Systems, Operation and Control of Power Systems, Communication and Control in Power Systems, Renewable Electric Power Systems, Optimization Theory and Applications, 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

Honorary Doctorate Polytechnic University of Bucharest, Romania, 2009

Ph.D. Electrical Engineering Department, University of Missouri, Columbia, 1981

M.S. Electrical Engineering Department, University of Missouri, Columbia, 1978

B.S. Electrical Engineering Department, Sharif University of Technology, Iran, 1977 (High Honors)

BOOKS

1. M. **Shahidehpour** and M. Marwali, Maintenance Scheduling in Restructured Power Systems, Springer, May 2000
2. M. **Shahidehpour** and M. Alomoush, Restructured Electrical Power Systems, Taylor and Francis, June 2001
3. M. **Shahidehpour**, H. Yamin and Z. Li, Market Operations in Electric Power Systems, John Wiley and Sons, March 2002
4. M. **Shahidehpour** and Y. Wang, Communication and Control of Electric Power Systems, John Wiley and Sons, June 2003
5. M. **Shahidehpour**, Z. Li and Y. Fu, Energy System Control and Operation, John Wiley and Sons, 2017
6. M. **Shahidehpour** and L. Wu, Stochastic Methods in Electric Power Systems, John Wiley and Sons, 2017
7. 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
8. 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
9. 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

10. M. **Shahidehpour** and M. Marwali, "Power Transmission Network," chapter in Wiley Encyclopedia of Electrical and Electronics Engineers, 1999
11. M. **Shahidehpour** and R. Ferrero, "Electricity Supply Industry," chapter in Wiley Encyclopedia of Electrical and Electronics Engineers, 1999

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.

INVITED TALKS AT EDUCATIONAL INSTITUTIONS AND INDUSTRY

Keynote Speeches

1. World Scientific and Engineering Congress, Astana, Kazakhstan (2017)
2. 2017 International Forum on Smart Grid Protection and Control, NARI, Nanjing, China (2017)
3. 14th IEEE International Conference on HONET-ICT, Irbid, Jordan (2017)
4. 5th International Istanbul Smart Grids & Cities Congress and Fair, Turkey (2017)
5. Energy Institute Workshop, University of Tabriz, Iran (2017)
6. 3rd Renewable Energy Conference, Sajjad University, Mashhad, Iran (2017)
7. International Conference on New Energy and Environmental Engineering, Cairo, Egypt (2016)
8. 13th IEEE International Conference on HONET-ICT, Nicosia, Cyprus (2016)
9. IEEE Asia-Pacific Power & Energy Engineering Conference (APPEEC), Xian, China (2016)
12. IEEE International Conference on Smart Energy Grid Engineering, Oshawa, Canada (2015)
13. IEEE Smart Grid Conference, Tehran, Iran (2015)
14. Workshop on Power Systems and Markets, Pennsylvania State University, State College (2015)
15. IEEE India International Conference INDICON, New Delhi, India (2015)
16. IEEE International Conference on HONET-ICT, Islamabad, Pakistan (2015)
17. IEEE International Workshop on Integrated Power Packaging, Chicago (2015)
18. IEEE International Conference on Direct Current Microgrids, Atlanta (2015)
19. 2015 ICEE, Sharif University of Technology, Iran (2015)
20. IEEE Smart Grid Conference, Tehran, Iran (2014)
21. Australian Universities Power Engineering Conference, Perth, Australia (2014)
22. International Smart Grid Conference (ISGC&E 2013), Jeju Island, South Korea (2014)
23. Innovative Smart Grid Technologies Conference (ISGT Asia 2013), Bangalore, India (2013)
24. Smart Electrical Grid Technology Conference, University of Science and Technology, Iran (2012)
25. Advancing Wind Power in Illinois Annual Conference, Normal, Illinois (2012)
26. Smart Grid Roadmap, Energy Efficiency Organization, Tehran, Iran (2012)
27. IEEE ISGT Conference-Australia, Perth, Australia (2011)
28. 2011 IEEE ISGT Conference-Middle East, Jeddah, Saudi Arabia (2011)
29. Fourth DRPT Conference, Shandong University, China (2011)
30. 2011 ICEE Conference, Amirkabir University, Tehran, Iran (2011)
31. 2010 ISGT Conference, Chalmers University, Gothenburg, Sweden (2010)
32. 2010 PMAPS Conference, Singapore (2010)

33. Third Brazilian Symposium on Electrical Power Systems, Belem, Brazil (2010)
34. 41st Energy Information Dissemination Program, Oklahoma State University (2010)
35. 2010 ICEE, Isfahan University of Technology, Iran (2010)
36. 2009 Meeting of Italian Federation of Electrical Engineers, Catania (2009)
37. 2009 Asia T&D Conference, Seoul, South Korea (2009)
38. 2009 PowerTech Conference, Bucharest, Romania (2009)
39. 2008 Power System Conference, Tehran, Iran (2008)
40. Industrial & Commercial Use of Energy Conference, Cape Town, South Africa (2008)
41. National Power Engineering Conference, Malaysia (2003)

Sponsored Talks and Colloquia

1. University of Tehran, Tehran, Iran (2017)
2. Southeast University, Nanjing, China (2017)
3. Nanjing Normal University, Nanjing, China (2017)
4. NARI Research Center, Nanjing, China (2017)
5. University of Denver (2017)
6. King Abdulaziz University, Jeddah, Saudi Arabia (2017)
7. National Academy of Sciences, Tehran, Iran (2017)
8. University of Los Andes, Bogota, Colombia (2016)
9. Tsinghua University, Beijing, China (2016)
10. Sharif University, Iran (2016)
11. Tsinghua-Berkeley Shenzhen Institute, China (2016)
12. Cyprus International University, Nicosia, Cyprus (2016)
13. Hohai University, Nanjing, China (2016)
14. University of Tabriz, Tabriz, Iran (2016)
15. Technical University of Denmark, Copenhagen (2016)
16. Nanjing Normal University, Nanjing, China (2016)
17. Chongqing University, Chongqing, China (2016)
18. Rutgers University (2016)
19. Shenzhen University, Shenzhen, China (2016)
20. Federal Energy Regulatory Commission, Washington DC (2016)
21. State Grid Corporation of China, Nanjing, China (2016)
22. University of Tehran (2016)
23. University of Macau, Macau, China (2016)
24. Ferdowsi University, Iran (2016)
25. Jinan University, Zhuhai, China (2016)
26. Kashan University, Iran (2016)
27. Guangdong University of Technology, Guangzhou, China (2016)
28. MAPNA Corporation, Iran (2016)
29. Grid Management Authority, Iran (2016)
30. Grid Research Institute, Iran (2016)
31. Future University of Egypt, Cairo (2016)
32. King Abdulaziz University, Jeddah, Saudi Arabia (2016)

33. University of North Carolina, Charlotte (2016)
34. Illinois Commerce Commission Meeting on Smart Cities, Chicago (2016)
35. University of Utah (2016)
36. Tsinghua University, Beijing, China (2015)
37. National University of Science and Technology, Islamabad, Pakistan (2015)
38. Sharif University of Technology, Tehran, Iran (2015)
39. Jamia Millia Islamia, New Delhi, India (2015)
40. Urmia University, Urmia, Iran (2015)
41. King Abdulaziz University, Jeddah, Saudi Arabia (2015)
42. Kashan University, Kashan, Iran (2015)
43. Xian Jiaotong University, Xian, China (2015)
44. Middle-East Technical University, Turkey (2015)
45. Workshop on Empowering Customers and Cities, Chicago (2015)
46. Hunan University, Changsha, China (2015)
47. Southeast University, Nanjing, China (2015)
48. Massachusetts Institute of Technology, Boston (2015)
49. Florida International University, Miami (2015)
50. Fourah Bay College, Sierra Leone, Africa (2015)
51. University of Kashan, Iran (2015)
52. Young Professionals in Energy (Burns & McDonnell Summit), Chicago (2015)
53. University of Tabriz, Iran (2015)
54. Azerbaijan Regional Power Authority, Iran (2015)
55. Microgrid Global Summit, California (2015)
56. OATI Energy Conference, Las Vegas (2014)
57. IEEE Smart Grid Conference, Tehran, Iran (2014)
58. University of Maryland, Institute for Systems Research (2014)
59. Southern Methodist University, Dallas (2014)
60. Energy and Environment Protection Hearing, Legislature of the U.S. Virgin Islands (2014)
61. Gas Power Symposium, Chicago (2014)
62. Microgrid Global Summit, Newport Beach, California (2014)
63. DOE Sunshot Grand Challenge Summit, Anaheim, California (2014)
64. Emerge Mayoral Summit, Miami (2014)
65. Clarkson University, Potsdam, New York (2014)
66. Natural Gas Power Generation Conference, Chicago (2014)
67. OSIssoft Summit, San Francisco (2014)
68. University of Denver (2014)
69. Denmark Technical University, Copenhagen (2013)
70. University of Calgary, Canada (2013)
71. Kerman University, Iran (2013)
72. Wind Powering America, Chicago (2013)
73. Columbia University, Earth Institute, New York (2013)
74. Virginia Tech, Advanced Research Institute (2013)
75. Tsinghua University, Beijing, China (2013)

76. Northwestern University, Evanston, Illinois (2013)
77. King Abdulaziz University, Jeddah, Saudi Arabia (2013)
78. University of Texas-Dallas (2013)
79. S&C Electric Company, Chicago, Illinois (2013)
80. Sharif University of Technology, Tehran, Iran (2012)
81. Schneider Electric Meeting on Smart Grid, Paris (2012)
82. Illinois Solar Energy Association, Chicago (2012)
83. Eaton Corporation Centennial Meeting, Chicago (2012)
84. University of Texas at Arlington (2012)
85. King Abdulaziz University, Jeddah, Saudi Arabia (2012)
86. Annual Meeting of Electrical Engineering Department Head Association, Austin (2012)
87. PJM Interconnection (2012)
88. Sharif University of Technology, Tehran, Iran (2011)
89. King Abdulaziz University, Jeddah, Saudi Arabia (2011)
90. K.N. Toosi University, Tehran, Iran (2011)
91. Cigre Conference on Electric Power System of Future, University of Bologna, Italy (2011)
92. Tianjin University, Tianjin, China (2011)
93. Annual Meeting of Electrical Engineering Department Head Association, Phoenix (2011)
94. University of Nevada, Reno (2011)
95. Illinois Science & Technology Coalition Meeting at the U.S. Capitol, Washington, DC (2011)
96. U.S. Department of Energy Workshop on Workforce Development, Washington, DC (2011)
97. National Renewable Energy Laboratory, Boulder (2011)
98. Achievement Rewards for College Scientists (ARC) Foundation, Chicago (2011)
99. Stuart School of Business, Illinois Tech, Chicago (2011)
100. Illinois Tech Alumni Association, Anaheim (2011)
101. Petroleum Institute, Abu Dhabi (2010)
102. Korea University, Seoul (2010)
103. KEPCO Electric Power Research Institute, Daejeon, South Korea (2010)
104. 2010 Nebraska Research and Innovation Conference, Lincoln, Nebraska (2010)
105. 2010 EEI Transmission and Distribution Conference, Denver (2010)
106. Chalmers University, Sweden (2010)
107. Federal University of Para, Belem, Brazil (2010)
108. Oklahoma State University (2010)
109. IEEE Chicago Section (2010)
110. Isfahan University of Technology, Iran (2010)
111. Sharif University of Technology, Iran (2010)
112. Nanyang Technological University, Singapore (2010)
113. National Seoul University, South Korea (2009)
114. University of Bologna, Italy (2009)
115. British Columbia Hydro, Canada (2009)
116. Polytechnic University of Bucharest, Romania (2009)
117. University of São Paulo, San Carlos, Brazil (2008)
118. Federal University do Rio Grande do Sul, Porte Alegre, Brazil (2008)

119. Pontifical Catholic University, Porte Alegre, Brazil (2008)
120. Tehran University, Iran (2008)
121. Sharif University of Technology, Iran (2008)
122. Cape Peninsula University of Technology, Cape Town South Africa (2008)
123. University of the Witwatersrand, Johannesburg, South Africa (2008)
124. Regulatory Authority for Energy, Athens, Greece, (2007)
125. American Transmission Company, Wisconsin (2007)
126. Electricity Engineers Association of New Zealand, Auckland (2007)
127. University of Auckland, New Zealand (2007)
128. Transpower New Zealand, Ltd, Wellington, New Zealand (2007)
129. Citadel Group, Illinois (2007)
130. American Transmission Company, Wisconsin (2006)
131. University of Waterloo, Canada (2006)
132. Sharif University of Technology, Iran, (2006)
133. Korea Power Exchange, Seoul (2006)
134. IEEE India Power Conference, Delhi (2006)
135. IEEE Qatar Section, Qatar (2006)
136. IEEE Dhahran Section, Saudi Arabia (2006)
137. King Fahd University of Petroleum and Minerals, Saudi Arabia (2006)
138. Polytechnic University of Tehran, Iran (2006)
139. Grid Management Corporation, Iran (2006)
140. Istanbul Technical University, Turkey (2005)
141. Mohandes Society, Toronto, Canada (2005)
142. University College Dublin (2005)
143. University of London, U.K. (2005)
144. Technical University of Bucharest, Romania (2005)
145. IEEE Chicago Section of PES, Chicago (2005)
146. IEEE Fox Valley Section, Illinois (2004)
147. University of Engineering and Technology, Lahore, Pakistan (2004)
148. Central Electricity Authority HQ, Delhi, India (2004)
149. Indian Institute of Technology, Madras, India (2004)
150. Federation of Andhra Pradesh Chambers of Commerce, Hyderabad, India (2004)
151. Jadavpur University, Calcutta, India (2004)
152. National Power Engineering Conference (keynote Speaker), Malaysia (2003)
153. American University of Beirut, Lebanon (2003)
154. Nexant Corporation, Arizona (2003)
155. OM Corporation, California (2003)
156. California ISO, Sacramento (2003)
157. American Transmission Company, Wisconsin (2003)
158. Sargent and Lundy Corporation, Illinois (2003)
159. Pars Corporation, California (2003)
160. North China Electric Power University, Beijing (2003)
161. Kolej Universiti Teknikal Kebangsaan Maleka, Malaysia (2003)

162. Exelon Corporation, Illinois (2002)
163. Yarmouk University, Jordan (2002)
164. Energy Transmission Company, Jordan (2002)
165. North China Electric Power University, China (2002)
166. Tsinghua University, China (2002)
167. Electric Power Research Institute, China (2002)
168. Tehran University, Iran (2002)
169. Energy Research Center, Ministry of Energy, Iran (2001)
170. Sharif University, Tehran, Iran (2001)
171. Ferdowsi University, Iran (2000)
172. Michigan Technological University (2000)
173. Southern Illinois University (2000)
174. OATI Corporation, Minnesota (1999)
175. Argonne National Laboratory, Illinois (1998)
176. University of Missouri-Rolla, Missouri (1997)
177. San Juan University, Argentina (1996)
178. Commonwealth Edison Company, Illinois (1995)
179. Marquette University, Wisconsin (1994)

EDITORIAL BOARD MEMBERSHIP

- IEEE Power and Energy Society (Vice President of Publications, 2008-2011)
- IEEE Transactions on Smart Grid (Founding Editor-in-Chief, 2009-2014)
- IEEE Transactions on Power Systems (Topical Editor, 1995-2008)
- IEEE Transactions on Systems, Man and Cybernetics (Topical Editor, 1997-2000)
- IEEE Access Journal (Topical Editor, 2013-2015)
- IEEE Electrification Magazine (Topical Editor, 2013-present)
- IEEE Power and Energy Magazine (Topical Editor, 2002-present)
- IEEE Power Engineering Letters (Topical Editor, 1997-2008)
- IEEE CAP Magazine (Topical Editor, 1998-2002)
- IEEE Transaction on Power Systems (Guest Editor, 2003)
- IEEE Electrification Magazine (Guest Editor in Chief 2014, 2015, 2017)
- IEEE Power and Energy Magazine (Guest Editor in Chief, 2004, 2005, 2006, 2007, 2008, 2014, 2017)
- IEEE Proceedings (Guest Editor, 2005, 2006)

- CSEE Journal of Power and Energy Systems (Guest Editor in Chief, 2017)
- International Journal of Electrical Power and Energy Systems (Topical Editor, 2016-present)
- Journal of Electrical Eng. of University of Tabriz (Member of the Editorial Board, 2016-present)
- Journal of Modern Power Systems and Clean Energy (Member of the Editorial Board, 2013-present)
- Electricity Journal (Topical Editor, 2009-present)
- Energy Systems Journal (Member of the Editorial Board, 2009-present)
- Korean IEE Journal of Power Engineering (Topical Editor, 2004-present)
- International Journal of Emerging Electric Power (Topical Editor, 2004-present)
- Wiley Encyclopedia of Electrical and Electronics Engineering (Topical Editor, 2011-2013)
- HKN Bridge Magazine (Member of the Editorial Board, 2000-2002)
- CSEE (China) Journal of Power and Energy Systems (Guest Editor, 2016)
- Journal of Electric Power System Research Journal (Guest Editor, 2013)
- Electricity Journal (Guest Editor, 2012)
- Journal of Electric Power Systems Research (Member of the Editorial Board, 1997-2009)
- Journal of Electric Machines and Power Systems (Member of the Editorial Board, 1996-2000)
- Marcel Dekker Book Series in Power Systems (Topical Editor, 2000-2002)

RESEARCH AND DEVELOPMENT GRANTS AND CONTRACTS

1. Microgrid-Integrated Solar-Storage Technology, \$8,000,000, DOE, (2017-2019), (Co-PI)
2. A Net-Zero Nanogrid for the IIT Data Center, \$250,000, Willdan Energy, (2016-2017), (PI)
3. AC/DC Nanogrid for the IIT Data Center, \$250,000, ComEd, (2017-2018), (PI)
4. Ready, Set, Smart Communities, (\$480,000), Illinois Science and Energy Innovation Foundation, 2014-2015 (PI)
5. Illinois State Planning Roadmap, (\$300,000), DOE, 2015-2016, (PI)
6. A Nanogrid Design and Implementation for the IIT's Sporting Center, \$250,000, Willdan Energy, (2015-2016), (PI)
7. Market Mechanism for Managing Uncertainties Caused by High Levels of Renewable Generation, (\$300,000), NSF, 2015-2016, (Co-PI)
8. Battery Development for the DC Nanogrid, (\$100,000) Illinois Clean Energy Community Foundation, 2015, (PI)
9. 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)
10. A Resilient Self-Healing Cyber Security Framework for Power Grid, (\$1,200,000), DOE, 2014-2016, (Co-PI)
11. DC Microgrid Research and Implementation, (\$320,000), DOE with cost share provided by ComEd, 2014, (PI)
12. Research, Development, and Testing of a Master Controller with Applications to the Bronzeville Community Microgrid System, (\$1,200,000), DOE, 2014-2016, (Co-PI)
13. Microgrids for Economics and Resiliency of the Grid Enterprise, \$330,000, King Abdulaziz City for Science and Technology, 2014-2016, (Co-PI)
14. Wireless Networked Communication and Control System for Smart Traffic Lights in Smart Cities, (\$50,000), ComEd, 2015 (PI)
15. A World-Class Smart Grid Education and Workforce Training Center, (\$12,600,000 total), DOE, 2010-2014, (PI)
16. Perfect Power System at IIT, (\$12,000,000 total), DOE, 2008-2014 (PI)
17. Grid Resilience Implementation, (\$1,900,000), OSIssoft Corporation, 2014 (PI)
18. Wireless Sensors for Grid resilience, (20,000), ComEd, 2014 (PI)
19. Security-Constrained Co-Optimization Planning Algorithm for Electricity and Natural Gas Transportation Infrastructures, \$60,000, King Abdulaziz University, 2014 (Co-PI)
20. Next-Generation Expansion Planning Tool for Electric Power Systems, \$330,000, King Abdulaziz City for Science and Technology, 2014-2016, (Co-PI)
21. Application of the Energy Zones Mapping Tool, \$100,000, National Association of Regulatory Utility Commissioners (NARUC), 2014 (PI)
22. 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)
23. Long-term Load Forecasting, \$200,000, NARUC, 2014 (Co-PI)
24. Long-term Electric and Natural Gas Infrastructure Requirements in the Eastern Interconnection, \$220,000, NARUC, 2013-2014 (Co-PI)
25. Co-Optimization Planning of Transmission and Generation in the Eastern Interconnection, \$220,000, NARUC, 2012-2013 (Co-PI)
26. Illinois Smart Solar Initiative, \$220,000, Illinois Department of Commerce and Economic Opportunity, 2012-2013, (PI)

27. Charging Stations for Microgrid, \$289,965, Eaton Corporation, 2012 (PI)
28. Smart Grid Center Technology, \$411,881, S&C Electric Company, 2012 (PI)
29. Stochastic Optimization and Coordination Control of Demand Response for Enhancing the Secure and Economic Operation of Power Systems, \$300,000, National Science Foundation, 2011-2013, (Co-PI)
30. Battery and Charging Stations for Perfect Power System, (\$1,000,000 total), DOE, 2011-2012 (PI)
31. A World-Class University-Industry Consortium for Wind Energy Research, Education, and Workforce Development, (\$9,000,000 total), DOE, 2010-2013 (PI)
32. Illinois Smart Grid Regional Innovation Cluster, \$1,300,000, Small Business Administration (SBA), 2010-2012 (Co-PI)
33. Local Area Monitoring System (LAMS) for Microgrid, \$400,000, KERI, 2011-2013 (Co-PI)
34. 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)
35. Power Engineering Research and Education, \$5000,000, Grainger Foundation, 2007-2012 (PI)
36. Wind Integration in the U.S. Eastern Interconnection, \$750,000, DOE, 2009-2010 (PI)
37. Coordination of Renewable Hydro-Wind Units for Enhancing the Hydrothermal Power System Operation, \$350,000, National Science Foundation, 2008-2011 (Co-PI)
38. Security-Constrained Optimal Coordination of Generation and Transmission Maintenance Outage Scheduling, \$300,000, National Science Foundation, 2007-2010 (Co-PI)
39. Electricity Supply and Demand Analysis Model, Korea Power Exchange, \$130,000, 2007-2009 (PI)
40. Electrical Engineering Laboratory Development, \$80,000, Elite Electronics, 2006 (PI)
41. Wind Energy Technology Development in Illinois, \$50,000, Invenergy Corp, 2006 (PI)
42. Technical and Market Integration of Small Hydro Development, \$50,000, Orenco Corp. 2006 (PI)
43. Electrical Engineering Laboratory Development, \$400,000, Cherry Electronics, 2006 (PI)
44. Electrical Engineering Laboratory Development, \$500,000, Zebra Technology, 2005-2006 (PI)
45. Security Constrained Maintenance Scheduling, \$1,000,000, Siemens Corporation, 2006-2008 (PI)
46. Unit Commitment with AC Constraints, \$700,000, Nexant Corporation, 2004-2005 (PI)
47. Power Engineering Research, \$500,000, Grainger Foundation, 2004 (PI)
48. A Novel Approach for Improving Power Electronics and Electric Drives Curriculum, \$400,000, NSF, 2003 (Co-PI)
49. Leader Follower for Power Market Operations, \$150,000, NSF, 2003 (Co-PI)
50. PV-Battery System for Transmission Management, \$120,000, DOE, 2003 (PI)
51. Probabilistic Risk Evaluation of Transmission Systems, \$70,000, ComEd, 2002 (PI)
52. Virtual Counseling in Illinois High Schools, \$50,000, Illinois Board of Higher Ed, 2001 (PI)
53. Power Engineering Innovations, \$500,000, Grainger Foundation, (was matched by IIT for a total of \$1,000,000), 2000-2001 (PI)
54. Distributed Control of Power Systems, \$250,000, ONR, 1999 (Co-PI)
55. Illinois State Matching Grant Program, \$43,000, Illinois Board of Higher Education, 1999 (PI)
56. Power Engineering Laboratory Research, \$200,000, ComEd, 1998 (PI)
57. Interactive Risk-Based Planning for Dynamic Contingencies, \$150,000, EPRI, 1998 (Co-PI)
58. A Multi-Agent Approach to Feeder Reconfiguration, \$50,000, NSF, 1998 (Co-PI)
59. Grainger Power Engineering Laboratory at IIT, \$200,000, Grainger Foundation, 1997 (PI)
60. Derivatives and Generation Business Opportunities, \$32,000, EPRI, 1997 (Co-PI)
61. A WWW ALN for the Utility Industry, \$30,000, Sloan Foundation, 1997

62. Knowbots for Internet-Based Combat Training, \$125,892, ARO, 1996 (Co-PI)
63. Application of Game Theory to Power Systems, \$43,500, Siemens Corporation, 1996 (PI)
64. Real-Time Control and Operation of Electric Power Systems, \$155,000, DOE, 1995 (PI)
65. A Massively Parallel Population-Based Approach to Operations Scheduling, \$72,687, NSF, 1995 (PI)
66. Application of Fuzzy Set Theory to Security Constrained Optimal Reactive Power Control in a Multi-Area, \$49,000, NSF, 1994 (PI)
67. Railroad Transportation Curriculum Development for Enhancing the U.S. Infrastructure, \$180,000, NSF, 1993 (Co-PI)
68. Resource Scheduling and Commitment, \$25,000, Commonwealth Edison Company, 1993 (PI)
69. Special Machine Design, \$20,000, C.E. Neihoff Corporation, 1991 (Co-PI)
70. Electric Power Distribution Innovation, \$20,000, Commonwealth Edison Company, 1991 (PI)
71. Application of Fuzzy Logic to Power Plant Scheduling, \$7,500, TCC, 1991 (PI)
72. Application of Artificial Neural Networks in Multi-Area Generation Scheduling with Fuzzy Data, \$60,400, EPRI, 1990 (PI)
73. Scheduling of Power Interchange Between Interconnected Utilities, \$9,600, TCC, 1990 (PI)
74. Application of Expert Systems to Generation Control and Scheduling in Large Power Plants, \$24,000, TCC, 1989 (PI)
75. Expert System for Operational Scheduling and Generation Control, \$49,200, EPRI, 1988 (PI)
76. Application of Expert Systems to Operational Reliability Analysis in a Large Plant, \$10,000, ERIF, 1987 (PI)
77. Surge Protection of Underground Distribution Systems, \$22,500, Commonwealth Edison Company, 1986 (PI)

INDUSTRIAL CONSULTING ACTIVITIES

- Global Energy Market Solutions, Naperville, IL, 2003-present (President)
- Veriown Energy, Chicago, IL, 2014-present (Microgrid Design and Implementation)
- Willdan Energy, Anaheim, CA, 2015-present (Microgrid Development Studies and Implementation)
- Adica, Downers Grove, IL, 2010-2014 (Illinois Power Agency Studies, Smart Homes)
- American Wind Connection, CA, 2011-2013 (Offshore Wind Integration Studies, HVDC Modeling)
- TransElect, Chicago, IL, 2008-2012 (Wind Power Integration Planning)
- Acciona, Chicago, IL, 2008-2011 (Wind Power Integration Planning)
- Korea Power Exchange, Korea, 2007-2009 (Power System Planning)
- American Transmission Company, Waukesha, WI, 2006-2008 (Optimal Transmission Scheduling)
- LCG Consulting, Los Altos, CA, 2007-2009 (Security-Constrained Unit Commitment for Greece)
- Siemens Energy, Minneapolis, MN, 1994-2008 (Security-Constrained Unit Commitment)
- New England ISO, Holyoke, MA, 2006-2007 (Optimal Transmission Maintenance Scheduling)
- Nexant Corporation, San Francisco, CA, 2003-2006 (Day-ahead Commitment with AC Network)
- Exelon Corporation, Chicago, IL, 1990-2002 (Transmission Risk Analysis)
- KEMA Consulting, Fairfax, VA, 2001 (Evaluation of commercial software capabilities)
- Open Access Technology International, Inc., 2000 (Firm Transmission Right Studies)

GRADUATE RESEARCH STUDENTS AND VISITING SCHOLARS

(139 scholars including 65 PhD and 31 master's thesis students, and 43 visiting professors)

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

1. Q. Zhou (ongoing)
2. W. Gong (ongoing)
3. H. Nasiri (ongoing)
4. Z. Li (2017)
5. X. Zhang (2015) Operation and Planning of Coordinated Natural Gas and Electricity
6. L. Che (2015) Microgrids: Control, Operation, Coordination and Planning
7. M. Ganji (2015) Optimal Load Scheduling in Commercial and Residential Microgrids
8. M. Khodayar (2012) Coordination of Storage with Renewable Energy Resources
9. K. Aflaki (2012) Integration of Sustainable Energy in the Western Interconnection
10. M. Ghamdi (2012) Incorporating Reactive Power Market into the Day-Ahead Market
11. W. Tian (2011) Large-Scale Wind Integration in the Eastern Interconnection
12. A. Khodaei (2010) Transmission Switching in Power System Operation and Planning
13. S. Bahramirad (2010) Design and Implementation of Hydrokinetic Run-of-River Turbines
14. S. Kamalinia (2010) Expansion Planning of Fast-Response Units for Wind Integration
15. C. Liu (2010) Interdependency of Gas and Electricity in Restructured Power Systems
16. A. Lotfju (2009) DC Transmission System Integration for Enhancing Deliverability
17. L. Wu (2008) Stochastic Security-Constrained Unit Commitment
18. L. Abreu (2008) Wind Energy Coordination and Control
19. J. Roh (2008) Power System Planning in Restructured Power Systems
20. J. Wang (2007) Market Design Tools in Restructured Power Systems
21. H. Daneshi (2006) Market Simulation in Electric Power Systems
22. Y. Fu (2006) Security-Constrained Operational Planning in Power Systems
23. T. Li (2006) Competition and Risk Management in Power Markets
24. B. Lu (2004) SCUC with Flexible Operating Conditions
25. Z. Li (2002) Asset Valuation and Risk Analysis in Electric Power Systems
26. H. Yamin (2001) Options for Pricing Ancillary Services in a Deregulated System
27. M. Alomoush (1999) Auctionable Fixed Transmission Rights for Congestion Management
28. E. Rezania (1998) Contingency Constrained Available Transfer Capability Calculations
29. J. Kavicky (1997) Application of Parallel Path in Transmission Open Access
30. M. Marwali (1997) Coordinated Transmission and Generation Maintenance Scheduling
31. H. Ma (1997) Decomposition Techniques for AC Unit Commitment
32. R. Ferrero (1997) Game Theory Applications to Deregulated Power System Operation
33. K. Abdul-Rahman (1994) Applications of Fuzzy Sets to Power Systems Operation and Planning
34. C. Wang (1992) Generation Scheduling of Hydro-Thermal Systems with Uncertain Data
35. C. Nwankpa (1990) Stochastic Models for Power System Dynamic Stability Analysis
36. Z. Ouyang (1990) Artificial Intelligence for Short Term Power Generation Scheduling
37. N. Deeb (1989) Decomposition Approach to Optimal Reactive Power Dispatch
38. S. Tong (1989) Generation Scheduling in Large Scale Hydro Thermal Power Systems
39. N. Abbasy (1988) Optimal Set of Measurements for Estimation of System States

- 40. S. Shah (1988) Expert Systems Application to Power Network Security Analysis
- 41. J. Qiu (1987) Effect of Random Perturbations on Power Systems Reliability Evaluation
- 42. J. Banda (1985) Surge Protection in Underground Distribution Systems

Joint PhD Students with Other Universities

- 43. C. Liu, China Electric Power Research Institute, (2017)
- 44. Meng Song Meng, Southeast University, China (2017)
- 45. C. Shao, Xian Jiaotong University, China (2016)
- 46. Y. He, Zhejiang University, China (2016)
- 47. X. Shi, Hunan University (2016)
- 48. C. Feng, Zhejiang University, China (2016)
- 49. S. Rajamand, University of Kashan (2016)
- 50. S. Teimourzadeh, University of Tehran (2016)
- 51. M. Ban, Harbin University (2016)
- 52. Y. Wang, Zhejiang University, China (2015)
- 53. M. Velásquez, Universidad de los Andes, Colombia (2016)
- 54. X. Zhong, Hunan University, China (2015)
- 55. Y. Kabiri Renani, Sharif University of Technology, Iran (2015)
- 56. Z. Li, Tsinghua University, China (2015)
- 57. X. Shen, Tsinghua University, China (2014)
- 58. G. Haddadian, Stuart School of Business, IIT (2014)
- 59. M. Parvania, Sharif University of Technology, Iran (2013)
- 60. M. Albaijat, University of California Davis, USA (2012)
- 61. P. Maghouli, Sharif University of Technology, Iran (2011)
- 62. Farrokh Aminifar, Sharif University of Technology, Iran (2010)
- 63. A. Rajabi-Ghahnavieh, Sharif University of Technology, Iran (2010)
- 64. C. Sahin, Middle East Technical University, Turkey (2009)
- 65. O. Tor, Middle East Technical University, Turkey (2005)
- 66. R. Ferrero, University of San Juan, Argentina (1996)

Visiting Faculty and Post-doctoral Scholars

- 1. Dr. X. Wang, Shanghai Jiaotong University, China (2016-2017), Network Microgrids
- 2. Dr. X. Xu, Shanghai Jiaotong University, China (2017-2018), Microgrid Control
Professor X. Liu, Jinan University, China (2014-2015), Protection Systems for Microgrids
- 3. Professor Camilo Andrés Cortés, National University of Colombia (2015), Microgrids
- 4. Professor Bin Zhou, Hunan University (2015), Optimization Methods
- 5. Professor R. Jiao, North China Electric Power University (2015-2016), Power System Planning
- 6. Professor J. Wei, North China Electric Power University, China, (2014-2015), Smart Grid
- 7. Professor Z. Bie, Xi'an Jiaotong University, China (2014), Microgrids
- 8. Dr. M. Khodayar, GEMS Corporation (2012-2014), Power System Operation
- 9. Professor Q. Yan, North China Electric Power University, China (2011-2012), Electric Vehicles
- 10. Professor K. Nikravesh, Amirkabir University, Iran (2011-2012), Power System Stability
- 11. Professor K. Li, Hebei University of Technology, China (2011-2012), Microgrid Design

12. Dr. W. Tian, Willdan Corporation (2011-2016), Large Scale Wind Integration
13. Dr. A. Khodaei, GEMS Corporation (2011-2012), Power System Planning
14. Dr. H. Wu, Xian Jiaotong University, China (2011-2013), Demand Response Studies
15. Professor J. Shu, China Electric Power University, China (2009-2010): Power System Planning
16. Professor Z. Tan, North China Electric Power University, (2008-2009): Market Economics
17. Professor M. Pantos, University of Ljubljana, Slovenia (2008-2009): Power System Planning
18. Professor Y.H. Song, University of Liverpool, England (2008-2009): Computational Intelligence
19. Professor J. Liu, Sichuan University, China (2008-2009): Market Operation in China
20. Dr. T.K. Hahn, Kyungwon University, Korea (2008-2010): Market Operation in Korea
21. Dr. C. Sahin, Middle East Technical University, Turkey (2008-2009): Energy Interdependencies
22. Dr. F. Aminifar, Sharif University, Iran (2009-2010): Reliability Evaluation of PMUs
23. Professor J. Choi, Gyeongsang National University, Korea (2007-2009): Power System Planning
24. Professor J. Mantovani, Sao Paulo State University, Brazil (2006-2007): Power System Operation
25. Dr. Y. Fu, GEMS Corporation, (2006-2007) Outage Management in Electricity Markets
26. Dr. T. Li, GEMS Corporation, (2006-2007): Strategic Bidding in Electricity Markets
27. Dr. O. Tor, Middle East Technical University, Turkey (2004-2005): Restructuring Models for Turkey
28. Dr. H. Kim, Pusan University, Korea (2004-2006): Simultaneous Auction of Energy
29. Dr. Z. Li, GEMS Corporation, (2002-2003): Probabilistic Transmission Risk Analysis
30. Dr. Y. Wang, Tianjin University, China (1999-2003): Distributed Energy Management Systems
31. Dr. H. Shانهchi, Ferdowsi University, Iran, (2001-2002): Distributed Generation Technologies
32. Dr. M. Alomoush, Yarmouk University, Jordan, (1999-2000): Supervisory Control of Power System
33. Dr. M. Marwali, Agency for the Assessment and Application of Technology, Indonesia, (1998): Reliability-Centered Maintenance Scheduling in Deregulated Power Systems
34. Dr. X. Wang, Harbin Institute of Technology, China (1995-1996): Power Systems Voltage Stability
35. Dr. R. Ferrero, University of San Juan, Argentina (1994-1996): Game Theory Applications
36. Prof. S. Zhu, Tsinghua University, China (1994-1995): Power Plants Control and Operation
37. Dr. X. Bai, Electric Power Research Institute, China (1994-1995): Hydro-thermal Power Systems
38. Dr. K. Abdul-Rahman, Siemens (1993-1994): Energy Economics
39. Dr. I. Roytelman, Kiev Research and Design Institute, (1992-1993): Power Distribution Automation
40. Prof. M. Pourkermani, Sharif University of Technology (1991-1992): Special Purpose Machines
41. Dr. S. Li, Research Institute of Electric Light Source, China (1990-1991): SCADA in Power Systems
42. Prof. S. Sun, Tsinghua University, China (1986-1989): Power Systems Planning

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

- | | |
|--------------------------|---|
| 1. R. Al-Hassan (2016) | Intelligent Traffic Management |
| 2. H. Al-Hassan (2015) | Stochastic Modeling of Day-ahead Scheduling |
| 3. L. Che (2013) | Microgrid Control |
| 4. S. Ahmadinejad (2013) | Wind Energy Integration |
| 5. K. Vyas (2013) | Assessment of Microgrids for Developed and Developing Countries |
| 6. J. Camprubi (2011) | Sustainable Stadiums |
| 7. H. Noohi (2010) | Wind Integration in the Eastern Interconnection |
| 8. B. Noohi (2009) | Cyber Security issues in Power Systems |
| 9. S. Duggirala (2006) | Transmission Planning in Restructured Power Systems |

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|-----------------------------|--|
| 10. A. Khan (2006) | Wind Speed Forecasting using Wavelets |
| 11. V. Ellia (2005) | Agents in Electric Power System Operation |
| 12. D. Patil (2005) | Design of Batteries for Electric Cars |
| 13. J. Bui (2005) | Hydrogen Economy |
| 14. M. Phadke (2004) | Equivalent Energy Function Approach to Photovoltaic-Utility Systems |
| 15. A. Koshi (2004) | Superconductors in Electric Power Systems |
| 16. N. Sriram (2004) | Biomass in Electric Power Systems |
| 17. A. Joseph (2004) | Battery and Storage in Electric Power Systems |
| 18. S. Kullanthasamy (2004) | Asset Management in Power Systems |
| 19. S. Sood, (2004) | Power Generation at Brownfields |
| 20. S. Sheth (2004) | Geothermal Energy in Power Systems |
| 21. R. Pegallapati (2004) | Small Hydro as Green Power |
| 22. P. Ganesan (2003) | Transmission Management in Restructured Power Systems |
| 23. G. Ponnuvel (2003) | Impact of Losses on Transmission Pricing |
| 24. A. Eybalin (2002) | Restructuring Models for European Countries |
| 25. M. Albaijat (1999) | Optimal Power Flow Calculation with Evolutionary Programming |
| 26. N. Maricar (1998) | Object Oriented Programming Approach to Power System Visualization |
| 27. D. Mardijino (1998) | Application of Artificial Neural Networks to Short-Term Load Forecasting |
| 28. M. Marwali (1994) | Fuzzy Least Median Square Estimator in Power Systems |
| 29. M. Yesiloglu (1993) | Adaptive Control of Nonlinear Systems by Artificial Neural Networks |
| 30. K. Labudda (1992) | Fuzzy Linear Programming Approach to Power System State Estimation |
| 31. J. Qiu (1985) | A New Approach to Power Loss Minimization |

TECHNICAL PUBLICATIONS

(This list represents 524 technical publications including 339 journal papers as well as 185 conference papers, journal correspondence, and technical reports)

Journal Publications

1. Y. Li, Y. Zou, Y. Tan, Y. Cao, X. Liu, and M. **Shahidehpour**, "Optimal Stochastic Operation of Integrated Low-Carbon Electric Power, Natural Gas and Heat Delivery System," IEEE Transactions on Sustainable Energy, 2017
2. Y. Li, L. He, F. Liu, C. Li, Y. Cao, and M. **Shahidehpour**, "Flexible Voltage Control Strategy Considering Distributed Energy Storages for DC Distribution Network," IEEE Transactions on Smart Grid, 2017
3. Y. Guo, H. Gao, Q. Wu, H. Zhao, J. Østergaard, and M. **Shahidehpour**, "Enhanced Voltage Control of VSC-HVDC Connected Offshore Wind Farms Based on Model Predictive Control," IEEE Transactions on Sustainable Energy, 2017
4. H. Mahvash, S. Taher, M. Rahimi, and M. **Shahidehpour**, "A new approach for mitigating blade passing effects and power quality improvement of grid-connected DFIG wind turbine," Journal of Renewable and Sustainable Energy, 2017
5. Y. Wang, M. Shahidehpour, and C. Guo, Applications of Survival Functions to Continuous Semi-Markov Processes for Measuring the Reliability of Power Transformers," Journal of Modern Power System and Clean Energy, 2017
6. S. Taher, Z. Dehghani, M. Rahimi, M. **Shahidehpour**, Model Predictive Fuzzy Control for Enhancing FRT Capability of DFIG-based WT in Real-time Simulation Environment," Energy Systems, 2017
7. Y. Tan, Y. Li, Y. Cao, M. **Shahidehpour**, "Cyber-Attack on Overloading Multiple Lines: A Bilevel Mixed-Integer Linear Programming Model," IEEE Transactions on Smart Grid, 2017
8. Y. Kabiri Renani, M. Ehsan, M. **Shahidehpour**, "Optimal Transactive Market Operations with Distribution System Operators," IEEE Transactions on Smart Grid, 2017
9. D. Jin, Z. Li, C. Hannon, C. Chen, J. Wang, and M. **Shahidehpour**, "Towards a Cyber Resilient and Secure Microgrid Using Software-Defined Networking," IEEE Transactions on Smart Grid, 2017
10. C. Cortes, S. Contreras, and M. **Shahidehpour**, "Microgrid Topology Planning for Enhancing the Reliability of Active Distribution Networks," IEEE Transactions on Smart Grid, 2017
11. S. Teimourzadeh, F. Aminifar, M. Davarpanah, and M. **Shahidehpour**, "Adaptive Protection for Preserving Microgrid Security," IEEE Transactions on Smart Grid, 2017
12. H. Zhao, Q. Wu, J. Wang, Z. Liu, M. **Shahidehpour** and Y. Xue, "Combined Active and Reactive Power Control of Wind Farms based on Model Predictive Control," IEEE Transactions on Energy Conversion, 2017
13. S. Falahati, S. Taher, and M. **Shahidehpour**, "Grid Secondary Frequency Control by Optimized Fuzzy Control of Electric Vehicles," IEEE Transaction on Smart Grid, 2017
14. Y. Tan, Y. Li, Y. Cao, and M. **Shahidehpour**, "Integrated Optimization of Network Topology and DG Output for MVDC Distribution Systems," IEEE Transaction on Smart Grid, 2017
15. C. Feng, Z. Li, M. **Shahidehpour**, F. Wen, W. Liu and X. Wang, "Decentralized Short-term Voltage Control in Active Power Distribution," IEEE Transaction on Smart Grid, 2017

16. Y. Cao, X. Shi, Y. Li, Y. Tan, M. **Shahidehpour**, and S. Shi, "A Simplified Co-simulation Model for Investigating Impacts of Cyber-Contingency on Power System Operations," IEEE Transaction on Smart Grid, 2017
17. C. Shao, X. Wang, M. **Shahidehpour**, X. Wang, B. Wang, "Integrated Planning of Electricity and Natural Gas Transportation Systems for Enhancing the Power Grid Resilience," IEEE Transaction on Power Systems, 2017
18. C. He, L. Wu, T. Liu, M. **Shahidehpour**, "Robust Co-optimization Scheduling of Electricity and Natural Gas Systems via ADMM," IEEE Transaction on Sustainable Energy, 2017
19. S. Teimourzadeh, M. Davarpanah, F. Aminifar, and M. **Shahidehpour**, "An Adaptive Auto-Reclosing Scheme to Preserve Transient Stability of Microgrids," IEEE Transaction on Smart Grid, 2017
20. X. Shen, M. **Shahidehpour**, S. Zhu, Y. Han, J. Zheng, "Multi-stage Planning of Active Distribution Networks Considering the Co-optimization of Operation Strategies," IEEE Transaction on Smart Grid, 2017
21. S. Falahati, S. Taher, and M. **Shahidehpour**, "Smart Deregulated Grid Frequency Control in Presence of Renewable Energy Resources by EVs Charging Control," IEEE Transaction on Smart Grid, 2017
22. S. Parhizi, A. Khodaei, and M. **Shahidehpour**, "Market-based vs. Price-based Microgrid Optimal Scheduling," IEEE Transaction on Smart Grid, 2017
23. H. Wu and M. **Shahidehpour**, "Applications of Wireless Sensor Networks for Area Coverage in Microgrids," IEEE Transaction on Smart Grid, 2017
24. Z. Li, M. **Shahidehpour**, S. Bahramirad, A. Khodaei, "Optimizing Traffic Signal Settings in Smart Cities," IEEE Transaction on Smart Grid, Vol. 8, No. 5, pp. 2382 – 2393, Sept. 2017
25. L. Che, X. Zhang, M. **Shahidehpour**, A. Alabdulwahab, and Y. Al-Turki, "Optimal Planning of Loop-Based Microgrid Topology," IEEE Transaction on Smart Grid, Vol. 8, No. 4, pp. 1771-1781, July 2017
26. H. Zhao, Q. Wu, S. Huang, M. **Shahidehpour**, Q. Guo, H. Sun, "Fatigue Load Sensitivity Based Optimal Active Power Dispatch for Wind Farms," IEEE Transaction on Sustainable Energy, Vol. 8, No. 3, pp. 1247 – 1259, July 2017
27. A. Ketabi, S. Rajamand, M. **Shahidehpour**, "Power Sharing in Parallel Inverters with Different Types of Loads," IET Journal on Generation, Transmission & Distribution, Vol. 11, No. 10, pp. 2438-2447, July 2017
28. C. Shao, X. Wang, M. **Shahidehpour**, X. Wang, and B. Wang, "Security-Constrained Unit Commitment with Flexible Uncertainty Set for Variable Wind Power," IEEE Transaction on Sustainable Energy, Vol. 8, No. 3, pp. 1237-1246, July 2017
29. Y. Kabiri Renani, M. Ehsan, M. **Shahidehpour**, "Day-ahead Self-Scheduling of a Transmission-Constrained GenCo with Variable Generation Units using the Incomplete Market," IEEE Transaction on Sustainable Energy, Vol. 8, No. 3, pp. 1260-1268, July 2017
30. Z. Li, M. **Shahidehpour**, F. Aminifar, "Cyber Security in Distributed Power Systems," IEEE Proceedings, Vol. 105, No. 7, pp. 1367-1388, July 2017
31. Z. Li, M. **Shahidehpour**, F. Aminifar, A. Alabdulwahab, and Y. Al-Turki, "Networked Microgrids for Enhancing the Power System Resilience," IEEE Proceedings, Vol. 105, No. 7, pp. 1289-1310, July 2017

32. X. Zhang, M. **Shahidehpour**, A. Alabdulwahab, and A. Abusorrah, "Reliability-based Optimal Planning of Electricity and Natural Gas Interconnections for Multiple Energy Hubs," IEEE Transaction on Smart Grid, Vol. 8, No. 4, pp. 1658-1667, July 2017
33. M. **Shahidehpour**, Z. Li, W. Gong, S. Bahramirad, and M. Lopata, "A Hybrid ac/dc Nanogrid: The Keating Hall Installation at the Illinois Institute of Technology," IEEE Electrification Magazine, Vol. 5, No. 2, pp. 36-46, June 2017
34. G. Haddadian and M. **Shahidehpour**, "Portrait of a DG-Dominated World in Electricity Infrastructure," IEEE Electrification Magazine, Vol 5, No. 2, pp. 86-88, June 2017
35. M. **Shahidehpour**, Z. Li, S. Bahramirad, Z. Li, W. Tian, "Operation and Control of IIT-Bronzeville Networked Microgrids," IEEE Power and Energy Magazine, Vol. 15, No. 4, pp. 63-71, June 2017
36. L. Che, X. Zhang, M. **Shahidehpour**, A. Alabdulwahab, and A. Abusorrah, "Optimal Interconnection Planning of Community Microgrids with Renewable Energy Sources," IEEE Transaction on Smart Grid, Vol. 8, No. 4, pp. 1054-1063, May 2017
37. A. Alabdulwahab, and A. Abusorrah, X. Zhang, M. **Shahidehpour**, "Stochastic Security-Constrained Scheduling of Coordinated Electricity and Natural Gas Infrastructure," IEEE Systems Journal, 2017
38. S. A. Taher, M. Zolfaghari, C. Cho, M. Abedi, M. **Shahidehpour**, "A New Approach for Soft Synchronization of Microgrid Using Robust Control Theory," IEEE Transaction on Power Delivery, Vol. 32, No. 3, pp. 1370-1381, June 2017
39. P. Burgess, M. Shahidehpour, M. Ganji, D. Connors, "Remote Power Units for Off-Grid Lighting and Urban Resilience," IEEE Electrification Magazine, Vol. 30, No. 4, Pages 16-26, May 2017
40. Z. Li and M. **Shahidehpour**, "Deployment of Cybersecurity for Managing Traffic Efficiency and Safety in Smart Cities," Electricity Journal, Vol. 30, No. 4, pp. 52-61, May 2017
41. D. Jin, C. Hannon, Z. Li, P. Cortes, S. Ramaraju, P. Burgess, N. Buch, and M. **Shahidehpour**, "Smart Street Lighting System: A platform for Innovative Smart City Applications and a New Frontier for Cyber-Security," Electricity Journal, Vol. 29, pp. 28-35, May 2017
42. X. Liu, M. **Shahidehpour**, Z. Li, X. Liu, Y. Cao, and W. Tian, "Protection Scheme for Loop-based Microgrids," IEEE Transaction on Smart Grid, Vol. 8, No. 3, pp. 1340-1349, May 2017
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58. H. Yamin, K. Al-Tallaq, and M. **Shahidehpour**, "FERC 2000," in Proceedings of the 2002 Large Engineering Systems Conference on Power Engineering, Nova Scotia, Canada, June 2002
59. M. **Shahidehpour**, "Teaching Restructuring Courses at Illinois Institute of Technology," in Proceedings of the 2002 IEEE Summer Meeting, Chicago, IL, July 2002
60. M. **Shahidehpour**, "Distributed Resources for Transmission Congestion and Expansion Planning," in Proceedings of the 2002 IEEE Summer Meeting, Chicago, IL, July 2002
61. M. **Shahidehpour**, "Operational Reliability: Objective or Constraint," in Proceedings of the 2002 IEEE Summer Meeting, Chicago, IL, July 2002
62. A. Sedaghati, H. Shanechi, M. **Shahidehpour**, "Transmission Pricing in Restructured Power Systems," in Proceedings of 10th Iranian Conference on Electrical Engineering, Iran, May 2002
63. A. Sedaghati, H. Shanechi, and M. **Shahidehpour**, "A Novel Method for Allocation of Transmission Network Revenue Requirement in a Competitive Power Market," in Proceeding of the 10th Iranian Conference on Electrical Engineering, Iran, May 2002
64. M. **Shahidehpour**, H. Daneshi, "Market Tools in Electric Power Systems," in Proceedings of 10th International Conference on Electrical Engineering, Tehran, Iran, May 2002
65. R. Ferrero, M. **Shahidehpour**, "Generation Reserve Allocation and Pricing," in Proceedings of the IASTED Conference on Power and Energy Systems, Marina Del Rey, CA, May 2002

66. H. Daneshi, S. Afsharnia, M. **Shahidehpour**, "Applications of ANN to Power Generation Scheduling," in Proceedings of the 16th International Power Systems Conference, Tehran, Iran, Oct. 2001
67. H. Daneshi, S. Afsharnia, M. **Shahidehpour**, "Applications of Fuzzy Sets to Power Generation Scheduling," in Proceedings of the 16th International Power Systems Conference, Tehran, Iran, Oct. 2001
68. S. Zhu, S. Shen, Y. Zhen, Q. Ai, L. Li, and M. **Shahidehpour**, "The Study of genetic Algorithm for Load Modeling," in Proceedings of IPEC 99, Singapore, pp. 787-792, Oct. 1999
69. H. Yamin and M. **Shahidehpour**, "Competitive Energy and Ancillary Service Markets," in Proceedings of the 31st North American Power Symposium, San Luis Obispo, CA, Oct. 1999
70. Alomoush, M., and **Shahidehpour**, M., "Impact of Wheeling Transactions on Zonal Congestion with FTR," in Proceedings of the 1999 Large Engineering Systems Conference on Power Engineering, Nova Scotia, Canada, pp. 231-236, June 1999
71. M. Alomoush and M. **Shahidehpour**, "Exact Extension of Contingency Area using Successive Solutions and Distribution Factors," in Proceedings of the 1999 American Power Conference, Chicago, IL, Apr. 1999
72. N. Maricar and M. **Shahidehpour**, "Visualization Approach to Power System Operation," in Proceedings of the 1999 American Power Conference, Chicago, IL, Apr. 1999
73. H. Yamin and M. **Shahidehpour**, "Risk Management in Electricity Pricing in a Deregulated Power Market Utilizing a Probabilistic Model," in Proceedings of the Third Electrical Engineering Conference, Mutah University, Jordan, Apr. 1999
74. M. Albaijat and M. **Shahidehpour**, "Fuzzy Applications to Power System," in Proceedings of the Third Electrical Engineering Conference, Mutah University, Jordan, Apr. 1999
75. M. Albaijat and M. **Shahidehpour**, "Evolutionary Programming to Solve Optimal Power Flow," in Proceedings of the 1999 American Power Conference, Chicago, IL, Apr. 1999
76. H. Yamin and M. **Shahidehpour**, "An Overview of Ancillary Services and Alternative Auction Designs in a Deregulated Environment," in Proceedings of the 1999 American Power Conference, Chicago, IL, Apr. 1999
77. N. Maricar and M. **Shahidehpour**, "An Object Oriented Programming Approach to Power System Network Analysis Through Visualization," in Proceedings of the Third workshop on Electro-Communication and Information, Japan, Mar. 1999
78. N. Maricar and M. **Shahidehpour**, "Digraph Method: A Graphical Representation for Engineering Network Analysis in Power Systems," in Proceedings of the Third workshop on Electro-Communication and Information, Japan, Mar. 1999
79. H. Yamin, M. **Shahidehpour** and A. Keyhani, "Electricity Pricing Utilizing Transmission Constrained Unit Commitment and Game Theory in a Deregulated Power Marketplace," in Proceedings of 1999 International Conference on System Sciences, Hawaii, Jan. 1999
80. H. Yamin and M. **Shahidehpour**, "Generation Scheduling in an Uncertain Environment for Deregulated Systems Based on Game Theory," in Proceedings of the 1998 Large Engineering Systems Conference on Power Engineering, pp. 311-316, Nova Scotia, Canada, June 1998
81. M. Alomoush and M. **Shahidehpour**, "Decision in a Deregulated Power Environment Based on Fuzzy Approach," in Proceedings of the 1998 Large Engineering Systems Conference on Power Engineering, pp. 305-310, Nova Scotia, Canada, June 1998

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83. M. Marwali and M. **Shahidehpour**, "Short-Term Transmission Line Maintenance Scheduling," in Proceedings of the 1998 Large Engineering Systems Conference on Power Engineering, pp. 48-53, Nova Scotia, Canada, June 1998
84. J. Kavicky and M. **Shahidehpour**, "Characterizing and Modeling Subarea-Level Energy Transactions," in Proceedings of the 1998 American Power Conference, pp. 441-445, Chicago, IL, April 1998
85. H. Ma and M. **Shahidehpour**, "Transmission Constrained Unit Commitment based on Benders Decomposition," in Proceedings of the 1997 American Control Conference, pp. 104-109, Albuquerque, NM, June 1997
86. J. Kavicky and M. **Shahidehpour**, "Simplifying Generator Siting and Contractor Options," in Proceedings of the 1997 American Power Conference, pp. 120-131, Chicago, IL, April 1997
87. E. Rezania and M. **Shahidehpour**, "A Fast Contingency Screening Method for Determination of Available Transfer Capability in Deregulated Environment," in Proceedings of the 1997 American Power Conference, pp. 104-109, Chicago, IL, April 1997
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93. 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
94. 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
95. V. Ramesh and M. **Shahidehpour**, "Scheduling Power with Infrastructure Bottlenecks," in Proceedings of NSF Workshop on Electric Power Systems Infrastructure, Pullman, WA, Oct. 1994
96. 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, Apr. 1994
97. 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

98. 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
99. 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
100. 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
101. C. Wang, M. **Shahidehpour** and R. Adapa, "Optimal Power Generation Scheduling," in Proceedings of the 1993 American Power Conference, Chicago, IL, April 1993
102. 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
103. 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
104. 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, Apr. 1992
105. 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, Apr. 1992
106. C. Wang and M. **Shahidehpour**, "Multi-Area Unit Commitment with Ramp Limits," in Proceedings of 1992 American Power Conference, pp. 1075-1083, Chicago, IL, Apr. 1992
107. 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, Apr. 1992
108. 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
109. 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
110. 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
111. N. Deeb and M. **Shahidehpour**, "Multi-Area Reactive Power Control Using Cross Decomposition," in Proceedings of 1991 American Control Conference, Boston, MA, June 1991
112. 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, Apr. 1991
113. C. Wang and M. **Shahidehpour**, "Application of Neural Networks in Generation Scheduling with Fuzzy Data," in Proceedings of 1991 American Power Conference, Chicago, IL, Apr. 1991

114. 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
115. 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
116. 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
117. 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
118. C. Wang and M. **Shahidehpour**, "Unit Commitment by Neural Networks," in Proceedings of 1990 American Power Conference, Vol. 52, pp. 245-250, Chicago, IL, Apr. 1990
119. 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, Apr. 1990
120. 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
121. 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
122. 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
123. 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
124. 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
125. 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
126. 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
127. 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
128. 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, Apr. 1989
129. 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, OR, May 1989

130. 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
131. 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
132. 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
133. 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
134. 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
135. 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
136. 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, Apr. 1987
137. 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
138. 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, Apr. 1986
139. 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
140. M. **Shahidehpour**, "Benefits of Interconnection in Three-Area Power Systems, in Proceedings of the 1985 Midwest Power Symposium, Houghton, MI, Oct. 1985
141. 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
142. 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
143. 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

1. 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

2. 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
3. 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>
4. 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

PROFESSIONAL ACTIVITIES

- IEEE Transactions on Smart Grid (Founding Editor-in-Chief, 2008-2015)
- IEEE PES (Vice President-Publications, 2008-2012)
- IEEE PES Distinguished Lecturer (2004-present)
- IEEE PES Outstanding Power Engineering Educator Award Committee (Chair, 2014-2017)
- IEEE PES CSEE Yuhsiu Ku Award Committee (Member, 2015-present)
- IEEE PES Power System Operations Committee (Chair, Vice-Chair, Secretary, 2003-2009)
- IEEE PES Prize Paper Awards Committee (Chair, 2002-2007)
- IEEE PES Operation Methods Subcommittee (Chair, 1996-1998)
- IEEE PES Task Force on Power System Protection Reliability (Chair, 1987-1993)
- IEEE PES Task Forces on Bibliography and Bulk Transmission Reliability (Chair, 1985-1987)
- IEEE PES Subcommittee on Applications of Probability Methods (Secretary, 1984-1989)
- IEEE PES Chicago Chapter (Seminar Chair, 1986-1987)
- IEEE PES, Chicago Chapter (Program Chair, 1985-1986)
- IEEE Technical Activities Board (Chair, Transactions Committee, 2004-2006)
- IEEE Fellow Committee (Member, 2003-2006)
- IEEE Systems, Man & Cybernetics Society (Chair of the Chicago Chapter, 1992-1993)
- IEEE Region 4 Student Paper Contest (Chair, 1992-1993)
- IEEE Admissions and Advancement Committee (Member, 1992-1993)
- IEEE PowerTech, Netherlands (Member of the Technical Committee, 2015)
- IEEE EUROCON, Croatia (Member of the Technical Committee, 2013)
- IEEE Conference on Signal Processing, Computing and Control (Member of the Tech Com., 2013)
- IEEE CERA Conference, India (Member of the Technical Committee, 2012)
- IEEE Smart Grid Technologies Conference, Washington (General Chair, 2012)
- IEEE PowerTech Conference, France (Member of the Technical Committee, 2013)
- IEEE Great Lakes Symposium on Smart Grid and the New Energy Economy (Chair, 2011-2014)
- IEEE Smart Grid Technologies Conference, Sweden (Member of the Technical Committee, 2010)
- IEEE DRPT (Member of the Advisory Committee of the 2007, China)
- IEEE SMC (Member of the Technical Committee of, Taiwan, 2003-2006)
- IEEE Jordan Conference (Member of the Technical Program Committee, Jordan 2005)
- IEEE PICA Conference (Member of the Technical Committee, 1994-2002)
- IEEE T&D Conference (Member of the Executive Committee, 1993-1994)
- IEEE SMC Conference (Vice-Chair, 1991-1992)
- PSCC (Member of the Technical Committee, Greece, 2011)
- ELECO, Turkey (Member of the Technical Committee of the 2003-2007)
- LASCOPE03, Canada (Member of the Technical Program Committee, 2003)
- American Power Conference, Chicago (Associate Director, 1984-1991)

Activities at National Electrical Engineering Honor Society (HKN)

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

Other Activities

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| 2011 | Member of the United Nations Commission on Microgrid Studies |
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External Examiner of Academic Programs

1. 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 Florida, University of Texas, University of Saskatchewan, University of Denver.
2. 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.
3. External Reviewer, American University of Beirut Graduate Degree program in Computer and Communication Engineering
4. External Reviewer of Research Projects at the Kuwait University, University of Petroleum and Minerals in Saudi Arabia
5. 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 900 papers) for IEEE Transactions on Power Systems, 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 Optimization Theory and Applications, Canadian Electrical and Computer Engineering Journal, International Journal of Electrical Power and Energy Systems, 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, Power System Computation Conference, Journal of Electric Power Systems Research
- Technical reviewer for John Wiley, Qatar Foundation, EPRI, DOE, AFOSR, NSF and ONR (reviewed technical proposals and participated in workshops and review panels)

Technical Sessions Organized at National Meetings

1. Load Management: 1984 American Power Conference, Chicago, IL
2. Environment: 1985 American Power Conference, Chicago, IL
3. System Reliability Evaluation: 1985 IEEE/PES Summer Meeting, Vancouver, Canada
4. Transmission System Reliability: 1986 IEEE/PES Summer Meeting, Mexico City
5. Electrical Transmission: 1986 American Power Conference, Chicago, IL
6. Expert Systems in Power Systems: 1988 International Conference on Expert Systems, Switzerland
7. Production Costing: 1990 IEEE/PES Winter Meeting, Atlanta, GA
8. Power System Operations Topics: 1990 IEEE/PES Winter Meeting, Atlanta, GA
9. Real and Reactive Power Dispatch: 1991 IEEE/PES Summer Meeting, Minneapolis, MN
10. Neural Networks: 1991 American Power Conference, Chicago, IL
11. Bulk Power System Reliability: 1991 IEEE/PES Summer Meeting, San Diego, CA
12. Power Electronics Applications: 1991 North American Power Symposium, Carbondale, IL
13. Real Time Pricing and Optimal Scheduling: 1992 IEEE/PES Winter Meeting, New York, NY
14. System Operations Topics: 1992 IEEE/PES Winter Meeting, New York, NY
15. Advances in Reliability Computation: 1992 IEEE/PES Winter Meeting, New York, NY
16. Power System Economic Evaluation: 1992 IEEE/PES Summer Meeting, Seattle, WA
17. Power Systems Dynamics: 1992 IEEE International Conference on SMC, Chicago, IL
18. Poster Panel Session: 1992 American Power Conference, Chicago, IL
19. Fuzzy Systems: 1993 Conference on Expert Systems Applications to Power Systems, Australia
20. Poster Panel Session: 1993 American Power Conference, Chicago, IL
21. System Operations Topics: 1993 IEEE/PES Summer Meeting, Vancouver, Canada
22. System Operations: 1994 IEEE/PES Winter Meeting, New York, NY
23. Power System Stability: 1994 American Power Conference, Chicago, IL
24. Operations Support-ANN Topics: 1994 IEEE/PES Winter Meeting, New York, NY
25. Hydro Scheduling: 1995 PICA, Salt Lake City, UT
26. Economic Generation Dispatch: 1996 IEEE/PES Summer Meeting, Denver, CO
27. Risk Management in Deregulated Systems: 1996 IEEE/PES Summer Meeting, Denver, CO
28. Unit Commitment: 1997 PICA, Columbus, Ohio
29. State Estimation: 1998 Large Engineering Systems Conference, Halifax, Canada
30. Operation Methods: 1999 IEEE/PES Winter Meeting, New York, NY
31. Hydro Applications: 1999 PICA, Santa Clara, CA
32. Analytical Methods: 1999 PICA, Santa Clara, CA
33. Tools for Restructured Power Systems: 2003 IEEE/PES Annual Meeting, Toronto, Canada
34. Power Market Operations: 2010 IEEE Smart Grid Innovation Technologies, Gaithersburg, MD
35. Storage: 2011 Cigre Conference on Electric Power System of the Future, Bologna, Italy