ANURAG K. SRIVASTAVA, Ph. D.

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Adjunct Professor, Washington State University
https://sgdril.eecs.wsu.edu/research-group/director/

Senior Scientist, Pacific Northwest National Lab,
https://energyenvironment.pnnl.gov/staff/staff_info.asp?staff_num=3702

Google Scholar: https://scholar.google.com/citations?user=_GtNYPMAAAAJ&hl=en

October, 2021

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I. Professional Profile

- *Research*
  - High impact research projects resulted in patented tools installed at the electric utility control center or used by utility/ vendors (e.g., Southern California Edition, AVISTA, EPRI, OPAL-RT, Idaho Power)
  - Published 299 peer-reviewed research articles (112 Journals and 187 conference papers), 12 book chapters, 3 books, and 3 patents totaling *6261 citations* (i10-index: 119, h-Index: 39).
  - Serving/Served as PI, Co-PI for research funding/grants of more than $50 million total (*my research expenditure: ~$8.4M* till Spring 2021) over 15 years supported by the National Science Foundation (NSF), Department of Energy (DOE), Power System Engineering Research Center (PSERC), Electric Power Research Institute (EPRI), Pacific Northwest National Lab, Idaho National Lab, National Renewable Energy Lab, Power Industry Members (AVISTA, PGE, SEL, Siemens, CISCO, RTE-France), Office of Naval Research (ONR), and Department of Homeland Security (DHS).
  - Supervised/co-supervised 53 graduate theses (16 Ph.D.+ 18 M.S.@ WSU; 3 Ph.D. + 16 M.S.@ MSU) and existing research group at WVU/WSU with 15 members (9 Ph.D. + 3 post-docs + 3 interns).
  - 45+ Keynotes/ tutorials/ IEEE Distinguish Lecture in 15 countries and additional 155+ invited talks and panels at multiple conferences
  - WSU EECS Faculty Research Excellence Award, 2020

- *Teaching*
  - National Academy of Engineers (NAE) FOEE fellow, 2012
  - Developed several new course materials and lab material funded by DOE, NSF, PSERC, EPRI

- *Service*
  - Distinguished Lecturer, IEEE PES for PMU Applications and Resiliency, 2014- Present
  - Technical Co-Chair, IEEE SmartGridComm 2021
  - Associate Editor, IEEE Transactions on {Power Systems, Industry Applications}, 2018-present
  - Organizing Committee Member, NSF Sponsored “Forging Connections between Machine Learning, Data Science, & Power Systems Research”, 2020
  - Co-Chair, Computational Challenges and Solutions for Implementing Distributed Optimization in the Power System WG, AMPS, CAMS, IEEE PES, 2020
  - Vice-Chair, TF on Operational Tools for Enabling Resiliency, PSOPE, IEEE PES, 2020
  - Co-Chair, IEEE WS on “Modeling and simulation of Cyber-Physical Energy Systems”, 2016-2020
  - Chair, Voltage stability working group, PSDP, IEEE PES, 2019
  - Chair, IEEE PES power and energy education committee, 2019
  - Vice-Chair, Power system operation SC, IEEE PES, 2019
  - Chair, NSF sponsored “Data analytics workshop for the power grid resiliency” 2018
  - Chair, Synchrophasor Applications for the Power Grid Operation TF, BPSO, IEEE PES, 2018
  - Chair, Siemens sponsored “Data analytics for the smart grid” workshop, 2017
  - Co-chair, Microgrid applications and implementation working group, IEEE PES, 2017
  - Chair, North American Power Symposium sponsored by NSF and IEEE, 2014
  - Chair, IEEE WS on Testing and validation of synchrophasor devices and applications, 2012
  - Member, CIGRE C2.25: Operational Resilience; C4.47: Power System Resilience; D2.52: AI Application and Technology in Power Industry; C4C2.58: Voltage Stability Assessment; C2.18: Wide Area Monitoring and Control for Decision Support.

- *Other Activities*
  - Developed smart grid demonstration and research investigation lab (SGDRIL) worth more than $3M
  - Certificate of highest standard for academic achievement during Doctoral Studies

II. Research/ Teaching Interests

- My research interests mainly relate to '***Power System Operation and Control***' in the context of the evolving smart grid. While the smart grid is a broad term, my goals relate to using smart grid data such as synchrophasor measurements to develop advanced computational algorithms for power system operation and control specifically towards resiliency. The approach developed by my research group include ***physics-driven machine learning*** for power grid operation and control. My existing research projects with external and internal collaborators relate to the followings:

- **Power System Operation and Control for Enhanced Resiliency and Sustainability**
  - ***Data-driven computational algorithms to enable security, resiliency, sustainability and voltage stability of the power grid (transmission systems with microgrid/ distribution)***
  - ***Real-time modeling and analysis of cyber-power systems for quality-aware synchrophasor applications and resiliency analysis***
  - ***Industry-grade tool development for electric grid resiliency, smart grid data analytics***
- ***Engineering Education for Broadening Minority Participation and Pre-Engineering Outreach***

III. Work Experience

- *Raymond J. Lane Professor and Chairperson*
  - *Lane Department of Computer Science and Electrical Engineering,* ***West Virginia University,*** *Morgantown, WV 26506 (7/21-present)*
- Adjunct Professor of Electrical Engineering
  - The School of Electrical Engineering and Computer Science, ***Washington State University***, Pullman, WA, USA, (07/21-present)
- Associate Professor of Electrical Engineering
  - The School of Electrical Engineering and Computer Science, ***Washington State University***, Pullman, WA, USA, (08/15 – 06/21)
  - Sabbatical leave (2016-2017 academic year)
- Senior Scientist
  - Energy and Environment Directorate, ***Pacific Northwest National Laboratory***, Richland, WA, USA, (08/19 -present)
- Visiting Researcher/ Consultant
  - ***Peak Reliability Coordinator***, Vancouver, WA, USA, (7/18 – 8/18)
- Guest Professor
  - E.ON Energy Research Center, ***RWTH Aachen University***, Aachen, Germany (6/17 – 7/17)
- Visiting Researcher
  - R&D, ***Schweitzer Engineering Lab***, Pullman, WA, USA, (4/17 – 5/17)
- Visiting Scientist
  - R&D, ***Réseau de transport d'électricité (RTE),*** Versailles, France, (3/17 – 4/17)
- Visiting Scientist
  - Energy Infrastructure, ***Pacific Northwest National Lab***, Richland, WA, USA, (1/17 – 2/17)
- Visiting Scientist
  - WAMS and Network Group, ***GE Grid Solutions***, Redmond, WA, USA, (11/16 – 1/17)
- Visiting Research Scientist
  - Power and Energy Systems, ***Idaho National Lab***, Idaho Falls, ID, USA, (06/16 – 10/16)
- Visiting Professor and Consultant
  - Applied Solutions, Operation and Market, ***PJM Interconnections***, Audubon, PA, USA, (08/16)
- Visiting Professor of Power Engineering
  - Active Adaptive Control Lab, ***Massachusetts Institute of Technology***, Cambridge, MA, USA, (07/16)
- Assistant Professor of Electrical Engineering
  - The School of Electrical Engineering and Computer Science, ***Washington State University***, Pullman, WA, USA, (08/10 – 08/15)
- Assistant Research Professor of Electrical Engineering

  - Electrical and Computer Engineering Department, ***Mississippi State University***, Mississippi State, MS, USA, (09/05-08/10)
- Graduate Research Assistant and Teaching Assistant
  - Electrical and Computer Engineering Department, ***Illinois Institute of Technology***, Chicago, IL (08/01- 07/05)
- Senior Research Associate
  - Department of Electrical Engineering, ***Indian Institute of Technology***, Kanpur, India (08/99-08/01)
- Research Fellow
  - School of Environment, Resources and Development, ***Asian Institute of Technology***, Thailand (02/00 – 04/00 & 03/01- 05/01)
- Teaching Assistant
  - Department of Electrical Engineering, ***Indian Institute of Technology***, Varanasi, India (01/98 – 05/99)
- Electrical Engineering Intern
  - ***General Electric Company*** (GEC)-ALSTOM, Allahabad, India (05/96-07/96)

IV. Educational Qualifications

- Illinois Institute of Technology (IIT), Chicago, IL, USA,
  - Ph.D., July 2005, GPA: 4.0/4.0, Distinction with Honor
  - Electrical Engineering, Power Systems, Advisor: Dr. Alexander J. Flueck
  - Dissertation: Voltage Collapse Contingency Screening and Power Grid Vulnerabilities

- Indian Institute of Technology, (Banaras Hindu University), Varanasi, UP, India
  - Master of Technology, July 1999, GPA: 3.7/4.0, Distinction with Honor
  - Electrical Engineering, Specialization in Control Systems, Advisor: Dr. T. Nagaraja
  - Thesis: Study of Relative Performance of Shrinking Span Fuzzy Logic Controller

- Harcourt Butler Institute of Technology (HBTI), Kanpur, UP, India
  - Bachelor of Technology, May 1997, GPA: 3.8/4.0, Electrical Engineering

V. Students Graduated/ Advising

V.A. Post-Doctoral Fellows and Visiting Scholars

Visiting Scholar at WVU

[1]. Subir Majumder, Engineering Scientist, September 2021 – Present
[2]. Sajan K. Sadanandan, Engineering Scientist, October 2021 – Present

Visiting Scholar at WSU

[3]. Sanjeev Pannala, Post-Doc Fellow, July 2019 – Present

V.B. Existing Graduate Students

Ph.D. Students at WVU

[1]. Partha Sarkar, December 2022
[2]. Md. Mustafa Hussain, December 2024

Ph.D. Students at WSU

[3]. Niloy Patari, December 2021
[4]. Amir Gholami, December 2022
[5]. Chuan Qin, December 2022
[6]. Arman Ahmed, December 2022 (Co-advised with Dr. Yinghui Wu) (PNNL Fellow)
[7]. Srayashi Konar, December 2022
[8]. Linli Jia, May 2023
[9]. Ceeman Vellaithurai, May 2023

M.S. (Non-Thesis and Professional Masters) at WSU

[1]. Meshal Marzooq, December 2021

V.C. Existing Undergraduate and Graduate Interns at WSU

[1]. Brian Ha, REU Student (Spring 2021- Present)
[2]. Ramyasai S. Bhavirisetty (Spring 2021- present)
[3]. Rushabh Shah (Fall 2021 – Present)

V.D. Former Visiting Faculty and Post-Doctoral Fellow at WSU

[1]. Subir Majumder, Post-Doc Fellow, January 2020 – August 2021
[2]. Sajan K. Sadanandan, Post-Doc Fellow, December 2018 – September 2021
[3]. Amirkhosoro Vosughi, Post-Doc Fellow, January 2020 – March 2021 (Supported by DOE), working at DEKA R&D, Manchester, New Hampshire
[4]. Pratim Kundu, Assistant Research Professor, 2018- 2019 (supported by EPRI, ARPA-E, PSERC), Working as a Faculty at Indian Institute of Tech., Mandi, India
[5]. Illia Diahovchenko, Fulbright Post-Doctoral Fellow, December 2018-June 2019, (supported by Fulbright), Working as a Faculty at Sumy State University, Ukraine
[6]. Ramyar Saeedi, Post-Doctoral Fellow, (Co-advised with Prof. Gebremedhin), October 2018-August 2019 (Supported by DOE), Working at Hitachi America
[7]. Venkatesh Venkataramanan, Post-Doctoral Fellow, July 2019-August 2019 (Supported by DOE), Working as a post-doc at Massachusetts Institute of Technology.
[8]. Vignesh Krishnan, Assistant Research Professor, July 2016- October 2018 (Supported by DOE, ARPA-E, Siemens, EPRI), - *Working as a Faculty at IIT Tirupati*
[9]. Param Banerjee, Assistant Research Professor, July 2015 – June 2018 (Supported by DOE, NSF, PSERC, EPRI), Working at the AutoGrid R&D
[10]. Chandrashekhar N. Bhende, Visiting Faculty from IIT Bhuvneshwar, May-July 2018 (Funded by Bhaskara Advanced Solar Energy (BASE) Fellowship)
[11]. Anju Meghwani, Visiting Post-Doctoral Associate, Summer 2018 (Supported by DOE)
[12]. Sandeep Anand, Visiting Faculty, Summer 2018 (Supported by DOE)
[13]. Ramon Zamora, Post-Doctoral Associate, January 2016- July 2016 (Supported by NSF grant), working at the Auckland University of Technology as a Faculty
[14]. Prabodh Bajpai, Visiting Faculty, May 2015 – July 2015 (Funded by Bhaskara Advanced Solar Energy (BASE) Fellowship, Indo-US Science and Technology Forum)
[15]. Shaowei Huang, Post-Doctoral Fellow, January-March 2013 (Funded by Tsinghua University, China)

V.E. Former Visiting Scholars and Interns at WSU

[1]. Eshwar Nag Pilli, Graduate Intern (Spring 2021- Fall 2021)
[2]. Suhani Shukla, Highschool Intern as part of SPARK SIP (Summer 2021)
[3]. Rosie Shen, Highschool Intern as part of SPARK SIP (Summer 2021)
[4]. Rayna Bhattacharyya, Highschool Intern as part of SPARK SIP (Summer 2021)
[5]. Anshuman, Graduate Intern (Summer 2019-Spring 2021)
[6]. Tejas Ghanwat, Graduate Intern (Fall 2020- Spring 2021)
[7]. Nikhil Doppalapudi, Graduate Intern (Spring 2020- Fall 2020)
[8]. Ali Tamimi, Graduate Intern, Summer 2020 (Supported on NSF)
[9]. Amandeep Saini, Graduate Intern, Spring 2020- Fall 2020 (Supported on NSF/ DOE)
[10]. Aditya Jasuja, Graduate Intern, Fall 2019 (Supported on PSERC)
[11]. Dipankar Medhi, Graduate Intern, Fall 2019 (Supported on DOE GMLC)
[12]. Ehdieh Khaledian, Graduate Intern, Summer 2019 (supported on NSF and DOE)
[13]. James Park, High-school Intern, Summer 2019 (Supported on NSF)
[14]. Siyum Khan, High-school Intern, Summer 2019 (Supported on DOE)
[15]. Rajarshi Dutta, Graduate Intern, Summer 2019 (Supported by DOE)
[16]. Shreyasi Som, Graduate Intern, Summer 2019 (Supported by DOE)
[17]. Supnirun Suwannasorn, Visiting Graduate Intern, Summer 2019 (Funded by the Asian Institute of Technology (AIT), Bangkok)
[18]. Wasawat Sukrung, Visiting Graduate Intern, Summer 2019 (Funded by the AIT)
[19]. Sittinan Muanchaona, Visiting Graduate Intern, Summer 2019 (Funded by the AIT)

[20]. Chanatta Chaipakdee, Visiting Graduate Intern, Summer 2019 (Funded by AIT)
[21]. Yasmine Ben Miloud, Visiting Graduate Intern, July 2019, (Funded by Fulbright)
[22]. Harshit Bajpai, Visiting Researcher, Summer 2018 (Supported by ARPA-E, NSF)
[23]. Jayakumar Sreenath, Visiting Graduate Student, Summer 2018 (Supported by ARPA-E)
[24]. Darshil Shah, Highschool Research Intern, Summer 2018, 2019 (Supported by PSERC)
[25]. Kush Khanna, Visiting Graduate Student, Summer 2018 (Supported by DOE)
[26]. Jiranat Tangchitticharіya, Visiting Student, September 2017- January 2018 (Supported by Thailand Government)
[27]. Kalpesh Joshi, Visiting Doctoral Scholar, July 2015- January 2016 (Funded by IIT Gandhinagar, India)
[28]. Frank A. Ibarra, Visiting Doctoral Scholar, January 2013- January 2014 (Partially funded by Sao Paulo University, Brazil)
[29]. Pornchai Chaweewat, Visiting Graduate Intern, Summer 2013 (Funded by Asian Institute of Technology, Bangkok)
[30]. Pathatai Dharmasaroj, Visiting Graduate Intern, Summer 2013 (Funded by Asian Institute of Technology, Bangkok)
[31]. Xiyu Xie (September 2015-December 2015) (Supported by Siemens)
[32]. Pradya Panyainkaew Visiting Graduate Intern, Summer 2017 (Funded by AIT)
[33]. Patthanapun Boonthong, Visiting Graduate Intern, Summer 2017 (Funded by Asian Institute of Technology, Bangkok)

V.E. Former Graduate Students

Ph.D. students graduated at WSU

[1]. Gowtham Kandaperumal, "Resiliency-Driven Situational Awareness and Decision Support For Cyber-Power Distribution Systems", July, 2021 (PNNL DGRP fellow co-advised with Dr. K. Schneider) (Working at the ComEd, Chicago, IL)
[2]. S. Armina Foroutan, "Generator Model Validation and Calibration Using Synchrophasor Measurements", May 2021 (Working at the GE Grid Solutions, Redmond, WA)
[3]. Syed Rizvi, "Data-Driven Algorithms for Power System Load Model Parameter Estimation and Voltage Stability Assessment", May 2021
[4]. Zhijie Nie, "Cyber-Physical Resilience Analysis for Power Systems", December 2020 (Working at the GE Grid Solutions, Redmond, WA)
[5]. Shikhar Pandey, "*Application-Aware Synchrophasor Estimation and Quality-Aware Applications*", May 2020 (Working at the ComEd, Chicago, IL)
[6]. Yue Zhang, "*Data-Driven Algorithms for Distribution System Operation and Control*", Ph.D., August 2019 (Working at the GE Grid Solutions, Redmond, WA)
[7]. Venkatesh Venkataramanan, "*Cyber-Physical Resilience Assessment for Active Power Distribution Systems*", August 2019 (Co-advised with Dr. Hahn) (Working as a Post-Doctoral Fellow at the MIT, Cambridge, MA)
[8]. Krishnanjan G. Ravikumar, "*Adaptive Remedial Action Schemes using Synchrophasors*", Ph.D., December 2018, (Working at the Google, CA)
[9]. Tushar, "*Measuring and Enabling Cyber-Physical Resiliency of Electric Transmission Systems*", Ph.D., December 2018, (Working at the GE Grid Solutions, Redmond, WA)
[10]. Sayonsom Chanda, "*Enabling Resiliency of the Electric Distribution Systems During Extreme Events*", December 2018, (Working at the National Grid, NY)
[11]. Bo Cui, "*Synchrophasor Based Failure Diagnosis and Asset Monitoring in Transmission Network Protection System*", Ph.D., August 2018, (Working at T-Mobile, Seattle, WA)
[12]. Ren Liu, "*Cyber-Physical Security Analysis for Synchrophasor Applications*", Ph.D., December 2017, (Working at Dominion Virginia Power, Richmond, VA)
[13]. Hyojong Lee, "*Development, Modeling, and Applications of PMUs*", Ph.D., December 2017 (Working at the ABB Hitachi Power, Cary, NC)
[14]. Ramon Zamora, "*Energy Management and Multi-Layer Control of Networked Microgrids*", Ph.D., December 2015, (Working as a faculty at Auckland University of Technology, New Zealand)

[15]. Saugata Biswas, "*Synchrophasor Based Voltage Stability Monitoring and Control of Power Systems*", Ph.D., September 2014 (*Best Graduate Research Assistant Award) (Working at the GE Grid Solutions, Redmond, WA)
[16]. Farshid Shariatzadeh, "*Energy Management and Control of Active Distribution Systems*", Ph.D., August 2014 (Working at the Amazon, Seattle, WA)

M.S. students graduated at WSU

[1]. M. Musttafa Hussain, "Real-Time Testbed Development for Cyber-Power Analysis and Validation", July 2021, (co-advised with Dr. A. Hahn) (continued as a Ph.D. student)
[2]. Arman Ahmed, "*PMUNET: Anomaly Detection Over Concept Drifting Synchrophasor Data Streams*", May 2019 (Co-advised with Dr. Wu) (Continued as a PNNL Fellow)
[3]. Matteo Menazzi, "*Enabling Resiliency Through Outage Management and Real-Time Data-Driven Aggregated DERs*", EU Student with WSU Thesis, August 2018. (Working with ABB, Bergamo, Italy)
[4]. Shikhar Pandey, "*A Real-Time Synchrophasor Data-Driven Approach for Event Detection in The Power Grid*", December 2017 (Continued as a doctoral student at WSU and now working at the ComEd, Chicago, IL)
[5]. Mengze Zhou, "*An Ensemble-based Algorithm for Synchrophasor Data Anomaly Detection*", May 2017 (Working at the PacificCorp, Portland, WA)
[6]. Guo Yu, "*Three-phase distribution state estimation using smart meter data*", M.S., August 2016 (Working with 1898 and Co., Greater Boston, MA)
[7]. Leslie Corson, "*Development and Integration of Three Phase Unbalanced Voltage Stability Index into Multi-Objective Optimization for Distribution System Planning*", M.S., December 2015 (Working with Douglas County PUD, East Wenatchee, WA)
[8]. Venkatesh Venkataramanan, "*A Real-Time Cyber-Physical Testbed for Microgrid Resiliency Analysis*", M.S., August 2015 (Continued as a Doctoral Student, WSU)
[9]. Sayonsom Chanda, "*Measuring and Enabling Resiliency in Distribution Systems with Multiple Microgrids*", M.S., August 2015 (Continuing as a Doctoral Student, WSU)
[10]. Tushar, "*Data-Driven Load Modeling and Application in Voltage Stability*", M.S., August 2015 (Continued as a Doctoral Student, WSU and at the GE)
[11]. Arvind Malikeshwaran, "*Development and Testing of Synchrophasor Based Dynamic Remedial Action Schemes*", M.S., August 2015, (Working with GE Grid Solutions, Redmond, WA)
[12]. Pramila Nirbhavane, "*Data-Driven Load Modeling in Power Distribution System*", M.S., December 2014 (Working with New York ISO, NY)
[13]. Fransiska Anna Martina, "*Graph Theory and Particle Swarm Based Reconfiguration of Multiple Microgrids For Grid Resiliency*", MS, Dec 2014 (Working at Chevron, Indonesia)
[14]. Jie Wei, "*Distribution Locational Marginal Price Using Three-Phase Current Injection Based Optimal Power Flow*", M.S., Dec. 2014, (Working at Monitoring Analytics LLC, PA)
[15]. Rahul Anilkumar, "*Volt/Var Management for Transmission and Distribution Systems with Wind Energy*", M.S., May 2014 (Working with Quanta Technology, CA)
[16]. Ceeman Vellathurai, "*Cyber-Power System Analysis Using a Real-Time Test Bed*" M.S., August 2013 (Working with Schweitzer Engineering Lab, WA)
[17]. Griet Devriese, "*Energy Savings and Volt/Var optimization using intelligent control*", M.S., August 2013 (Working with Power Engineers, ID)
[18]. Timothy Ernster, "*Power System Vulnerability Analysis: A Centrality Based Approach Utilizing Limited Information*", M.S., August 2012 (Working with U.S. Army Corps of Engineers, OR)

Non-Thesis Students and Professional M.S. graduated at WSU

[1]. Kevin Gowan, Professional Science Masters (PSM), May 2021 (Puget Sound Energy)
[2]. Michael Montgomery, Professional Science Masters (PSM), December 2020 (E.C. Fennell, FL)
[3]. Kelly McFarlane, Professional SM, May 2020 (Bonneville Power Administration)
[4]. Dejene Mersha, Professional SM, May 2018 (Seattle City and Light, Seattle, WA)
[5]. Abdur Rehman, Professional SM, December 2017 (Seattle City and Light, Seattle, WA)
[6]. Sadiq Anod, PSM, May 2017 (Chelan County PUD, Chelan, WA)

[7]. Brandon Powers, "Model-based attack detection and mitigation for AGC", M.S., May 2016 (working with Army Corps of Engineer, Walla Walla, WA)
[8]. Yipeng Zhou, "Cyber-Physical Analysis for Reconfiguration of Multiple Microgrids" M.S. (Non-Thesis), Engineering Sciences, August 2015 (National Institute of clean and low carbon energy (NICE), China)
[9]. Alexander Anderson, PSM, December 2015 (Pacific Northwest National Lab, WA)
[10]. Han Zhao, "Fault Location for Power Distribution System", M.S. (Non-Thesis), May 2015
[11]. Bhavana Mupalla, "Distribution system restoration with Microgrid", M. S. (Non-thesis), August 2014 (Working at Electric Power Systems (EPS), St. Louis, MO)
[12]. Amanvir Sudan, "Data acquisition and monitoring in power grid", M. S. (Non-thesis), August 2013 (Working at Schweitzer Engineering Lab, CA)
[13]. Shreya S Kodnadu, "*PMU performance and modeling*", M. S. (Non-thesis), August 2012 (Working at Silicon Valley Power, San Francisco, CA)

Ph.D. Students graduated as Co-Advisor at Mississippi State University

[1]. Y. Baez-Rivera, "*Control of Multigenerators for the All-Electric Ship*", (co-advised with Dr. Noel Schulz) Ph.D., May 2011 (Best graduate student award from President's Commission on the Status of Women) (Working as Adjunct Lecturer and Lab Manager at University of North Carolina, Charlotte, NC)
[2]. M. Lin, "*Static and Dynamic Voltage Stability Assessment of Hybrid AC/DC Power Systems*", (co-advised with Dr. Noel Schulz), Ph.D., December 2010 (working at New York Independent System Operator (NYISO), NY)
[3]. Q. Huang, "*Power System Distributed State Estimation with Phasor Measurement Units*", (co-advised with Dr. Noel Schulz), Ph.D., December 2010 (with Focus PDM, CA)

M.S. Thesis Students graduated as Advisor at Mississippi State University

[1]. Shilpa Toppo, "*Three-phase continuation power flow based on current injection algorithm for distribution systems*", M.S., Dec. 2010 (Working with PacificCorp, Salt Lake City, UT)
[2]. Ram Mohan Reddi, "*Development of smart grid testbed for operation, control and cyber-security analysis*", M.S., Dec. 2010 (Working at the Penna Cement Industries, India)
[3]. Doug Bowman, "*Impact of Wind farm with storage on Electric Grid*", M.S., December 2010 (Working with Southwest Power Pool, AR),
[4]. Shireesha Methuku, "*Modeling of the Biomass Power Generation and Techno-Economic Analysis*", M.S., December 2009 (Working with ERCOT, Texas)
[5]. Ankush Saran, "*Real-Time Modeling, Simulation and Validation of Protective Relays*", M.S., December 2009. (Ph.D. student at Mississippi State University, MS)
[6]. Sunil Palla, "*Development of overcurrent relay model and power system simulator using national instruments devices in real-time*", M.S., December 2008. (*Best Graduate Research Assistant Award) (Working with New York Power Authority, NY)
[7]. Bharath Ravulapati, "*Development of corrective actions for higher-order contingencies*", M.S., December 2008. (Working with Cross Texas Transmission, TX)
[8]. Abhilash Reddy Masannagari, "*Optimizing the size and location of distributed generators to maximize the grid stability*", M.S., December 2008. (Working with New York Power Authority, NY)
[9]. Aarthi Asok Kumar, "*Technical and economic impacts of distributed generators and energy storage devices on the electric grid*", M.S., December 2008. (Working with LCG Consulting, CA)
[10]. Dina Khaniya, "*Development of three-phase continuation power flow for voltage stability analysis of distribution systems*", M.S., Dec. 2008. (Working at Schneider Electric, SC)

M.S. Thesis Students graduated as Co-Advisor at Mississippi State University

[11]. Vinoth Mohan, "*Advancements in Power System Monitoring and Inter-Operability*", (with Dr. Noel Schulz) M.S., Dec. 2009, (Working with GE Grid Solutions, Redmond, WA),
[12]. Padmavathy Kankanala, "*Optimal Control of Voltage and Power in MVDC Multi-Zonal Shipboard Power System*", (with Dr. Noel Schulz), M.S., December 2009 (PSE&G, Newark, NJ)

[13]. Seetharam Rudraraju, "*Small Signal and Transient Stability Analysis of MVDC Shipboard Power System*", (with Dr. Noel Schulz), M.S., December 2009 (Working with Open System International, Minneapolis, MN)
[14]. Venkata Pendurthi, "*Uncertainty in Measurements and Cognitive Engineering Analysis of a Decision Support System for Power System Reconfiguration*", (with Dr. Noel Schulz), M.S., December 2009 (Working with CompuSharp, Jackson, MS)
[15]. Krishnanjan Gubba Ravikumar, "*Distributed simulation of power systems using Real-Time Digital Simulator*", M.S., August 2009. (with Dr. Noel Schulz) (*Best Graduate Research Assistant Award) (Working with the Google, CA)
[16]. Srinath Kamireddy, "*Comparison of state estimation algorithms considering phasor measurement units and major and minor data loss*", M.S., December 2008. (with Dr. Noel Schulz) (Working with Entergy, Jackson, MS)

M.S. (Non-thesis) Students Graduated as Advisor at Mississippi State University

[17]. Mounika Kurra, M.S., December 2010 (working with Siemens PTI, NY)
[18]. Venkata Surya Subrahmanyam, M.S., December 2010 (Working with PWR Solutions, DNV GL Company, Dallas, TX)
[19]. Sugam Patel, M.S., March 2010. (Working with American Electric Power, TX)
[20]. Bala Ranganath Kondaveeti, M.S., August 2009. (Working with IK Power Systems Solutions, LA)
[21]. Chenfeng Zhang, M.S., December 2008 (Working with Texas Instruments, IN)
[22]. Bharath Annabathina, M.S., Dec. 2008. (Working with New York Power Authority, NY)

V.F. Former Undergraduate Research Students

Undergraduate Students at Washington State University

[1]. Asmita Acharya, Undergraduate Intern on NSF REU (Summer 2021)
[2]. Jayce Gaddis, Undergraduate Intern (September 2018-March 2020)
[3]. Edgar Orozco, Undergraduate Intern (Summer 2020)
[4]. Tori Elizabeth Warner, Undergraduate Intern (Summer 2020)
[5]. Alexandra Beatrice King, Undergraduate Intern (Summer 2020)
[6]. Jonah Davis, Undergraduate Intern on NSF REU (Summer 2020)
[7]. Lauren Smith, NSF REU, Summer 2019
[8]. Hyesun Cha, Research Intern, 2013- 2017 (Supported by DOE, PSERC, EPRI)
[9]. Chuan Qin, Intern (January 2018-December 2018)
[10]. Caroline L. Rublein, NSF REU (Summer 2018)
[11]. Christopher Riedeman, NSF REU Intern (January 2018-May 2018)
[12]. Jacob Greig Prine, Research Intern, (May 2016-May 2018)
[13]. Darryl Hicks, Intern (August 2017-December 2017)
[14]. David Bai, NSF REU (June 2017-August 2017)
[15]. Darryl Hicks, NSF REU (June 2017-August 2017)
[16]. Noble Stoneman, NSF REU (June 2017-August 2017)
[17]. Linh Nguyen, NSF REU (June 2016-August 2016)
[18]. Nathan VelaBorja (Summer, 2015-December 2015)
[19]. Glory Obielodan, NSF REU (Summer 2015)
[20]. Sebastian S. Rodriguez (Summer 2015)
[21]. Douglas Rapier (Summer 2014-December 2014)
[22]. Trey Ottaway (Summer 2014)
[23]. Austin Irby (Spring 2013-Spring 2014)
[24]. Alex Loper (Fall, 2013-Spring 2014)
[25]. Matt Tabor (Spring, 2013- Summer, 2013)
[26]. Rory Beckstorm, (Fall, 2012 - Fall 2013)
[27]. Hyojong Lee, (Fall, 2012)
[28]. Abdur Rehman (Fall 2012-Spring 2013)
[29]. Rakesh Goyal (Summer 2012)
[30]. Jared Bestbreuer (Summer 2011)
[31]. Sadiq Anod (REU) (Summer 2011)

Undergraduate Students at Mississippi State University

[1]. Reginal Roby, Mississippi State University, B.S. Student, (Spring and Fall, 2010)
[2]. Udita Singh, Indian Institute of Technology, Delhi, India, (Summer 2009)
[3]. Sri Hari Krishna, Indian Institute of Technology, Kharagpur, India, (Summer 2009)
[4]. Meenakshi Garg, Indian Institute of Technology, Delhi, India, (Summer 2008)
[5]. Nikhil Kumar, Institute of Technology, BHU, Varanasi, India, (Summer 2007)

V.G. Undergraduate Senior Design Projects

[1]. *"High Surge Impedance Loading of High Voltage Transmission Lines", Power Engineers and WSU EECS (2020-2021)*
[2]. *"Designing Data Management Tool using OpenPDC for Smart Grid Control Application"*, Supported by DOE (2015-2016)
[3]. *"Design of Synchrophasor estimation, monitoring and visualization using PI server and PMU prototype"*, Supported by DOE (2015)
[4]. "Designing a remedial action scheme using synchrophasors data", Supported by DOE (2014-2015)
[5]. "Designing an open source phasor measurement unit", Supported by DOE (2014)
[6]. "PMU design and prototype", Supported by SGDRIL, ESIC (2012-2013)
[7]. "Feeder Voltage Optimization", Supported by Tacoma Power (2010-2011)
[8]. "Synchrophasor Wide Area Control System", Supported by Schweitzer Engineering Laboratories, Inc., (2010-2011)

V.H. Graduate Thesis External Examiner

[1]. Delft University, Delft, Netherland
[2]. Asian Institute of Technology, Bangkok, Thailand
[3]. Indian Institute of Technology, Kanpur, India
[4]. Indian Institute of Technology, Bombay, India
[5]. Indian Institute of Technology, Roorkee, India
[6]. Indian Institute of Technology, Chennai, India
[7]. Faculty of Engineering and Technology, Multimedia University, Malaysia

VI. Teaching Experience

VI.A. List of Courses Taught at WSU

Course Number	***Course Name***	***Semester***	***Students***
EE 361	Electrical Power System	Spring 2021	15
EE 582	Cyber-Power Systems	Fall 2020	8
EE 536 Online	Power System Operation and Electricity Market	Fall 2020	6
EE 361	Electrical Power System	Spring 2020	34
EE 361 Everett	Electrical Power System (Partial)	Spring 2020	18
EE536	Power System Operation and Electricity Market	Fall 2019	18
EE 536 Online	Power System Operation and Electricity Market	Fall 2019	9
EE 582	Cyber-Power Systems	Spring 2019	25
EE 536 Online	Power System Operation and Electricity Market	Fall 2018	13
UI Guest Lecture	Resilient Controls for the Power Grid	Fall 2018	17
EE/ CptS 439	Critical Infrastructure Security: Emerging Smart Grid	Spring 2018	24
EE439 Online	Cyber Infrastructure for the Smart Grid	Spring 2018	1
EE536 Online	Power System Operation and Electricity Market	Fall 2017	16
EE536	Power System Operation and Electricity Market	Fall 2017	14
EE582/ EE439	Critical Infrastructure Security: Emerging Smart Grid	Spring 2016	18
EE439 Online	Cyber Infrastructure for the Smart Grid	Spring 2016	2
EE536 Online	Power System Operation and Electricity Market	Fall 2015	7

EE536	Power System Operation and Electricity Market	Fall 2015	12
EE361	Electrical Power System	Spring 2015	47
EE582/ EE439	Critical Infrastructure Security: Emerging Smart Grid	Spring 2015	28
EE582 Online	Cyber Infrastructure for the Smart Grid	Spring 2015	5
EE582/ EE483	Critical Infrastructure Security: Emerging Smart Grid	Spring 2014	9
EE536	Power System Economics and Electricity Market	Fall 2013	17
EE582/ EE483	Critical Infrastructure Security: Emerging Smart Grid	Spring 2013	26
EE491	Performance of Power System	Fall 2012	34
EE582/ EE483	Critical Infrastructure Security: Emerging Smart Grid	Spring 2012	29
EE361	Electrical Power System	Spring 2012	24
EE581/ EE536	Power System Economics and Electricity Market	Fall 2011	23
EE361	Electrical Power System	Spring 2011	35

VI.B. List of Courses Taught at MSU

Course Number	Course Name	Semester
ECE8990	Power system economics and deregulation	Spring 2006 and Fall 2008
ECE 8990	Power system operation and control	Fall 2006 and Fall 2009
ECE8990	Electric ship power system (partial)	Fall 2006
ECE8990	Power system modeling and simulation (partial)	Spring 2007
ECE8623	Power system stability, security and vulnerability	Fall 2007
ECE4613/6613	Power system transmission (partial)	Fall 2008

VII. Research Funding/Grants

VII.A. Active Research Grants at WSU (Some to be transferred to WVU)

	Title	Source	Role and other PI's	WSU Amount and My Share	Time Period
1.	Augmenting and Advancing Cognitive Performance of Control Room Operators for Power Grid Resiliency (WVU)	NSF	Role: Lead-PI Co-PIs: Drs. Whitney, Hahn, Bose, Lotfifard	$1.378M + $16K REU (Total: $2.17M) My Share: 35% of WSU part	8/18-8/23
2.	CPS: DFG Joint: Medium: Collaborative Research: Data-Driven Secure Holonic control and Optimization for the Networked CPS (aDaptioN) (WVU)	NSF/ DFG	Role: Lead PI Co-PIs: Drs. Hahn, Wu, Bakken with MIT, Aachen U in Germany	$810K +$16K REU Supplement My Share: 40%	1/20-12/22
3.	Efficient UltRa Endpoint IoT-enabled Coordinated Architecture (EUREICA) (WVU)	DOE	Role: WSU PI Lead: MIT, with Princeton, GE, NREL	$279K My Share: 100%	8/20-7/23
4.	UI-ASSIST: US-India collAborative for smart diStribution System wIth Storage (WVU)	DOE/ DST	Role: Co- Lead PI and Technical Lead Lead PI: Dr. Schulz, Co-PIs: Drs. Hahn, Bose and Horne with 30 additional institutions	$1.5M (Total: $39M) My Share: 40% of WSU part	10/17-09/23
5.	SolarSTARTS: Solar-Assisted State-Aware and ResilienT infrastructure System (WVU)	DOE/ Univ. of Utah	Role: WSU PI Others: U of Utah	$450,000 My Share: 100% of WSU part	1/20-12/22

			(Lead), PacificCorp, INL, Utah Transit Authority		
6.	Grid Ready Energy Analytics Training with Data	DOE/ EPRI	Role: co-PI Lead PI: Dr. Dubey, Other Co-PI: Dr. Mehrizi-Sani	$244K My Share: 20%	4/19-3/24
7.	Data-driven Control of DERs & Hybrid PV Plants for Enhancing Voltage Stability Over Multiple Timescales	NSF I/UCRC PSERC	Role: WSU PI Lead: Dr. Ajjarapu (Iowa State)	$220K My Share: 32%	7/21-7/23
8.	Federated Predictive Analysis For Power Grid Using Multi Agent Models	PNNL DGRP	Role: WSU PI	$103,562	1/21-12/23
9.	Tools for keeping your power ON during extreme events	CGF	Role: WSU PI	$37,948 My Share: 100%	01/21-12/21

** Amount indicated for each project may not be the total project funding awarded, but only my share for some of the projects. In all the cases, it shows only WSU part or my share (% are approximate).*

VII.B. Completed Research Grants at WSU

	Title	Source	Role and other PI's	Amount and My Share	Time Period
1.	*AGGREGATE*: dAta-driven modelinG preservinG contRollable dEr for outaGe mAnagemenT and rEsiliency	DOE	Role: Lead PI Co-PIs: Dr. Dubey With: MIT, GE, SCL, ANL, VT	$900K (Total: $2.29M) My Share: 40% of WSU part	10/17-06/21
2.	AGI Grid SandBox	Pacific Northwest National Lab	Role: WSU PI	$150,000 My Share: 80%	08/19-9/21
3.	Resilient Alaskan Distribution system Improvements using Automation, Network analysis, Control, and Energy storage (RADIANCE)	INL/ DOE	Role: WSU PI With: INL (Lead) and 10+ partners	$400,000 (Total: $6.2M) My Share: 100% of WSU part	11/17-3/21
4.	Development of Prototypical Communications System Models for Cyber-Physical Resiliency Analysis	PNNL DGRP	Role: WSU PI	$96,000 (Mainly for my student)	10/19-9/21
5.	Cyber Resilient Energy Delivery Consortium (CREDC)	Department of Energy	Role: Co-PI PI: Dr. Hahn Co-PI's: Dr. Bose	$1.7M My share: 30%	10/15-9/20
6.	Smart Reconfiguration of Idaho Falls Power Distribution Network for Enhanced Quality of Service	Idaho National Lab/ Department of Energy (DOE)	Role: PI Co-PI: Dr. Liu	$150,000 My Share: 70% of WSU part	08/16-10/18
7.	NSF Workshop on Real-Time Data Analytics for Resilient Electric Grid	NSF	Role: Lead PI	$49K My Share: 100%	5/18-3/19
8.	CPS: Synergy: Collaborative Research: Diagnostics and Prognostics Using Temporal Causal Models for Cyber-Physical Systems- A case of Smart Electric Grid	National Science Foundation (NSF)	Role: PI Co-PI: Dr. Liu With: Vanderbilt University (Lead) and North Carolina S. U.	$400,000 +$16K REU Supplement (Total: $999,953) My Share: 60% of WSU part	10/13-09/18
9.	Kronos++: Dynamic Knowledge Inference for Real-Time Smart	Siemens	Role: Lead PI	$80K My Share: 40%	6/19-10/19

	Grid Resiliency Analysis		Co-PIs: Drs. Hahn, Wu		
10.	CPS: TTP Option: Synergy: Collaborative Research: The Science of Activity-Predictive Cyber-Physical Systems (APCPS)	National Science Foundation (NSF)	Role: co-PI Lead PI: Dr. Cook Co-PIs: Dr. Doppa and Dr. Schmitter-Edgecombe	$1,100,000 My Share: 27%	10/15-12/19
11.	Kronos: Knowledge Base of Real-time Power Event on Heterogeneous Data Streams	Siemens	Role: Lead PI Co-PIs: Drs. Hahn, Wu	$100K My Share: 40%	7/18-5/19
12.	Collaborative Research: The Adoption of an Emerging Technology for Improving the Electrical Delivery System	National Science Foundation (NSF)	Role: Co-PI PI: Dr. Horne With: Brown U. (Lead)	$130,303 My Share: 25% of WSU part	04/16-03/18
13.	Develop a Technique to Derive Static ZIP Load Model from Synchrophasor Data	Electric Power Research Institute (EPRI)	Role: Lead PI	$220,000 My Share: 100%	10/15-9/18
14.	Data Analytics for the Smart Grid (DASG) Workshop	Siemens	Role: Lead PI	$5000 My Share: 100%	7/17-12/17
15.	Advanced Cyber-Physical Analysis for Smart Grid Distributed ICT and IED Resources at RTE France	NSF IUCRC PSERC	Role: Co-PI PI: Dr. Bakken	$311.5K My Share: 55% of WSU part	12/14-12/17
16.	Analyzing Cognitive Flexibility of Control Room Operator with Advanced Decision Support Tools in Extreme Contingencies	Energy Systems Innovation center	Role: Lead PI Co-PI: Drs. Lotfifard, and Whitney	$9,960 My Share: 30% of WSU part	07/16-10/17
17.	Cyber-Physical Security Analytics for Smart Grid	Siemens	Role: Lead PI Co-PI: Dr. Hahn	$99K My Share: 60%	1/17-12/17
18.	Global RT-SuperLab	INL	Role: PI (Idaho National Lab (Lead) with partners)	In-kind Support	6/17-12/17
19.	Deployment and Evaluation of Energy Storage Integrated into the Pullman Smart Grid Community	Washington State Department of Commerce/ AVISTA/ PNNL	Role: Co-PI PI: Dr. Liu Co-PI: Dr. Bose With: AVISTA (Lead)	$399,000 (WSU part) My Share: 30% of WSU part	12/15-12/16
20.	Analyzing the impact of NERC CIP on Power System Operations and Developing Techniques/ Business Plan for Optimal Cybersecurity Requirements	Energy Systems Innovation Center	Role: Co-PI Co-PI: Drs. Hahn, and Sahaym	$10,000 My Share: 30% of WSU part	07/16-06/17
21.	Collaborative Research: Integrated Policy and Engineering Design for Complex Systems with Applications to Smart Distribution System	National Science Foundation (NSF)	Role: PI With: Purdue U. (Lead), (Started as Co-PI and change to WSU PI 09/12)	$150,000 (Total: $350,000) My Share: 100% of WSU part	08/12-08/17
22.	Smart City Testbed at WSU	Murdock Foundation	Role: Co-PI PI: Dr. Liu, Co-PI: Bose, Mani, Bakken, Hauser, Mehrizi-Sani	$1M My Share: 6% (for students and testbed)	9/14-9/17
23.	A Collaborative Educational Program on Synchrophasor Applications for the Smart Electric	Department of Energy (DOE)	Role: Lead PI Co-PIs: Dr. Liu, Dr.	$200,000 (With industry match by OSI,	07/13-12/15

	Grid		Mani and Dr. Bakken	SEL: $1,368,611) My Share: 80%	
24.	Collaborative Research: Smart Power Distribution System Curriculum - Multi-Institution Demonstration and Deployment	National Science Foundation (NSF)	Role: PI With: Drexel U. (Lead), Cornell U., U. of North Carolina and The College of New Jersey	$87,057 (Total: $599,679) My Share: 100% of WSU part	09/12-08/16
25.	Development of a Smart Phone App for Energy Sustainability	Energy Systems Innovation center	Role: PI Co-PI: Drs. Horne, Kennedy, and Hahn	$9,480 My Share: 20% of WSU part	08/15-06/16
26.	Real-Time Modeling and Simulation Module for the Smart Electric Grid	WSU VCEA Equipment program	Role: PI Co-PIs: Mehrizi-Sani, Hahn, Lotfifard	$60K My Share: 0% (for test bed)	10/14-12/15
27.	Substation Automation and Trip Coil Health Monitoring	Schweitzer Engineering Lab (SEL)	Role: PI Co-PI: Dr. Hauser	$450,000 My Share: 90%	05/11-12/15
28.	Adaptive and Intelligent PMU for Smarter Applications	Power System Engineering Research Center	Role: PI With: Georgia Tech and University of Illinois	$80,000 (Total: $140,000) My Share: 100% of WSU part	06/13-08/15
29.	Student Support for the 2014 North American Power Symposium (NAPS), held at Washington State University, Pullman, WA	National Science Foundation (NSF)	Role: Co-PI PI: Mehrizi-Sani, Co-PI: Bose	$12,000 My Share: 0% (for students)	08/14-06/15
30.	Developing a Battery-Extender Auxiliary Power Unit (BE-APU) for Next-Generation Commercial Airplanes (with Boeing), Phase 3	Joint Center for Aerospace Technology Innovation	Role: Co-PI PI: Liu, Co-PIs: Drs. Ha, Norton, Mehrizi-Sani	$100,000 My Share: 40%	07/14-06/15
31.	Trustworthy Cyber-Infrastructure for the Power Grid	Department of Energy (DOE)	Role: Senior Researcher PI: Dr. Hauser Co-PI: Dr. Bose, Bakken	$194,118 (Total: 1,411,482) My Share: 13%	01/11-08/15
32.	Implementing Smart Meter Applications in Washington State: Institutional Analysis of an Emerging Technological Field	WSU Energy System Innovation Center Seed Grant	Role: Co-PI PI: Dr. Horne Co-PI: Dr. Frickel	$9,200 My Share: 30%	3/14-9/14
33.	Engineering and Sociological Foundations for Smart Distribution Systems	CEA Strategic Investments for Research Excellence Grant	Role: Co-PI PI: Dr. Liu Co-Pis: Dr. Love, Dr. Horne, Dr. Cook	$60,000 + in kind My Share: 40%	10/12-09/14
34.	AVISTA Smart Grid Demonstration Grant	AVISTA/ Department of Energy	Role: PI Co-PI: Dr. Bose (Transferred)	$427,000 My Share: 75%	05/12-09/14
35.	Course Development “Critical Infrastructure Security: The Emerging Smart Grid”	Department of Energy through NSF IUCRC PSERC	Role: PI Co-PIs: Dr. Hauser and Dr. Bakken	$140,000 My Share: 42%	05/11-07/14

36.	Feasibility of a Smart Distribution System for Microsoft Campus	Puget Sound Energy (PSE) and Microsoft	Role: Co-PI PI: Dr. Liu	$80,050 My Share: 50%	06/13-07/14
37.	AVISTA Smart Grid Investment Grant	AVISTA/ Department of Energy	Role: PI Co-PI: Dr. Bose (Transferred)	$140,000 My Share: 60%	05/12-12/13
38.	Developing a Battery-Extender Auxiliary Power Unit (BE-APU) for Next-Generation Commercial Airplanes (with Boeing), Phase 2	Joint Center for Aerospace Technology Innovation	Role: Co-PI PI: Dr. Liu, Co-PIs: Drs. Ha, Norton, Mehrizi-Sani	$127,500 My Share: 30%	07/13-06/14
39.	Testing and Validation of Phasor Measurement-Based Devices and Algorithms	NSF I/UCRC Power System Engineering Research Center	Role: PI With: Georgia Tech	$80,000 (Total: $150,000) My Share: 100%	06/11-08/13
40.	Interconnection Level Transmission Planning Analysis	DOE/ WECC	Role: Senior Researcher PI: Dr. Olsen, Dr. Bose	$24,724 My Share: 100% of my expenditure	01/13-07/13
41.	Training program in clean energy smart grid engineering	Department of Energy (DOE)	Role: Senior Personnel PI: Dr. Bose Co-PIs: Dr. Mani, Dr. Bakken, Dr. Hauser	$46,643 (My expenditure) My Share: 100% of my expenditure	05/12-07/13
42.	Social factors Influencing Implementation and Usage of Smart Grid Technologies	WSU IGIS Grant Application	Role: Co-PI PI: Dr. Horne Co-PI: Dr. Frickel	$5000 My Share: 30%	08/12-06/13
43.	A Nationwide Consortium of Universities to Revitalize Electric Power Engineering Education by State-of-the-Art Laboratories	Department of Energy (DoE)	Role: PI With: University of Minnesota	$4,000 (WSU part) My Share: 100% of WSU part	07/10-07/13
44.	Developing a Battery-Extender Auxiliary Power Unit (BE-APU) for Next-Generation Commercial Airplanes (with Boeing), Phase I	Joint Center for Aerospace Technology Innovation	Role: Co-PI PI: Dr. Liu Co-PIs: Dr. Ha, Dr. Norton	$84,930 My Share: 30%	02/13-06/13
45.	Smart Energy Environments: Design for Human Interaction with Smart Grids	WSU ESIC Seed Grant	Role: Co-PI PI: Dr. Beyreuther Co-PIs: Drs. Cook & Love	$50,000 My Share: 10%	01/13-06/13
46.	Real-Time Operation and Control of Microgrid	WSU Research Office New Faculty Seed Grant	Role: PI	$18,000 My Share: 100%	08/11-08/12
47.	Computational Needs for the Next Generation Electric Grid	Department of Energy (DOE)	Role: PI Co-PI: Dr. Bose With: Vanderbilt University	$5,000 My Share: 60%	10/10-06/11

VII.C. Completed Research Grants at MSU

Title	Source	Role and other PI's	Amount and My	Time Period

				Share	
1.	Student Travel Support for the 2009 North American Power Symposium, MS	National Science Foundation	Role: PI Co-PI: Dr. Schulz	$10,000 My Share: 0% (For students)	09/09-01/10
2.	Remote, nondestructive testing of power system, Multiple University Research Initiative	Office of Naval Research, through Drexel University	Role: PI Co-PIs: Drs. Schulz, Gao, Ginn (Transferred)	$239,622 My Share: 20%	(5/09-08/10)
3.	Travel funding for attending American Society of Engineering Education, Pittsburgh, PA	MSU Office of Research,	Role: PI	$1800 My Share: 100%	04/08-06/08
4.	Advanced Naval Power Systems through Electric ship system research and development	Office of Naval Research (Prime) through Florida State University	Role: Co-PI PI: Dr. Schulz Co-PIs: Dr. Gao and Dr. Ginn	$600,000 My Share: 1s0%	10/07-9/10
5.	Study of interconnection benefits, strategies and impact of distributed generation on the electric power grid	Department of Energy (DOE)	Role: Co-PI PI: Dr. Schulz Co-PI: Dr. Ginn	$270,000 My Share: 100%	06/07 - 01/10
6.	Adaptive reconfiguration for shipboard power and support systems	Office of Naval Research/ Florida State University	Role: Co-PI PI: Dr. Schulz Co-PI: Dr. Ginn	$150,000 My Share: 100%	10/06-5/07
7.	The Western Interconnection Synchrophasor Project	DOE SGIG through Western Electricity Coordinating Council/ PGE	Role: Senior Researcher PI: Dr. King	$30,000 My Share: 100%	05/10-12/10
8.	Semantic-driven knowledge discovery system for wide-area monitoring of electric power grid	Department of Homeland Security (DoHS)	Role: Senior Researcher PI: Dr. King	$100,000 My Share: 100%	04/07-12/08
9.	High-performance real-time system for hardware in the loop testing and analysis of advanced power and control systems	Department of Defense (DoD), DURIP	Role: Senior Researcher PI: Dr. Schulz	$60,000 My Share: 100%	04/06 - 03/07

VIII. Publications

Publications* # Summary

	Journal	Conference	Books/ Chapters	Patents	Technical Reports/ White Paper
Total Publications	**112**	**187**	**15**	**3**	**18**

* ***Students authors advised or co-advised by me (includes collaborative paper resulted from students in my class or as graduate committee member)***

\# ***Authors including visiting students and post-doctoral fellow working in my lab***

Citation Report

	Lifetime Citation Count	h-Index	i10-Index
Google Scholar	**6261**	**39**	**119**

VIII.A. Book/ Book Chapters

[B1.] *A. K. Srivastava*, C. C. Liu and S. Chanda, "Resiliency of Power Distribution Systems", Edited Book, Wiley, 2021.

[B2.] *A. K. Srivastava*, V. Venkataramanan, A. Hahn, and C. Hauser, "Cyber Infrastructure for The Smart Electric Grid", Wiley, 2021.

[B3.] *A. K. Srivastava*, V.V.G Krishnan[#], S. Gopal, Shikhar Pandey[*], and D. Bakken, "Impact of Data Quality on Synchrophasor Based Control to Minimize Wind Curtailment", in the book titled Monitoring and Control using Synchrophasors in Power Systems with Renewables, IET Publications, 2019.

[B4.] A. K. Srivastava, V.V.G Krishnan[#], S. Gopal, R. Liu[*], Z. Nie[*], and D. Bakken, "Distributed and Resilient Control with Distributed Energy Resource", in the book titled Intelligent Power grid of Tomorrow: Modeling, Planning, Control, and Operation, Springer, 2019.

[B5.] K. A. Joshi[#], *A. K. Srivastava*, N. M. Pindoriya, "*Evaluation of Multiple Storage Benefits and Optimization of Energy Storage Operations in Distribution Networks*" in the book "Energy Storage at Different Grid Levels - Technology, Integration, and Market Aspects", *IET Publication, 2018.*

[B6.] P. Banerjee[#], S. Pandey[*], *A. K. Srivastava*, D. Lee, "Testing and Validation of Synchrophasor Devices and Applications", In the book titled "*Power System Grid Operation Using Synchrophasor Technology",* (pp. 41-75). Springer, 2018.

[B7.] Tushar[*], H. Lee[*], P. Banerjee[#], and *A. K. Srivastava*, "Synchrophasor Applications for Load Estimation and Stability Analysis", in the IET Power and Energy Series book, Synchronized Phasor Measurements for Smart Grids, 2017.

[B8.] *A. K. Srivastava*, S. Chanda[*], N. Hatziargyriou, J. Wang, "Smart Grids and Microgrids", McGraw-Hill Handbook, 2017.

[B9.] *A. K. Srivastava*, "Analyzing Cyber Requirements for the Smart Grid Applications", Smart Grid Inspired Future Technologies, Institute for Computer Sciences, Social Informatics and Telecommunications *Engineering 2017.*

[B10.] P. Mandal, *A*. K. Srivastava, T. Senjyu, and M. Negnevitsky, "Electricity Price Forecasting Using Neural Network and Similar Days", Book chapter for IEEE Press's Advances in Electric Power and Energy; Power Systems Engineering, 2017.

[B11.] R. Liu[*], R. Goodfellow, *A. K. Srivastava*, "A Testbed for Closed Loop Cyber-Physical-Social System Simulation and Security Analysis", Book chapter in Cyber-Physical-Social Systems and Constructs in Electric Power Engineering, IET, 2016.

[B12.] S. Biswas[*] and *A. K. Srivastava*, "Synchrophasor Device Testing And Related Standards", Handbook of Smart Grid Development, Wiley, 2015.

[B13.] C. Vellaithurai[*], S. Biswas[*], R. Liu[*], and *A. K. Srivastava*, "Real-Time Modeling and Simulation of Cyber-Power System", Edited book by S. Khaitan, J. McCalley, C-C. Liu entitled "Cyber-Physical Systems Approach to Smart Electric Power Grid" for Book series on "Understanding Complex Systems", Springer-Verlag Inc, December 2014.

[B14.] *A. K. Srivastava*, N. Schulz, R. Zamora[*], K. G Ravikumar[*], V. M Mohan[*], "Real-Time Modeling and Control of Smart Grid Systems", Modeling and Control, Green Energy and Technology, pp. 1–26, Springer Berlin Heidelberg 2012.

[B15.] *A. K. Srivastava* and A. J. Flueck, "Contingency Screening Techniques and Electric Grid Vulnerabilities: Mathematical Modeling, Algorithm Development and Applications", VDM Verlag, ISBN-10: 3836487012, June 2008.

VIII.B. Patents/ Copyright

[PT1]. S. Biswas[*] and *A. K. Srivastava*, "PMU performance analyzer", *U.S. Patent No. 9,910,081*. Washington, DC: U.S. Patent and Trademark Office, March 2018.

[PT2]. S. Biswas[*] and *A. K. Srivastava*, "Electric power system circuit breaker trip diagnostic", Patent with SEL, *U.S. Patent No. 9,864,008*. Washington, DC: U.S. Patent and Trademark Office, January 2018.

[PT3]. S. Biswas* and *A. K. Srivastava*, "RT-VSMAP: A Real-Time Voltage Stability Monitoring", *U.S. Patent No. 9,876,352*. Washington, DC: U.S. Patent and Trademark Office, January 2018.
[PT4]. S. Biswas* and *A. K. Srivastava*, "RT-VSMAC: A real-time voltage stability monitoring and control", Pending, USSN 2014/800,539, Filed in July 2015.
[PT5]. S. Chanda and *A. K. Srivastava*, "CANVASS: Cyber Anomaly and Network Vulnerability Assessment", Pending Copyright, May 2018.
[PT6]. A. Ahmed*, S. Singh, Y. Wu, *A. K. Srivastava*, J. Pi, "PMUNET: Anomaly Detection on Concept Drifting Synchrophasor Data Streams." Pending, USSN 62/827,253, Filed in April 2019.
[PT7]. *A. K. Srivastava*, Z. Nie, S. Sadanandan, " CP-TRAM: Cyber-power Transmission Resiliency Assessment and Management", Pending, Initiated in November, 2020.

VIII.C. Journal Papers

IEEE Transactions, IET Journals, and other IEEE Publications:

[J1]. G. Kandaperumal, *S.* Pandey, and A. K. Srivastava, *"*AWR: Anticipate, Withstand, and Recover Resilience Metric for Operational and Planning Decision Support in Electric Distribution System", IEEE Transactions on Smart Grid, October 2021.
[J2]. N. Patari, V. Venkataramanan, A. K. Srivastava, D. K. Molzahn, N. Li, A. Annaswamy, "Distributed Optimization in Distribution Systems:Use Cases, Limitations, and Research Needs" IEEE Transactions on Power System, October 2021
[J3]. N. Patari, A. K. Srivastava, G. Qu, and Na Li, "Distributed Voltage Control for Three-Phase Unbalanced Distribution Systems with DERs and Practical Constraints", IEEE Transactions on Industrial Applications, September, 2021.
[J4]. H. A. Abdelsalam, A. K. Srivastava, and A. Eldosouky, "Blockchain-Based Privacy Preserving and Energy Saving Mechanism for Electricity Prosumers", IEEE Transactions on Sustainable Energy, September 2021.
[J5]. S. M. Hur Rizvi, S. K. Sadanandan and A. K. Srivastava, "Data-driven Short-term Voltage Stability Assessment using Convolutional Neural Networks Considering Data Anomalies and Localization", IEEE Access, September 2021
[J6]. S. M. Hur Rizvi, S. K. Sadanandan and A. K. Srivastava, "Real-Time Parameter Tracking of Power-Electronics Interfaced Composite ZIP Load Model", IEEE Transactions on Smart Grid, September 2021.
[J7]. S. M. Hur Rizvi, S. K. Sadanandan and A. K. Srivastava, "Real-time ZIP Load Parameter Tracking using Sensitivity based Adaptive Window and Variable Elimination with Realistic Synchrophasor data", IEEE Transactions on Industry Applications, August 2021
[J8]. A. Vosughi, S. K. Sadanandan, and A. K. Srivastava, "Synchrophasor-Based Event Detection, Classification, and Localization Using Koopman, Transient Energy Matrix, Best Worth Method, and Dynamic Graph", IEEE Transactions on Power Delivery, August 2021
[J9]. Syed M H. Rizvi, K. S. Sajan, and A. K. Srivastava, "Synchrophasor based ZIP Parameters Tracking using ML with Adaptive Window and Data Anomalies", IEEE Transactions on Power Systems, June 2021
[J10]. P Nirbhavane, L Corson, S Rizvi, AK Srivastava, "TPCPF: Three-phase Continuation Power Flow Tool for Voltage Stability Assessment of Distribution Networks with Distributed Energy Resources", IEEE Transactions on Industry Applications, June 2021
[J11]. GNV Mohan, CN Bhende, AK Srivastava, "Intelligent Control of Battery Storage for Resiliency Enhancement of Distribution System", IEEE Systems Journal, May 2021
[J12]. R. Saeedi#, K. S. Sajan#, *A. K. Srivastava*, K. Davies, and A. H. Gebremedhin, "An Adaptive Machine Learning Framework for Behind-the-Meter Load/PV Disaggregation", IEEE Transactions on Industrial Informatics, February 2021.
[J13]. N. Kishore, A. Srivastava and H. Pota, "Guest Editorial for Special Section on Deep Learning and Data Analytics to Support the Smart Grid Operation with Renewable Energy", IEEE Transactions on Industrial Informatics, April 2021.
[J14]. C. Qin*, *A. K. Srivastava*, K. Davies, "Unbundling Smart Meter Services through Spatio-Temporal Decomposition Agents in DER-rich Environment", IEEE Transactions on Industrial Informatics, February 2021.

[J15]. A. Ahmed*, K. S. Sajan#, *A. K. Srivastava*, Y. Wu, “Anomaly Detection, Localization and Classification using Drifting Synchrophasor Data Streams”, IEEE Transactions on Smart Grid, January 2021.

[J16]. H. Lee*, A. Srivastava, V. V. G. Krishnan*, S. Niddodi, D. Bakken, “Decentralized Voltage Stability Monitoring and Control with Distributed Computing Coordination”, January 2021, IEEE Systems Journal

[J17]. E. Khaledian*, S. Pandey*, P. Kundu#, and *A. K. Srivastava*, “Real-time Synchrophasor Data Anomaly Detection and Classification using Isolation Forest, KMeans and LoOP”, IEEE Transactions on Smart Grid, DOI: 10.1109/TSG.2020.3046602, December 2020

[J18]. Tushar*, V. Venkataramanan*, *A. K. Srivastava*, A. Hahn, “CP-TRAM: Cyber-Physical Transmission Resiliency Assessment Metric”, *IEEE Transactions on Smart Grid*, vol. 11, no. 6, pp. 5114-5123, Nov. 2020.

[J19]. S. Pandey*, *A. K. Srivastava* and B. Amidan, "A Real-Time Event Detection, Classification and Localization using Synchrophasor Data," *IEEE Transactions on Power Systems*, vol. 35, no. 6, pp. 4421-4431, Nov. 2020.

[J20]. S. Pandey*, S. Chanda*, *A. K. Srivastava*, and R. O. Hovsapian, “Resiliency-Driven Proactive Distribution System Reconfiguration with Synchrophasor Data”, IEEE Transactions on Power Systems, vol. 35, no. 4, pp. 2748-2758, July 2020.

[J21]. Y. Zhang, C. Qin, *A. K. Srivastava*, C. Jin, and R. K. Sharma, “Data-Driven Day-Ahead PV Estimation Using Autoencoder-LSTM and Persistence Model", in IEEE Transactions on Industry Applications, 56(6), pp. 7185-7192, 2020.

[J22]. S. Rizvi*, P. Kundu# and *A. K. Srivastava*, “Hybrid Voltage Stability and Security Assessment using Synchrophasors with Consideration of Generator Q-limits”, IET Generation, Transmission and Distribution, 14 (19), pp. 4042-4051, 2020.

[J23]. Y. Zhang*, *A. K. Srivastava*, and D. Cook, “Machine Learning Algorithm for Activity-aware Demand Response Considering Energy Savings and Comfort Requirements”, IET Smart Grid, 3(5), pp. 730-737, 2020.

[J24]. S. Pannala#, N. Patari*, *A. K. Srivastava* and N. P. Padhy, "Effective Control and Management Scheme for Isolated and Grid Connected DC Microgrid," in IEEE Transactions on Industry Applications, doi: 10.1109/TIA.2020.3015819, 2020.

[J25]. J. Zhao, *A. K. Srivastava*, A. Chakrabortty, V. Terzija, I. Kamwa, T. Bi, and Y. Zhang. "Guest Editorial: Next Generation of Synchrophasor-based Power System Monitoring, Operation and Control." IET Generation, Transmission and Distribution, pp. 3943-3944, 2020.

[J26]. C. Qin*, Z. Nie*, P. Banerjee# and *A. K. Srivastava*, "End-to-End Remote Field Testing of Phasor Measurement Units Using PPA Test Suite," in IEEE Transactions on Industry Applications, 56(6), pp. 7067-7076, 2020.

[J27]. V. Venkataramanan*#, P. S. Sarker*, K. S. Sajan#, and *A. K. Srivastava*, and A. Hahn, “A Real-Time Federated Cyber-Transmission-Distribution Testbed Architecture for the Resiliency Analysis”, IEEE Transactions on Industry Applications, vol. 56, no. 6, pp. 7121-7131, Nov. 2020.

[J28]. Z. Nie*, C. Qin*, P. Kundu#, and *A. K. Srivastava*. "Remote testing architecture for synchrophasor-based remedial action schemes", *IET Generation, Transmission & Distribution*, 14(19), pp. 4060-4068, 2020.

[J29]. Y. Guo*, Y. Zhang*, and *A. K. Srivastava*, “Data-Quality Aware Distribution State Estimation using Maximum Normal Measurement Rate”, IEEE Transactions on Industry Applications, 56 (2), pp. 2061-2068, 2020.

[J30]. Y. Zhang*, V. V. G. Krishnan#, J. Pi, K. Kaur, *A. K. Srivastava*, A. Hahn, S. Suresh, “Cyber-physical security analytics for transactive energy systems”, IEEE Transactions on Smart Grid, vol. 11, no. 2, pp. 931-941, March 2020.

[J31]. R. Panigrahi, S. K. Mishra, S. C. Srivastava, *A. K. Srivastava*, and N. N. Schulz, “Grid Integration of Small-Scale Photovoltaic Systems in Secondary Distribution Network- A Review”, IEEE Transactions on Industry Applications, 56 (3), pp. 3178-3195, 2020.

[J32]. G. Kandaperumal*, *A. K. Srivastava*, “Resilience of the Electric Distribution Systems: Concepts, Classification, Assessment, Challenges, and Research Needs”, IET Cyber-Physical Systems: Theory & Applications, vol. 3, no. 2, pp. 133-143, April 2020.

[J33]. V. Venkataramanan*, A Hahn, *A. K. Srivastava*, "CP-SAM: Cyber-Physical Security Assessment Metric for Monitoring Microgrid Resiliency", IEEE Transactions on Smart Grid 11(2), pp. 1055-1065, 2019.

[J34]. B. Cui*, *A. K. Srivastava*, P. Banerjee#, "Synchrophasor Based Condition Monitoring of Instrument Transformers using Clustering Approach", IEEE Transactions on Smart Grid, 11(3), pp. 2688-2698, 2019.

[J35]. Y. Jiang* and *A. K. Srivastava*, "Data-Driven Event Diagnosis in Transmission Systems with Incomplete and Conflicting Alarms Given Sensor Malfunctions", IEEE Transactions on Power Delivery, 35(1), 214-225, 2019.

[J36]. V. Venkataramanan*, *A. K. Srivastava*, A. Hahn, S. Zonouz, "Measuring and Enhancing Microgrid Resiliency Against Cyber Threats", IEEE Transactions on Industry Applications, 55(6), pp. 6303-6312, 2019.

[J37]. A. Ahmed*, V. V. G. Krishnan#, S. A. Foroutan*, M. Touhiduzzaman, C. L. Rublein, *A. K. Srivastava*, Y. Wu, A. Hahn, and S. Suresh, "Cyber-physical security analytics for anomalies in transmission protection systems", IEEE Transactions on Industry Applications, vol. 55, no. 6, pp. 6313-6323, Nov.-Dec. 2019.

[J38]. D. K. Mohanta, M. Reddy, J. Bharata, Y. Liao, *A. K. Srivastava*, and S. Corsi, "Guest Editorial: Emerging Trends in System Integrity Protection Schemes (SIPS) for Improving the Performance of Smart Grid", IET Generation Transmission & Distribution, v. 13 (8), pp. 1191-1193, 2019.

[J39]. V. Venkataramanan*, *A. K. Srivastava*, A. Hahn, "CyPhyR: A Cyber-Physical Analysis Tool for Measuring and Enabling Resiliency in Microgrids", IET Cyber-Physical Systems: Theory & Applications, vol. 4, no. 4, pp. 313-321, December 2019.

[J40]. M. Zhou*, Y. Wang, *A. K. Srivastava*, Y. Wu and P. Banerjee#, "Ensemble-based Algorithm for Synchrophasor Data Anomaly Detection", *IEEE Transactions on Smart Grid*, vol. 10, no. 3, pp. 2979-2988, May 2019.

[J41]. C. Pradhan, C. N Bhende#, *A. K. Srivastava*, "Frequency sensitivity analysis of dynamic demand response in wind farm integrated power system", IET Renewable Power Generation 13 (6), 905-919, 2019.

[J42]. V. V. G. Krishnan#, S. Gopal, R. Liu*, A. Askerman, *A. K. Srivastava*, D. Bakken, P. Panciatici, "Resilient Cyber Infrastructure for the Minimum Wind Curtailment Remedial Control Scheme", in *IEEE Transactions on Industry Applications*, vol. 55, no. 1, pp. 943-953, 2019.

[J43]. M. Touhiduzzaman, A. Hahn, *A. K. Srivastava*, "A Diversity-based Substation Cyber Defense Strategy utilizing Coloring Games", IEEE Transactions on Smart Grid, vol. 10, no. 5, pp. 5405-5415, Sept. 2019.

[J44]. W. Sheng, *A. K. Srivastava*, D.- H. Choi, K. Liu, "Guest Editorial: Cyber-Physical Systems for Power Distribution Systems", IET Cyber-Physical System, vol. 4, no. 1, pp. 1-2, March 2019.

[J45]. J. Wei*, Y. Zhang*, F. Sahriatzadeh*, *A. K. Srivastava*, "DLMP Using Three-Phase Current Injection OPF with Renewables and Demand Response", *IET Renewable Power Generation*, vol. 13, no. 7, pp. 1160-1167, 2019.

[J46]. K. G. Ravikumar*, and *A. K. Srivastava*, "Designing Centralized and Distributed System Integrity Protection Schemes for Enhanced Electric Grid Resiliency", *IET Generation, Transmission & Distribution*, vol. 13, no. 8, pp. 1194-1203, 2019.

[J47]. C. Pradhan, C. Bhende#, and *A. K. Srivastava*, "Frequency Sensitivity Analysis of Dynamic Demand Response in Wind Farm Integrated Power System" *IET Renewable Power Generation*, vol. 13, no. 6, pp. 905-919, 2019.

[J48]. N. Kishor, M. A. S. Masoum, A. Nayak and *A. K. Srivastava*, "Guest Editorial: Special Section on Cloud Computing on Smart Grid Operation and Management", IEEE Transactions on Industrial Informatics, vol. 14, no. 3, pp. 1207-1209, March 2018.

[J49]. M. Touhiduzzaman, A. Hahn, *A. K. Srivastava*, "ARCADES: Analysis of Risk from Cyber Attack against DEfensive Strategies for power grid", *IET Cyber-Physical Systems: Theory & Applications*, vol. 3, no. 3, pp. 119-128, 2018.

[J50]. R. Zamora* and *A. K. Srivastava*, "Multi-Layer Architecture for Voltage and Frequency Control in Networked Microgrids", IEEE Transactions on Smart Grid, vol. 9, issue 3, pp. 2076-2085, 2018.

[J51]. R. Anilkumar*, G. Devriese*, *A. K. Srivastava*, "Voltage and Reactive Power Control to Maximize the Energy Savings in Power Distribution System with Wind Energy", *IEEE Transactions on Industry Applications*, *54*(1), 656-664, 2018.

[J52]. B. Cui*, *A. K. Srivastava*, and P. Banerjee#, "Automated Failure Diagnosis in Transmission Network Protection System Using Synchrophasors", *IEEE Transactions on Power Delivery*, vol. 33, no. 5, pp. 2207-2216, Oct. 2018.

[J53]. S. Chanda*, *A. K. Srivastava*, M. Mohanpurkar, R. Hovsapian, "Quantifying Power Distribution System Resiliency Using Code Based Metric", IEEE Transactions on Industry Applications, vol. 54, no. 4, pp. 3676-3686, 2018.

[J54]. V. Gevorgian, A. Monti, M. Stevic, S. Vogel, R. W. De Doncker, A. K. Srivastava, et. al. "A Global Real-Time Superlab: Enabling High Penetration of Power Electronics in the Electric Grid", *IEEE Power Electronics Magazine*, vol. 5, no. 3, pp. 35-44, Sept. 2018.

[J55]. K. A. Joshi#, N. M. Pindoriya, Anurag Srivastava, "A Two-Stage Fuzzy Multiobjective Optimization for Phase-Sensitive Day-Ahead Dispatch of Battery Energy Storage System", *IEEE Systems Journal,* vol. 12, issue 4, 2018.

[J56]. Tushar*, S. Pandey*, *A. K. Srivastava*, P. Markham, and M. Patel, "Online Estimation of Steady-State Load Models Considering Data Anomalies", IEEE Transactions on Industry Applications, vol. 54, no. 1, pp. 712-721, 2018.

[J57]. P. Bajpai#, S. Chanda*, and *A. K. Srivastava*, "A Novel Metric to Quantify and Enable Resilient Distribution System using Graph Theory and Choquet Integral", IEEE Transactions on Smart Grid, vol. 9, no. 4, pp. 2918-2929, July 2018.

[J58]. R. Liu*, *A. K. Srivastava*, D. Bakken, A. Askerman, and P. Panciatici, "Decentralized State Estimation and Remedial Control Action for Minimum Wind Curtailment Using Distributed Computing Platform," IEEE Transactions on Industry Applications, vol. 53, no. 6, pp. 5915-5926, Nov.-Dec. 2017.

[J59]. C. Vellaithurai*, S. Biswas*, and *A. K. Srivastava*, "Development and Application of a Real-Time Test Bed for Cyber-Physical System", IEEE Systems Journal, vol. 11, no. 4, pp. 2192-2203, Dec. 2017.

[J60]. *A. K. Srivastava*, A. Hahn, O. Adesope, C. Hauser, D. Bakken, "Experience with a Multi-Disciplinary, Team-Taught Smart Grid Cyber Infrastructure Course", IEEE Transactions on Power System, vol. 32, no. 3, pp. 2267-2275, May 2017.

[J61]. F. Shariatzadeh*, N. Kumar, and *A. K. Srivastava*, "Optimal Control Algorithms for Reconfiguration of Shipboard Microgrid Distribution System using Intelligent Techniques", IEEE Transactions on Industry Applications, vol. 53, no. 1, pp. 474-482, Jan.-Feb. 2017

[J62]. S. Chanda* and *A. K. Srivastava*, "Defining and Enabling Resiliency of Electric Distribution Systems with Multiple Microgrids", IEEE Transactions On Smart Grid, vol. 7, no. 6, pp. 2859-2868, Nov. 2016.

[J63]. Y. Jiang, C.-C. Liu, M. Diedesch, E. Lee, and *A. K. Srivastava*, "Outage Management of Distribution Systems Incorporating Information from Smart Meters", IEEE Transactions on Power System, vol. 31, no. 5, pp. 4144-4154, Sept. 2016.

[J64]. F. Shariatzadeh*, S. Chanda*, *A. K. Srivastava*, and A. Bose, "Real-Time Benefit Analysis and Industrial Implementation for Distribution System Automation and Control", IEEE Transactions on Industrial Applications, vol. 52, issue 1, pp. 454-454, January 2016.

[J65]. R. Liu*, C. Vellaithurai*, S. Biswas*, T. Gamage, and *A. K. Srivastava*, "Analyzing the Cyber-Physical Impact of Cyber Events on the Power Grid", IEEE Transactions on Smart Grid, vo. 6, no 5, pp. 2444-2453, Sep. 2015.

[J66]. X. Guillaud, M. O. Faruque, A. Teninge, A. Hariri, L. Vanfretti, M. Paolone, V. Dinavahi, P. Mitra, G. Lauss, C. Dufour, P. Forsyth, *A. K. Srivastava*, K. Strunz, T. Strasser, and A. Davoudi, "Applications of Real-Time Simulation Technologies in Power and Energy Systems" *IEEE Journals on Power and Energy Technology Systems*, vol. 2, no. 3, pp. 103-115, September 2015.

[J67]. C. Vellaithurai*, *A. K. Srivastava*, S. Zonouz, and R. Berthier, "CPINDEX: Cyber-Physical Vulnerability Assessment for Power-Grid Infrastructures", IEEE Transactions on Smart Grid, vol. 6, issue 2, February 2015.

[J68]. S. Biswas*, *A. K. Srivastava*, and D. Whitehead, "A Real-Time Data-Driven Algorithm for Health Diagnosis and Prognosis of a Circuit Breaker Trip Assembly", Special Issue on Real-Time Fault Diagnosis and Fault-Tolerant Control, IEEE Transaction on Industrial Electronics, vol. 62, no. 6, pp. 3822-3831, June 2015.

[J69]. S. Biswas*, *A. K. Srivastava*, J. Park, and J. Castaneda, "A New Tool for Testing of Phasor Measurement Units: PMU Performance Analyzer", special issue on Sensors and Data analytics

for Smart Grid Infrastructure, IET Generation, Transmission & Distribution, vol. 9, no. 2, pp. 154-163, August 2014.

[J70]. F. Shariatzadeh*, C. Vellaithurai*, S. Biswas*, R. Zamora*, and *A. K. Srivastava*, "Real-Time Implementation of Intelligent Reconfiguration Algorithm for Microgrid", IEEE Transaction on Sustainable Energy, vol. 5, no. 2, pp. 598-607, April 2014.

[J71]. *A. K. Srivastava*, D. Bakken, and C. Hauser, "*Study Buddies*", IEEE Power and Energy Society Magazine, vol. 11, issue 1, pp. 39-43, January 2013.

[J72]. A. Haque, P. Mandal, J. Meng, *A. K. Srivastava*, B. Tseng, and T. Senjyu, "A Novel Hybrid Approach Based on Wavelet Transform and Fuzzy ARTMAP Network for Predicting Wind Farm Power Production", IEEE Transaction on Industrial Applications, 49 (5), pp. 2253-2261, 2013.

[J73]. P. Mandal, A. Haque, J. Meng, *A. K. Srivastava*, and R. Martinez, "A Novel hybrid Approach Using Wavelet, Firefly Algorithm, and Fuzzy ARTMAP for Day-Ahead Electricity Price Forecasting", IEEE Transactions on Power System, vol. 28, no. 2, pp. 1041-1051, 2013.

[J74]. *A. K. Srivastava*, T. Morris, T. Ernster*, C. Vellaithurai*, S. Pan, and U. Adhikari, "Modeling Cyber-Physical Vulnerability of the Smart Grid with Incomplete Information", IEEE Transactions on Smart Grid, vol. 4, issue 1, pp. 235-244, 2013.

[J75]. P. Kankanala*, S. C. Srivastava, *A. K. Srivastava*, and N. N. Schulz, "Computational Intelligence Application in Optimal Control of Voltage and Power in a Multi Zonal MVDC Power System", IEEE Transaction on Power System, vol. 27, issue 2, pp. 642-650, 2012.

[J76]. *A. K. Srivastava,* A. Kumar* and N. Schulz, "Impact of Distributed Generations with Energy Storage Devices on the Electric Grid", IEEE Systems Journal, vol. 6, no. 1, pp. 110-117, 2012.

[J77]. H. Daneshi, *A. K. Srivastava* "Security Constrained Unit Commitment with Wind Generation and Compressed Air Energy Storage", IET Proceedings on Generation, Transmission and Distribution, vol. 6, issue 2, pp. 167-175, 2012.

[J78]. P. Mandal, *A. K. Srivastava*, and J. W. Park, "An Effort to Optimize Similar Days Parameters for ANN based Electricity Price Forecasting", IEEE Transaction on Industrial Applications, vol. 45, issue 5, pp. 1888-1896, 2009. *(*2008 Prize Paper Award from the Energy Systems Committee, IEEE Industry Applications Society (IAS)).*

[J79]. P. Mandal, T. Senjyu, N. Urasaki, T. Funabashi, and *A. K. Srivastava*, "A novel approach to forecast electricity price for PJM using neural network and similar days Method," IEEE Transaction on power systems, Volume 22, Issue 4, pp. 2058 – 2065, Nov. 2007.

[J80]. *A. K. Srivastava* and M. Shahidehpour, "Restructuring Choices for the Indian Power Sector", IEEE Power Engineering Magazine, Vol. 22, No. 11, Page 25-29, Nov. 2002.

Other Journal Papers:

[J81]. H. Noorazar, A. Srivastava, S. Pannala, K. S. Sajan, "Data-driven Operation of the Resilient Electric Grid: A Case of COVID-19", IET Journal of Engineering, July 2021

[J82]. I. M. Diahovchenko, G. Kandaperumal, A. K. Srivastava, Z. I. Maslova, S. M. Lebedka, "Resiliency-Driven Strategies for Power Distribution System Development", Electric Power Systems Research, April 2021

[J83]. R. Haider, D. D'Achiardi, V. Venkataramanan, A. K. Srivastava, A. Bose, A. M. Annaswamy, "Reinventing the Utility for Distributed Energy Resources: A Proposal for Retail Electricity Markets," Advances in Applied Energy, April 2021

[J84]. Y. Zhang*, and *A. K. Srivastava*, "Voltage Control Strategy for Energy Storage System in Sustainable Distribution System Operation", Energies, January 2021

[J85]. J. Jacobs, C. Kumar, H. Sarmiento, D. Sharafi, and *A. K. Srivastava*, "Power System Operational Resilience – What It Means and Where We Stand", CIGRE Science and Engineering, CSE018, 2020.

[J86]. A Gholami*, *A. K. Srivastava*, and S Pandey*, "Data-Driven Failure Diagnosis in Transmission Protection System with Multiple Events and Data Anomalies", Journal of Modern Power Systems and Clean Energy, 7, pp. 767-778, 2019.

[J87]. M. Panwar, S. Chanda*, M. Mohanpurkar, Y. Luo, F. Dias, R. Hovsapian, and *A. K. Srivastava*, "Integration of Flow Battery for Resilience Enhancement of Advanced Distribution Grids", International Journal of Electrical Power and Energy Systems, v. 19, pp. 314-324, July 2019.

[J88]. *A. K. Srivastava*, T. Ernster*, R. Liu*, and V. G. Krishnan#, "Graph-theoretic algorithms for cyber-physical vulnerability analysis of power grid with incomplete information", *Journal of Modern Power Systems and Clean Energy*, *6*(5), 887-899, 2018.

[J89]. R. Liu*, M. Mohanpurkar, M. Panwar, R. Hovsapian, *A. K. Srivastava*, and S. Suryanarayanan, "Geographically distributed real-time digital simulations using linear prediction", Elsevier, International Journal of Electrical Power & Energy Systems, Vol. 84, pp. 308-317, January 2017.

[J90]. H. Lee*, Tushar*, B. Cui*, A. Mallikeswaran*, P. Banerjee# and *A. K. Srivastava*, "A review of synchrophasor applications in the smart electric grid", Wiley Interdisciplinary Reviews: Energy and Environment, vol. 6, no. 3, 2017

[J91]. S. Chanda*, F. Shariatzadeh*, *A. K. Srivastava*, E. Lee, W. Stone, and J. Ham, "Implementation of Non-Intrusive Energy Saving Estimation for Volt/VAr Control of Smart Distribution System", special issue on Actual implementation of the Smart Grid concept, Electric Power System Research (EPSR), vol. 120, pp. 39-46, March 2015.

[J92]. F. Shariatzadeh*, P. Mandal, and *A. K. Srivastava*, "Demand Response for Sustainable Energy Systems: A Review, Application and Implementation Strategy", Renewable and Sustainable Energy Reviews Journal, vol. 45, pp. 343-350, May 2015.

[J93]. C. Horne, B. Darras, E. Bean, *A. K. Srivastava*, and S. Frickel. "Privacy, technology, and norms: the case of smart meters." *Social Science Research, Elsevier,* Vol. 51, pp. 64–76, May 2015

[J94]. P. Kumar, A. Singh, and *A. K. Srivastava*, "A Novel Optimal Capacitor Placement Algorithm using Nelder-Mead PSO", International Journal of Bio-Inspired Computation, vol. 6, no. 4, pp. 290-302, January 2014.

[J95]. S. K. Srivastava, *A. K. Srivastava*, O. Adesope, A. R. Minerick, and N. Schulz, "Analyzing self-reported challenges and preferences for enhancing recruitment and retention of international female graduate engineering students", Journal of women and minorities in science and engineering, vol. 19, no. 3, pp. 185-208, 2013.

[J96]. A. Chakraborty, S. Musunnuri*, *A. K. Srivastava*, and A. Kondabathini*, "*Integrating STACOM and Battery energy storage system for power system transient stability: A review and application*", Advances in Power Electronics, vol. 2012, Article ID 676010, 2012.

[J97]. V. Vijapurapu*, A Srivastava, and N. Schulz, "Modeling and validation of differential relay using real-time digital simulator", International Journal of Energy Technology and Policy, Vol. 8, Nos. 3/4/5/6, pp. 305-322, 2012.

[J98]. T. Morris, *A. K. Srivastava*, B. Reaves, K. Pavurapu, W. Gao, and R. Reddi*, "A Control System Testbed to Validate Critical Infrastructure Protection Concepts", International Journal of Critical Infrastructure Protection, Vol. 4, issue 2, pp. 88-103, October 2011.

[J99]. S. R. Rudraraju*, S. C. Srivastava, *A. K. Srivastava*, and N. N. Schulz, "Modeling and Simulation of VSC-MVDC System", International Journal of Electric Power and Components System, Vol. 39, issue 11, pp. 1134-1150, Aug. 2011.

[J100]. *A. K. Srivastava*, S. Kamalasadan, D. Patel*, S. Sankar*, and K. S. Al-Olimat, "Electricity Markets: An Overview and Comparative Study", International Journal of Energy Sector Management, vol. 5, issue 2, pp. 169-190, 2011.

[J101]. *A. K. Srivastava*, Krishnanjan G. Ravikumar*, and G. Zweigle, "Wide-Area Monitoring and Control Using the Real-Time Digital Simulator and a Synchrophasor Vector Processor", European Transaction on Electric Power, Vol. 21, issue 4, pp. 1521-1530, May 2011.

[J102]. S. K. Srivastava, *A. K. Srivastava*, A. R. Minerick, and N. N. Schulz, "Recruitment and Retention of International Graduate Students in U.S. Universities", International Journal of Engineering Education, vol. *26*, no. 6, pp. 1561-1574, December 2010.

[J103]. Q. Yu*, N. N. Schulz, and *A. K. Srivastava*, "Multi-Agent Based Reconfiguration of AC-DC Shipboard Distribution Power System", special issue in International Journal of Integrated Computer-Aided Engineering, vol. 17, no. 4, pp. 347-357, December 2010.

[J104]. R. Zamora* and *A. K. Srivastava*, "Controls for Microgrids with Storage: Review, Challenges, and Research Needs", Journal of Renewable and Sustainable Energy Reviews vol. 14, issue 7, pp. 2009-2018, September 2010.

[J105]. *A. K. Srivastava,* B. Annabathina*, and S. Kamalasadan, "Techno-Economic Issues and Policy Options of Plug-in Hybrid Vehicle on Electric Grid", The Electricity Journal, Volume 23, Issue 3, , pp. 83-91, April 2010.

[J106]. S. H. K. Vuppalapati*, and *A. K. Srivastava*, "Application of Ant Colony Optimization for Reconfiguration of Shipboard Power System", International Journal of Engineering, Sciences and Technology, vol. 2, no. 3, pp. 119-131, March 2010.

[J107]. *A. K. Srivastava*, S. R. Rudraraju*, P. Mandal, J. Solanki, and S. Khushalani, "Price Based Unit Commitment with Arbitrage and Emission Constraints Using Genetic Algorithm", International Journal of Power System Optimization, Vol.1 No.2, pp. 125-131, December 2009.

[J108]. P. Mandal, *A. K. Srivastava*, T. Senjyu, and M. Negnevitsky, "A New Recursive Neural Network Algorithm to Forecast Electricity Price for PJM day-ahead market", International Journal of Energy Research, vol. 34, issue 6, pp. 507-522, June 2009.

[J109]. S. Kamalasadan, *A. K. Srivastava*, and D. Thukaram, "A new intelligent algorithm for online voltage stability assessment and monitoring", International Journal of Electric Power and Energy Systems, vol. 31, issue 2-3, pp. 100-110, 2009.

[J110]. P. Mandal, *A. K. Srivastava,* M. Negnevitsky, and J. W. Park, "Sensitivity analysis of neural network parameters to improve the performance of electricity price forecasting", International Journal of Energy Research, vol. 33, No. 1, pp. 38-51, January 2009.

[J111]. A. K Srivastava, S. S Williamson, "Techniques of power factor correction-II", ePower magazine, EFY, pp. 22-26, September 2004.

[J112]. *A. K. Srivastava*, S. S Williamson, "Techniques of power factor correction-I", ePower magazine, EFY, pp. 53-56, July 2004.

[J113]. *A. K. Srivastava*, R. M. Shrestha, S. C. Srivastava, D. Paul, and R. Shrestha "Power sector development in India with CO_2 emission targets: Effects of regional grid integration and the role of clean technologies", International Journal of Energy Research, vol. 27, pp. 671-685, 2003.

VIII.D. White Papers, Position Papers, Letters and Technical Reports

[WP1]. Noel N. Schulz*, Anurag K. Srivastava*. Suresh C. Srivastava#, Santanu Mishra#, Ankush Sharma#, and Sanjeev Pannala*, "Collaborations for Advanced Distribution Systems in India and US – UI-ASSIST", IEEE Smart Grid E-Newsletter, July 2021

[WP2]. *A. K. Srivastava*, A. Hahn, S. Sadanandan#, V. Venkataramanan*, P. Sarker*, J. Sebastian, "Cyber-Physical Modeling and Visualization for Microgrid Resiliency", PSERC Publication 20-01, March 2020.

[WP3]. Md. J. E. Alam, P. J. Balducci, T. D. Hardy, A. Bose, C.-C. Liu, *A. K. Srivastava*, Y. Xu, "*Development and Analysis of Control Strategies for a 1 MW/3.2 MWh Energy Storage System at Avista Utilities",* Report No. PNNL-29730. Pacific Northwest National Lab (PNNL), Richland, WA, 2020.

[WP4]. S. C, Srivastava, N. Schulz, and *A. K. Srivastava*, "Smart Distribution Systems: Advancing the Energy Ecosystem", Connect, Joint Clean Energy Research and Development Center, Jan 2020.

[WP5]. R. Arghandeh, M. Bariya, G. Cotter, D. Deka, D. Dietmeyer, L. Dunn, B. Johanneck, C. Lackner, P. Moutis, S. A. R. Konakalla, Y. Seyedi, A. Shasavari, A. K. Srivastava and A. von Meier, "Synchronized Measurements and their Applications in Distribution Systems: An Update", NASPI report, 2020.

[WP6]. N. D. R. S. Nuthalapati, S. C. Savulescu, Y. Guo, *A. K. Srivastava*, "Real-time Contingency Analysis", IEEE PES Task Force on Real-time Contingency Analysis, 2019.

[WP7]. M. Kezunovic, *A. K. Srivastava*, T. Overbye, S. Meliopoulos, D. Bakken, "Life-Cycle Management of Mission-Critical Systems through Certification, Commissioning, In-Service Maintenance, Remote Testing, and Risk Assessment", PSERC Publication 18-13, 2018.

[WP8]. E. Farantatos, B. Amidan, R. Arghandeh, D. Bienstock, P. Etingov, S. Murphy, F. Omitaomu, M. Rhodes, T. Rizy, *A. K. Srivastava*, K. Sun, X. Zhou, "Data Mining Techniques and Tools for Synchrophasor Data", NASPI report, NASPI-2018-TT-007, 2018

[WP9]. *A. K. Srivastava*, H. Lee, S. Biswas*, A. Meliopoulos, G. Cokkinides, Z. Tan, R. Fan, P. Sauer, K. Reinhard, K. Kirihara, B. Pinte, M. Quinlan, Y. Liu, "Adaptive and Intelligent PMUs for Smarter Applications", Technical Report, PSERC Publication 16-01, January 2016.

[WP10]. A. Hahn, *A. K. Srivastava*, C.-C. Liu, "Smart City Testbed", Tenth Carnegie Mellon Conference on The Electricity Industry: Testbeds for Smart Grids and Smart Cities, 2015.

[WP11]. S. Zonouz, and *A. K. Srivastava*, "Cyber-Physical Educational Simulator for Cyber-Power Infrastructure Security", NSF Energy Cyber-Physical System Workshop, Washington DC, December 2013.

[WP12]. *A. K. Srivastava*, G. Hemingway, A. Bose, J. Sztipanovits, S. Roy and C.-C. Liu, "Model-based Integration Technology to Enable Resilient Next-Generation Electric Grid", NSF Energy Cyber

Physical System Workshop, Washington DC, December 2013.

[WP13]. A. Dubey, G. Karsai, N. Mahadevan, *A. K. Srivastava*, C-C. Liu and S. Lukic, "Understanding Failure Dynamics in the Smart Electric Grid", NSF Energy Cyber Physical System Workshop, Washington DC, December 2013.

[WP14]. *A. K. Srivastava*, S. Biswas*, S. Melioupoulos, E. Polymeneas, and Y. Lee, "Testing and Validation of Phasor Measurement Based Devices and Algorithms", Technical project report, PSERC Publication 13-44, September 2013.

[WP15]. *A. K. Srivastava* et. al, "IEEE Guide for Phasor Data Concentrator Requirements for Power System Protection, Control, and Monitoring", IEEE Std C37.244™-2013, IEEE Standards Association, May 2013.

[WP16]. C. Singh, M. Kezunovic, R. Ayyanar, J. Bushnell, J. Momoh, and *A. K. Srivastava*, "Workforce Development - Meeting the Educational Challenge of the Smart Sustainable Grid", PSERC Publication 12-14, White Paper, May 2012.

[WP17]. J. Sztopanovits, G. Hemingway, A. Bose, and A. K Srivastava, "Model-based Integration Technology for Next Generation Electric Grid Simulations" DOE workshop on computational need for the next generation electric grid, Ithaca, NY, 2011.

[WP18]. T. H. Morris, S. Abdelwahed, A. K Srivastava, R. Vaughn, and Y. Dandass, "Secure and Reliable Cyber Physical Systems", National Workshop on new research directions for future Cyber-Physical Energy Systems, Baltimore, Maryland, June 2009

VIII.E. Refereed Conference Papers

[C1]. A. Acharya, S. Pannala, A. K. Srivastava, and S. R. Bhavirisetty, "Resiliency Planning and Analysis Tool for the Power Grid with Hydro Generation and DERs", North American Power Symposium, Texas A&M University, November, 2021

[C2]. S. Konar, and A. K. Srivastava, "Look-Ahead Corrective Restoration for Microgrids with Flexible Boundary", North American Power Symposium, Texas A&M University, November, 2021.

[C3]. A. Vosughi, A. Gholami, A. K. Srivastava, "Denoising and Bad Data Detection in Distribution Phasor Measurements using Filtering, Clustering and Koopman Mode Analysis", IEEE IAS Annual Meeting, October 2021

[C4]. G. Kandaperumal, S, Pandey, A. K. Srivastava, "Enabling Electric Distribution System Resiliency through Metrics-driven Black Start Restoration", IEEE IAS Annual Meeting, October 2021

[C5]. M. Mustafa Hussain, D. Wang, K. S. Sajan, E. Nag Pilli, R. Huang, *A.* K. Srivastava, J. Lian, Z. Huang, "Cyber-Power Co-Simulation for End-to-End Synchrophasor Network Analysis and Applications", IEEE SmartGridComm, October 2021.

[C6]. L. Jia, G. Kandaperumal, S. Pannala, and A. Srivastava, "Coordinating Energy Resources in an Islanded Microgrid for Economic and Resilient Operation", IEEE IAS Annual Meeting, October 2021

[C7]. V. Venkataramanan, C. Qi, A. M. Annaswamy, C-C. Liu, A. K. Srivastava, "A Two-Step Restoration Scheme with DER Controllability for Resilient Distribution Systems", IEEE IAS Annual Meeting, October 2021

[C8]. S. K. Singh, A. Sharma, S. Mishra, S. C. Srivastava, D. Mukherjee, A. Srivastava, N. Schulz, "A Rural Microgrid Field Pilot in India Ensuring Reliable Electricity Supply and Social Upliftment", IEEE GHTC 2021, September 2021

[C9]. S. M. Hur Rizvi, S K. Sadanandan, A. K. Srivastava, "Data-Driven ZIP Load Parameter Tracking with Variable Elimination Using Synchrophasor Data", IEEE PES General Meeting, July 2021

[C10]. S. Konar* and *A. K. Srivastava*, "Energy Management and Control of Networked AC-DC Microgrids to Enhance Resiliency", North American Power Symposium, April 2021.

[C11]. Anshuman, G. Kandaperumal, L. Jia, S. Pannala, and *A. K. Srivastava*, "RT-RMS: A Real-Time Resiliency Management System for Operational Decision Support", North American Power Symposium, April 2021.

[C12]. H. M. Mustafa, M. Bariya, K. S. Sajan, A. Chhokra, A. Srivastava, A. Dubey, A. von Meier, and G. Biswas, "RT-METER: A Real-Time, Multi-Layer Cyber–Power Testbed for Resiliency Analysis", IEEE/ ACM CPSWeek, MSCPES workshop, Nashville, TN, May 2021.

[C13]. A. Gholami*, *A. K. Srivastava*, "Comparative Analysis of ML Techniques for Data-Driven Anomaly Detection, Classification and Localization in Distribution System", North American Power Symposium, April 2021.

[C14]. A. Meghwani#, S. C. Srivastava, and *A. K. Srivastava*, "Development of Real-Time Distribution System Testbed Using Co-Simulation", National Power Systems Conference (NPSC 2020) Gandhinagar, India, December 17-19, 2020.

[C15]. P. S. Sarker*, A. S. Saini*, S. K Sadanandan#, and *A. K. Srivastava*, "CP-SAM: Cyber-Power Security Assessment and Resiliency Analysis Tool for Distribution System", Resiliency Week, Oct 2020.

[C16]. G. Kandaperumal, Anshuman, S. Pannala, and A. K. Srivastava, "RMDT: Resiliency Monitoring and Decision-Support Tool for Distribution System During a Pandemic", Resiliency Week, Oct 2020 ***(second best paper award).***

[C17]. Anshuman*, Z. Nie*, K. S. Sajan#, and *A. K. Srivastava*, "ML-based Data Anomaly Mitigation and Cyber-Power Transmission Resiliency Analysis", SmartGridCom, November 2020.

[C18]. N. Patari*, *A. K. Srivastava*, G. Qu, and N. Li, "Distributed Optimal Voltage Control for Three Phase Unbalanced Distribution Systems with DERs", IEEE IAS Annual Meeting, Detroit, MI, October 2020.

[C19]. P.S. Nirbhavane*, L. Corson*, S. M. Hur Rizvi*, and *A. K. Srivastava*, "TPCPF: A Three Phase Continuation Power Flow for Voltage Stability Analysis of the Distribution Systems with DERs", IEEE IAS Annual Meeting, Detroit, MI, October 2020.

[C20]. S. M. H. Rizvi*, S. K. Sadanandan#, and *A. K. Srivastava*, "Real-time ZIP Load Parameter Tracking using Adaptive Window and Variable Elimination with Realistic Synthetic Synchrophasor Data", IEEE IAS Annual Meeting, Detroit, MI, October 2020.

[C21]. R. Dutta#, S. Som#, S. Chakrabarti, A. Sharma, and *A. K. Srivastava*, "Event Detection and Localization in Active Distribution Networks using PMUs", IEEE PES General Meeting, Montreal, Canada, August 2020.

[C22]. S. Pandey*, *A. K. Srivastava*, S. Srivastava, M. U. Mohanpurkar, G. Kandaperumal, and R. Hovsapian, "Optimal Operation for Resilient and Economic Modes in an Islanded Alaskan Grid", IEEE PES General Meeting, Montreal, Canada, August 2020

[C23]. S. Pandey*, *A. K. Srivastava*, D. Ishchenko, M. Cintuglu, "Application-Aware Adaptive Reporting of Synchrophasor Measurements", IEEE PES General Meeting, Montreal, Canada, August 2020.

[C24]. P. Sarker*, V. Venkataramanan*, D. S. Cardenas, *A. K. Srivastava*, A. Hahn, and B. Miller, "Cyber-Physical Security and Resiliency Analysis Testbed for Critical Microgrids with IEEE 2030.5", IEEE/ ACM CPSWeek, MSCPES workshop, Sydney, Australia, April 2020.

[C25]. K. S. Sajan#, M. Bariya, S. Basak, *A. K. Srivastava*, A. Dubey, A. Von Meier, and G. Biswas, "Realistic Synchrophasor Data Generation for Anomaly Detection and Event Classification", IEEE/ ACM CPSWeek, MSCPES workshop, Sydney, Australia, April 2020.

[C26]. M. H. Namaki, X. Zhang, S. Singh, A. Ahmed*, A. Foroutan*, Y. Wu, *A. K. Srivastava*, and A. Kocheturov, "Kronos: Lightweight Knowledge-based Event Analysis in Cyber-Physical Data Streams", International Conference on Data Engineering (ICDE), Dallas, TX, May 2020.

[C27]. R. Dutta*, P. Kundu#, and *A. K. Srivastava*, "Dynamic State and Parameter Estimation of Distributed Generators using Constraint Recursive Least Square Algorithm and PMU Data", IEEE International conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE), Kerala, India, January 2020.

[C28]. S. Pannala#, N. P. Padhy, and *A. K. Srivastava*, "Effective Power Management Scheme for Isolated DC Microgrid", IEEE International conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE), Kerala, India, January 2020.

[C29]. S. Paul, N. P. Padhy, S. K. Mishra, *A. K. Srivastava, "*UUCA: Utility-User Cooperative Algorithm for Flexible Load Scheduling in Distribution System", International Conference on Power Systems, Jaipur, India, 2019.

[C30]. C. N. Bhende#, *A. K. Srivastava*, "Control of PV-Battery System for Resiliency Improvement", Intelligent Systems Application in Power, Delhi, India, 2019.

[C31]. A. Gholami*, M. Mousavi, *A. K. Srivastava*, and A. Mehrizi-Sani, "Cyber-Physical Vulnerability and Security Analysis of Power Grid with HVDC Line", North American Power Symposium, Wichita, KS, 2019.

[C32]. S. M. H. Rizvi*, *A. K. Srivastava*, "Comparative Analysis of PMU Based Corridor Voltage Stability Indices and Enhanced Approach", North American Power Symposium, Wichita, KS, 2019.

[C33]. Y. Zhang*, C. Jin, and R. K. Sharma, and *A. K. Srivastava*, "Data-Driven Day-Ahead PV Estimation Using Hybrid Deep Learning", IEEE Industrial Application Society Annual Meeting, Baltimore, MD, 2019.

[C34]. V. Venkataramanan*, P. S. Sarker*, K. S. Sajan#, *A. K. Srivastava*, and A. Hahn, "A Real-Time Transmission-Distribution Testbed for Resiliency Analysis", IEEE Industrial Application Society Annual Meeting, Baltimore, MD, 2019.

[C35]. C. Qin*, J. Greig-Prine*, Z. Nie*, P. Banerjee#, *A. K. Srivastava*, "Remote PMU Testing using Low-cost FPGA Platform and PPA following IEEE TSS", IEEE Industrial Application Society Annual Meeting, Baltimore, MD, 2019.

[C36]. S. A. Foroutan*, *A. K. Srivastava*, "Generator Model Validation and Calibration using Synchrophasor Data", IEEE Industrial Application Society Annual Meeting, Baltimore, MD, 2019.

[C37]. A. Saber and *A. K. Srivastava*, "Deep Learning based Load Forecasting in Python", 22nd International Conference on Computer and Information Technology, Dhaka, Bangladesh, 2019

[C38]. S. Pandey*, N. Patari*, *A. K. Srivastava*, "Cognitive Flexibility of Power Grid Operator and Decision Making in Extreme Events", IEEE PES General Meeting, Atlanta, GA 2019.

[C39]. A. Y Saber, T. Khandelwal, and *A. K. Srivastava*, "Fast Feeder PV Hosting Capacity using Swarm Based Intelligent Distribution Node Selection", IEEE PES General Meeting, Atlanta, GA, 2019

[C40]. Y Zhang*, S Eisele, A Dubey, A Laszka, *A. K. Srivastava*, "Cyber-Physical Simulation Platform for Security Assessment of Transactive Energy Systems", MSCPES, CPS Week, 2019.

[C41]. PS Sarker*, S Biswas, A Mehrizi-Sani, *A. K. Srivastava*, "Modeling and Analysis of Transient Interactions in AC/DC Interconnected Microgrid", IEEE 28th International Symposium on Industrial Electronics (ISIE), 141-146, 2019.

[C42]. A. Hahn, V. Venkataramanan*, J. Waite, *A. K. Srivastava*, "TOMATo: Threat Observability & Monitoring Assessment Tool for Resilience", D2 Colloquium, CIGRE, Helsinki Finland, 2019.

[C43]. I. Diahovchenko#, G. Kandaperumal*, *A. K. Srivastava*, "Distribution Power System Resiliency Improvement Using Distributed Generation and Automated Switching", IEEE 6th International Conference on Energy Smart Systems (ESS), 126-131, 2019.

[C44]. V. Venkataramanan*, *A. K. Srivastava*, A. Hahn, and S. Zonouz, "Enhancing Microgrid Resiliency Against Cyber Vulnerabilities", IEEE Industry Applications Society Annual Meeting (IAS) (pp. 1-8). IEEE, 2018.

[C45]. A. Ahmed*, V. G. Krishnan#, S. Foroutan*, M. Touhiduzzaman, *A. K. Srivastava*, Y. Wu, A. Hahn, and S. Sindhu, "Cyber Physical Security Analytics for Anomalies in Transmission Protection Systems", IEEE Industry Applications Society Annual Meeting (IAS) (pp. 1-8). IEEE, 2018.

[C46]. Y. Guo*, Y. Zhang*, and *A. K. Srivastava*, "Data-Quality Aware State Estimation in Three-Phase Unbalanced Active Distribution System", IEEE Industry Applications Society Annual Meeting (IAS) (pp. 1-7). IEEE, 2018.

[C47]. V. Aravinthan, T. Balachandran, M. Ben-Idris, W. Fei, M. Heidari-Kapourchali, A. H. Don, J. Jiang, H. Lei, C.-C. Liu, J. Mitra, M. Ni, M. Papic, M. Parvania, M. Sephary, Mojtaba and C. Singh, *A. K. Srivastava*, A. Stefanov, H. Sun, and S. Tindemans, "Reliability Modeling Considerations for Emerging Cyber-Physical Power Systems", IEEE International Conference on Probabilistic Methods Applied to Power Systems (PMAPS) (pp. 1-7). IEEE, 2018.

[C48]. A. Arman*, V. G. Krishnan#, *A. K. Srivastava*, Y. Wu, and S. Suresh, "Cyber Physical Security Analytics for Transactive Energy Systems Using Ensemble Machine Learning", North American Power Symposium (NAPS) (pp. 1-6). IEEE, 2018.

[C49]. V. G. Krishnan#, S. Gopal, R. Liu*, Z. Nie*, *A. K. Srivastava*, and D. Bakken, "Resilient Information Architecture Platform for Distributed Linear State Estimation", IEEE Power & Energy Society General Meeting (PESGM) (pp. 1-5). IEEE, 2018.

[C50]. P. Banerjee#, S. Rizvi*, *A. K. Srivastava*, P. Markham, and M. Patel, "Data-Driven Static Load Model Parameter Estimation with Confidence Factor", IEEE International Conference on Probabilistic Methods Applied to Power Systems (PMAPS) (pp. 1-6). IEEE, 2018.

[C51]. V. G. Krishnan[#], S. Gopal, Z. Nie[*], *A. K. Srivastava*, "Cyber-power testbed for distributed monitoring and control", Workshop on Modeling and Simulation of Cyber-Physical Energy Systems (MSCPES) (pp. 1-6). IEEE, 2018.

[C52]. K. G. Ravikumar[*], A. Upreti, *A. K. Srivastava*, "Zero-Setting Algorithm for High-Speed Open Line Detection Using Synchrophasors", IEEE T&D conference and Expo, Denver, CO, April 2018.

[C53]. T. J. Morrell, V. Venkataramanan[*], *A. K. Srivastava*, A. Bose, and C.-C. Liu, "Modeling of Electric Distribution Feeder Using Smart Meter Data", IEEE T&D conference and Expo, Denver, CO, April 2018.

[C54]. V. V. G. Krishnan[#], Y. Zhang[*], K. Kaur, A. Hahn, A. K. Srivastava and S. Sindhu, "Cyber-Security Analysis of Transactive Energy Systems", IEEE T&D conference and Expo, Denver, CO, April 2018.

[C55]. S. Chanda[*] and *A. K. Srivastava*, "Measuring and Enabling Resiliency of the Cyber-Physical Power Grid", Power and Energy Automation Conference, Spokane, WA, March 2018.

[C56]. V. Venkataramanan[*], P. Wang, *A. K. Srivastava*, A. Hahn, and M. Govindarasu, "Interfacing Techniques in Testbed for Cyber-Physical Security Analysis of the Electric Power Grid", MSCPES Workshop, CPS Week, Pittsburgh, 2017.

[C57]. M. Ni, A. K. Srivastava, R. Bo, and J. Yan. "Design of A Game Theory Based Defense System for Power System Cyber Security." In 2017 IEEE 7th Annual International Conference on CYBER Technology in Automation, Control, and Intelligent Systems (CYBER), pp. 1049-1054, 2017.

[C58]. Y. Zhang[*], Y. Xu, *A. K. Srivastava*, and C.-C. Liu, "Voltage Control Strategy in Distribution System with Energy Storage and Distributed Generations", in Proceedings of the 2017 IEEE Industry Applications Society Annual Meeting (IAS), Cincinnati, OH, 1-4 October 2017

[C59]. V. V. G. Krishnan[#], R. Liu[*], A. Askerman, *A. K. Srivastava*, D. Bakken, and P. Panciatici, "Resilient Cyber Infrastructure for the Minimum Wind Curtailment Remedial Control Scheme", in Proceedings of the 2017 IEEE Industry Applications Society Annual Meeting (IAS), Cincinnati, OH, 1-4 October 2017.

[C60]. D. Bakken, A. Askerman, *A. K. Srivastava*, P. Panciatici, M. Seewald, F. Columbus, and S. Jiang, "Towards Enhanced Power Grid Management via More Dynamic and Flexible Edge Computations", Fog World Congress, Santa Clara, CA, Oct. 30-Nov. 1, 2017.

[C61]. S. Chanda[*], *A. K. Srivastava*, M. Mohanpurkar, and R. Hovsapian, "Quantifying Power Distribution System Resiliency Using Code Based Metric", IEEE PEDES, Kerala, India, December 2016.

[C62]. Tushar[*], S. Pandey[*], A. Srivastaava, P. Markham, and M. Patel, "Data-Driven Parameter Estimation of Steady State Load Models", IEEE PEDES, Kerala, India, December 2016.

[C63]. R. Liu[*], *A. K. Srivastava*, A. Askerman, D. Bakken, and P. Panciatici, "Decentralized State Estimation and Remedial Control Action for Minimum Wind Curtailment Using Distributed Computing Platform", IEEE Industrial Application Society Annual Meeting, Portland, OR October 2016.

[C64]. H. Lee[*], S. Niddodi, *A. K. Srivastava*, and D. Bakken. "Decentralized Voltage Stability Control in the Smart Grid using Distributed Computing Architecture", in Proceedings of the 2016 IEEE Industry Applications Society Annual Meeting (IAS), Portland, OR 2-6 October 2016

[C65]. V. Venkataramanan[*], Y. Zhou[*], and *A. K. Srivastava*, "Analyzing Impact of Communication Network Topologies on Reconfiguration of Networked Microgrids", North American Power Symposium, Denver, CO, September, 2016.

[C66]. Y. Jiang, C-C. Liu, M. Diedesch, E. Lee, and *A. K. Srivastava*, "Outage Management of Distribution Systems Incorporating Information from Smart Meters", IEEE Innovative Smart Grid Technologies Conference, Minneapolis, MN, September 2016.

[C67]. A. Mallikeswaran[*], T. Ashwarya, S. Niddodi, *A. K. Srivastava*, D. Bakken, and P. Panciatici, "Cyber Physical Simulation and Remote Testing of Remedial Action Schemes," Proc. of IEEE PES Transmission & Distribution Conference & Exposition, Dallas, TX, May 2-5, 2016.

[C68]. V. Venkataramanan[*], *A. K. Srivastava*, and A. Hahn, "Real-time co-simulation testbed for microgrid cyber-physical analysis", Workshop on Modeling and Simulation of Cyber-Physical Energy Systems (MSCPES), CPS Week, Vienna, Austria, April 2016.

[C69]. P. Chaweewat, J. G. Singh, W. Ongsakul, and *A. K. Srivastava*. "Economic and environmental impact assessment with network reconfiguration in microgrid by using artificial bee colony."

In 2016 International Conference on Cogeneration, Small Power Plants and District Energy (ICUE), pp. 1-7. IEEE, 2016.

[C70]. A. Askerman, D. Bakken, A. Hajbabaie, and *A. K. Srivastava*, "DCBlocks for Secure Consensus within Autonomous Vehicle Formations", CYBERSEC, Coeur D'Alene, ID, March 2016

[C71]. *A. K. Srivastava* and P. Banerjee[#], "Wide Area Close Loop Control in Smart Electric Grid", Power and Energy Automation Conference, Spokane, WA, March 2016

[C72]. V. C. Dev, S. Chakraborty, Y. Guo[*], V. Namboodiri, V. Aravinthan, and *A. K. Srivastava*, "Towards Application-Aware Data Concentration Schemes for Advanced Metering Infrastructures" IEEE SmartGridComm, Miami, FL, November 2015.

[C73]. F. Shariatzadeh[*], N. Kumar[#] and *A. K. Srivastava*, "Intelligent Control Algorithms for Optimal Reconfiguration of Microgrid Distribution System", IEEE Annual Meeting for Industrial Applications, Dallas, TX, October 2015.

[C74]. R. Anilkumar[*], G. Devriese[*], and *A. K. Srivastava*, "Intelligent Volt/VAR Control Algorithm for Active Power Distribution System to Maximize the Energy Savings", IEEE Annual Meeting for Industrial Applications, Dallas, TX, October 2015.

[C75]. P. Banerjee[#], S. Niddodi, H. Lee[*], *A. K. Srivastava*, D. Bakken, and P. Panciatici. "On the Need for Robust Decentralized Coordination to Support Emerging Decentralized Monitoring and Control Applications in Electric Power Grid", in Proceedings of the Fourth Grid of the Future Symposium, CIGRE, October, 2015.

[C76]. Tushar[*], S. Biswas[*], and *A. K. Srivastava*, "A Comparative Study of Model and Measurement based Voltage Stability Approaches", North American Power Symposium, Charlotte, NC, October, 2015.

[C77]. J. Wei[*], L. Corson[*], and *A. K. Srivastava*, "Three-Phase Optimal Power Flow Based Distribution Locational Marginal Pricing and Associated Price Stability", IEEE PES General Meeting, Denver, CO, July 2015.

[C78]. S. Chanda[*], and *A. K. Srivastava*, "Quantifying Resiliency of Smart Power Distribution Systems with Distributed Energy Resources", IEEE International Symposium on Industrial Electronics (ISIE), Buzios, Brazil, June 2015.

[C79]. V. Venkataramanan[*], A. Mallikeswaran[*], and *A. K. Srivastava*, "Analysis of Aircraft Electric Microgrid System with Auxiliary Power Unit Using Real Time Simulation", IEEE International Symposium on Industrial Electronics (ISIE), Buzios, Brazil, June 2015.

[C80]. R. Liu[*], and *A. K. Srivastava*, "Integrated Simulation to Analyze the Impact of Cyber-Attacks on the Power Grid", IEEE Workshop on Modeling and Simulation of Cyber-Physical Energy Systems, CPSWeek, Seattle, WA, April 2015.

[C81]. S. Biswas[*] and *A. K. Srivastava*, "A Novel Online Wide Area Voltage Stability Control Algorithm for Power Systems: RT-VSMAC Tool", IEEE National Power System Conference, Guwahati, India, 18-20 December 2014.

[C82]. F. I. Hernandez[#], C. A. Canesin, R. Zamora[*], *A. K. Srivastava*, "Active Power Management in Multiple Microgrids Using a Multi-Agent System with JADE", IEEE International Conference on Industrial Applications, INDUSCON, Juiz De For a, Brazil, December 7-10 2014.

[C83]. N. Mahadevan, A. Dubey, G. Karsai, *A. K. Srivastava*, and C.-C. Liu, "Temporal Causal Diagrams for Diagnosing Failures in Cyber-Physical Systems", Annual conference of the IEEE prognostics and health management society, Fort Worth, TX, 2014.

[C84]. F. Shariatzadeh[*], S. Chanda[*], *A. K. Srivastava* and A. Bose, "Real Time Benefit Computation for Electric Distribution System Automation and Control", IEEE Annual Meeting for Industrial Applications, Vancouver, Canada, October 2014.

[C85]. S. Ziaeinejad, Y. Sangsefidi, R. Zamora[*], A. Mehrizi-Sani, and *A. K. Srivastava*, "Design of a Fuel Cell–Based Battery Extender Auxiliary Power Unit for a Vehicular Microgrid", Industrial Electronics Conference (IECON'2014), Dallas, TX, USA, October 2014.

[C86]. S. Biswas[*], Tushar[*], and *A. K. Srivastava*, "Performance Analysis of a New Synchrophasor Based Real Time Voltage Stability Monitoring (RT-VSM) Tool", North American Power Symposium, Pullman, WA, September 2014.

[C87]. S. Chanda[*], V. Venkataramanan[*], and *A. K. Srivastava*, "Real Time Modeling and Simulation of Campus Microgrid for Dynamic Analysis", North American Power Symposium, Pullman, WA, September 2014.

[C88]. R. Zamora* and *A. K. Srivastava*, "Energy Management and Control Algorithms for Integration of Energy Storage Within Microgrid", IEEE International Symposium on Industrial Electronics (ISIE), Istanbul, Turkey, June 2014.

[C89]. F. Shariatzadeh*, C. Vellaithurai*, S. Biswas*, R. Zamora*, and *A. K. Srivastava*, "Real Time Implementation of Intelligent Reconfiguration Algorithm for Microgrid", IEEE Transmission and Distribution Conference and Exposition, Chicago, IL, April 2014.

[C90]. P. Chaweewat#, J. G. Singh, W. Ongsakul, and *A. K. Srivastava*, "Synchronization Control and Droop Control of Microgrid Operation", International Conference and Utility Exhibition on Energy (ICUE), Pattaya, Thailand, March 2014.

[C91]. S. Biswas* and *A. K. Srivastava*, "A Fast Algorithm for Voltage Stability Monitoring of Power Systems with Consideration of Load Models", IEEE Industrial Application Society Annual Meeting, Orlando, FL, October 2013.

[C92]. C. Vellaithurai*, *A. K. Srivastava*, and S. Zonouz, "SECPSIM: A Training Simulator for Cyber-Power Infrastructure Security", IEEE SmartGridComm, Vancouver, October 2013.

[C93]. G. Devriese*, F. Shariatzadeh*, and *A. K. Srivastava*, "Volt/VAr Optimization with Energy Savings for Distribution System Using Intelligent Control", North American Power Symposium, Manhattan, KS, September 2013.

[C94]. F. I. Hernández#, C. A. Canesin, R. Zamora*, F. Martina*, and A. K Srivastava, "Real-Time Simulation of Interactions between Photovoltaic Power Systems in an Islanded Microgrid", North American Power Symposium, Manhattan, KS, September 2013.

[C95]. F. Shariatzadeh* and *A. K. Srivastava*, "Look-ahead Control Approach for Thermostatic Electric Load in Distribution System", North American Power Symposium, Manhattan, KS, September 2013.

[C96]. S. Biswas*, *A. K. Srivastava*, "A Novel Method for Distributed Real Time Voltage Stability Monitoring using Synchrophasor Measurements", iREP Symposium, Greece, August 2013.

[C97]. P. Jahangiri*, F. Shariatzadeh*, and *A. K. Srivastava* "Security Constrained Intelligent Reconfiguration of MVDC Shipboard Power System", Intelligent System Application in Power (ISAP), Tokyo, Japan, July 2013.

[C98]. S. Biswas*, F. Shariatzadeh*, R. Beckstorm#, and *A. K. Srivastava*, "Real Time Testing and Validation of Smart Grid Devices and Algorithms", IEEE PES General Meeting, Vancouver, BC, July 2013.

[C99]. M. Johnson, M. Daliparthi*, A. Bose, and *A. K. Srivastava*, "Reliability Analysis and the Volt/VAr Control for Smart Distribution Feeders", Power and Energy Automation Conference, Spokane, WA, March 2013 (invited paper).

[C100]. B. Shah, A. Bose, and *A. K. Srivastava*, "Load Modeling and Voltage Optimization Using Smart Meter Infrastructure", IEEE Innovative Smart Grid technology (ISGT), Washington DC, February 2013.

[C101]. A. Haque, P. Mandal, J. Meng, *A. K. Srivastava*, B. Tseng, and T. Senjyu, "A Novel Hybrid Approach Based on Wavelet Transform and Fuzzy ARTMAP Network for Predicting Wind Farm Power Production", IEEE Industrial Applications Society Annual Meeting, Las Vegas, NV, October 2012.

[C102]. S. Biswas*, J. Kim, and *A. K. Srivastava*, "Development of a Smart Grid Test Bed and Applications in PMU and PDC Testing", North American Power Symposium, Urbana, IL, September 2012.

[C103]. M. Daliparthi*, M. Jakub-Wood, A. Bose, and *A. K. Srivastava*, "Analysis of the Volt/VAr Control Scheme for Smart Distribution Feeders", North American Power Symposium, Urbana, IL, September 2012.

[C104]. F. Shariatzadeh*, P. Nirbhavane*, and *A. K. Srivastava*, "Locational Marginal Price for Distribution System Considering Demand Response", North American Power Symposium, Urbana, IL, September 2012.

[C105]. P. Mandal, A. U. Haque, J. Meng, R. Martinez, and *A. K. Srivastava*, "A Hybrid Intelligent Algorithm for Short-Term Energy Price Forecasting in the Ontario Market", IEEE PES General Meeting, San Diego, CA, July 2012.

[C106]. J. Sztipanovits, G. Hemingway, A. Bose, and *A. K. Srivastava*, "Model-based Integration Technology for Next Generation Electric Grid Simulations", IEEE PES General Meeting, San Diego, CA, July 2012.

[C107]. H. Y. S. Tao, *A. K. Srivastava*, R. L. Pineda, and P. Mandal, "Wind Power Generation Impact on Electricity Price in ERCOT", IEEE PES General Meeting, San Diego, CA, July 2012.

[C108]. A. K Srivastava, C. Hauser, D. Bakken, and M. S. Kim, "Design and Development of a New Smart Grid Course at Washington State University", IEEE PES General Meeting, San Diego, CA, July 2012.

[C109]. T. A. Ernster* and *A. K. Srivastava*, "Power System Vulnerability Analysis –Towards Validation of Centrality Measures", IEEE PES T&D Conference and Exposition, Orlando, FL, May 7-10, 2012.

[C110]. H. Daneshi and A. K Srivastava, "Impact of Battery Energy Storage on Power System with High Wind Penetration", IEEE PES T&D Conference and Exposition, Orlando, FL, May 7-10, 2012.

[C111]. F. Shariatzadeh*, R. Zamora*, and *A. K. Srivastava*, "Real Time Implementation of Microgrid Reconfiguration", North American Power Symposium, (NAPS), Boston, MA, August 4-6th 2011.

[C112]. J. Mitra, N. Cai, M. -Y Chow, S. Kamalasadan, W. Liu, W. Qiao, S. N. Singh, *A. K. Srivastava*, S. K. Srivastava, G. K. Venayagamoorthy, and Z. Zhang, "Intelligent Methods for Smart Microgrids", IEEE PES General Meeting, Detroit, MI, July 26-29 2011 (Invited Panel).

[C113]. H. Daneshi, *A. K. Srivastava*, A. Daneshi, "Security Constrained Unit Commitment with Phase Shifter and Wind Generation", IEEE PES General Meeting, Detroit, MI, July 26 - 29 2011.

[C114]. H. Daneshi, *A. K. Srivastava*, A. Daneshi "ERCOT Electricity Market: Transition from Zonal to Nodal Market Operation", IEEE PES General Meeting, Detroit, MI, July 26 - 29 2011.

[C115]. H. Louie, *A. K. Srivastava*, "Resources for Pre-University Power Engineering Outreach", IEEE PES General Meeting, Detroit, MI, July 26 – 29, 2011 (Invited Panel).

[C116]. *A. K. Srivastava*, R. Zamora*, D. Bowman*, "Impact of Distributed Generation with Storage on Electric Grid Stability", IEEE PES General Meeting, Detroit, MI, July 2011 (Invited Panel).

[C117]. *A. K. Srivastava*, S. K. Srivastava, A. Minerick, and N. N. Schulz, "Survey based comparison of perceptions among alumni and current engineering students at U.S. universities", ASEE Conference and Exposition, Vancouver, BC, Canada June 26-29, 2011.

[C118]. M. Negnevitsky, P. Mandal, and *A. K. Srivastava*, "Applications of Intelligent Algorithm in Forecasting of Load Demand, Electricity Price, and Wind Power Prediction", International Conference on Artificial Intelligence in Science and Technology (AISAT), Hobart, Australia, November 23-24 2010.

[C119]. R. M. Reddi*, and *A. K. Srivastava*, "Real Time Test Bed Development for Power System Operation, Control and Cyber Security", North American Power Symposium, October 2010, Arlington, TX.

[C120]. S. K. Srivastava, *A. K. Srivastava*, A. Minerick, and N. N. Schulz, "Preferences and challenges for female graduate engineering students: A survey-based study", ASEE Conference and Exposition, Louisville, KY, June 20-23 2010.

[C121]. V. Pendurthi*, N. Schulz and *A. K. Srivastava*, "Dealing with Errors in the Measurements for the Reconfiguration of Distribution Power Systems", IEEE T&D conference and exposition, New Orleans, LA, April 19-22 2010.

[C122]. M. Lin*, *A. K. Srivastava* and N. Schulz, "Voltage Stability Assessment of AC/DC Systems", IEEE T&D conference and exposition, New Orleans, LA, April 19-22 2010.

[C123]. H. Daneshi, *A. K. Srivastava*, and A. Daneshi, "Generation Scheduling with Integration of Wind Power and Compressed Air Energy Storage", IEEE T&D conference and exposition, New Orleans, LA, April 19-22 2010.

[C124]. H. Daneshi, *A. K. Srivastava*, and A. Daneshi, "Application of Fuzzy Logic to priced-based Unit Commitment under Price Uncertainty", IEEE T&D conference and exposition, New Orleans, LA, April 19-22 2010.

[C125]. R. Zamora*, and *A. K. Srivastava*, , "Microgrids for Reliable, Clean and Efficient Power Delivery," 4th Annual International Workshop and Expo on Sumatra Tsunami Disaster and Recovery (AIWEST-DR 2009), Banda Aceh, Indonesia, 23-25 November 2009.

[C126]. M. Negnevitsky, P. Mandal, and *A. K. Srivastava*, "Machine Learning Applications for Load and Price Forecasting and Wind Power Prediction in Power Systems", Intelligent System Application in Power System, Curitiba, Brazil, November 8-12 2009.

[C127]. T. Morris, *A. K. Srivastava*, B. Reaves, K. Pavurapu, R. Vaughn, W. McGrew, and Y. Dandass, "Engineering Future Cyber-Physical Energy Systems: Challenges, Research Needs, and Roadmap", North American Power Symposium, Mississippi State, MS, October 4-6 2009.

[C128]. S. Methuku*, *A. K. Srivastava*, and N. N. Schulz, "Comprehensive Modeling and Stability Analysis of Biomass Generation", North American Power Symposium, Mississippi State, MS, October 4-6 2009.

[C129]. P. Kankanala*, S. C. Srivastava, *A. K. Srivastava*, and N. N. Schulz, "Optimal Control of Voltage and Power in a Multi Zonal Shipboard MVDC Power System", North American Power Symposium, Mississippi State, MS, October 4-6 2009.

[C130]. Q. Huang*, N. N. Schulz, *A. K. Srivastava*, and T. Haupt, "Distributed State Estimation with PMU Using Grid Computing", IEEE PES General Meeting, Calgary, Canada, 26-30 July 2009.

[C131]. M. Negnevitsky, P. Mandal, and *A. K. Srivastava*, "An overview of Forecasting Problems and Techniques in Power Systems", IEEE PES General Meeting, Calgary, Canada, 26-30 July 2009.

[C132]. S. K. Srivastava, *A. K. Srivastava*, A. Minerick, and N. N Schulz, "International Graduate Students' Challenges: A Survey-based Study", ASEE annual conference and exposition, Austin, TX, June 14-17 2009.

[C133]. *A. K. Srivastava* and N. N Schulz, "Applications of Real Time Digital Simulator in Power System Education and Research" ASEE annual conference and exposition, Austin, TX, June 2009.

[C134]. V. K. Pendurthi*, N. N. Schulz, S. Doane, and *A. K. Srivastava*, "Cognitive Engineering Studies of DSS and Dealing with Uncertainty in Load for Real-time Adaptive Power System Reconfiguration", IEEE Electric Ship Technologies Symposium (ESTS), Baltimore, MD, 20-22 April 2009.

[C135]. S. R Rudraraju*, *A. K. Srivastava*, and S. C. Srivastava, "Small Signal Stability Analysis of a Shipboard MVDC Power System", IEEE Electric Ship Technologies Symposium (ESTS), , Baltimore, MD, 20-22 April 2009.

[C136]. A. Saran*, *A. K. Srivastava*, and N. N. Schulz, "Modeling and Simulation of Shipboard Power System Protection Schemes Using Coordination of Overcurrent Relay", IEEE Electric Ship Technologies Symposium (ESTS), Baltimore, MD, 20-22 April 2009.

[C137]. P. Mandal, *A. K. Srivastava*, and M. Negnevitsky, "Improving Performance of NN Based Electricity Price Forecasting Using Sensitivity Analysis", Power systems Conference and Exposition (PSCE), Seattle, WA, March 15-18 2009.

[C138]. N. Dahal, V. M. Mohan*, S. S. Durbha, *A. K. Srivastava*, R. L. King, N.H. Younan and N. N. Schulz, "Wide Area Monitoring using Common Information Model and Sensor Web" Power systems Conference and Exposition (PSCE), Seattle, WA, March 15-18 2009.

[C139]. K. G. Ravikumar*, N. N. Schulz, and *A. K. Srivastava*, "Distributed Simulation of Power Systems using Real-time Digital Simulator", Power systems Conference and Exposition (PSCE), Seattle, WA, March 15-18, 2009.

[C140]. M. Garg#, H. Hamilton, *A. K. Srivastava*, and N. N. Schulz, "DC Fault Analysis Using Simulink and RTDS", IEEE Conference & Exhibition on Control, Communication and Automation (INDICON), Indian Institute of Technology, Kanpur, India, December 11-13, 2008.

[C141]. P. Mandal, *A. K. Srivastava*, M. Negnevitsky, and J. -W. Park, "An effort to optimize similar days parameters for ANN based electricity price forecasting", IEEE-IAS 2008 Annual Meeting, Edmonton, Alberta, Canada, October 5-9, 2008.

[C142]. S. Kamireddy*, N. N. Schulz, and *A. K. Srivastava*, "Comparison of State Estimation Algorithms for Extreme Contingencies", North American Power Symposium (NAPS), Calgary, Canada, September 28-30, 2008.

[C143]. Q. Huang*, N. N. Schulz, J. Wu, T. Haupt, and *A. K. Srivastava*, "Power System Decoupled Simulation in MATLAB/SIMULINK", North American Power Symposium (NAPS), Calgary, Canada, September 28-30, 2008.

[C144]. D. Khaniya*, *A. K. Srivastava*, and N. N. Schulz, "Distribution Power Flow for Multiphase Meshed or Radial Systems" North American Power Symposium (NAPS), Calgary, Canada, September 28-30, 2008.

[C145]. A. Saran*, S. K. Palla*, *A. K. Srivastava*, and N. N. Schulz, "Real Time Power System Simulation using RTDS and NI PXI", North American Power Symposium (NAPS), Calgary, Canada, September 28-30, 2008.

[C146]. Q. Yu, J. Solanki, K. Padamati, P. Kankanala*, N. Kumar#, *A. K. Srivastava*, J. Bastos, and N. Schulz, "Intelligent Methods for Reconfiguration of Terrestrial and Shipboard Power Systems", IEEE Power Engineering Society General Meeting (PES GM), Pittsburgh, PA, July 20-24, 2008.

[C147]. Y. Báez-Rivera*, N. N. Schulz, and *A. K. Srivastava*, "Simulations to Study the Stability Issues in a Shipboard Power System", Grand Challenges in Modeling & Simulation, Summer Simulation Conference (SummerSim), Edinburgh, Scotland, June 16-19, 2008.

[C148]. V. Mohan*, N. N. Schulz, and *A. K. Srivastava*, "Common Information Model for Sensors" Grand Challenges in Modeling & Simulation, Summer Simulation Conference (SummerSim), Edinburgh, Scotland, June 16-19, 2008.

[C149]. V. K. Vijapurapu*, N. N. Schulz, *A. K. Srivastava*, and J. Bastos, "Comparative Assessment of Differential relay Model Performance with Hardware Equipment", Grand Challenges in Modeling & Simulation, Summer Simulation Conference (SummerSim), Edinburgh, Scotland, June 16-19, 2008.

[C150]. S. Palla*, *A. K. Srivastava*, and N. N. Schulz, "Modeling and validation of an overcurrent relay using LabVIEW and RTDS", Grand Challenges in Modeling & Simulation, Summer Simulation Conference (SummerSim), Edinburgh, Scotland, June 16-19, 2008.

[C151]. S. Srivastava, *A. K. Srivastava*, A. Minerick, and N. N Schulz, "Challenge for International Students in a Globally Changing Environment", ASEE annual conference and exposition, Pittsburgh, PA, June 22–25, 2008.

[C152]. A. Saran*, P. Kankanala*, *A. K. Srivastava*, and N. N. Schulz, "Designing and Testing Protective Overcurrent Relay using Real Time Digital Simulation", Grand Challenges in Modeling & Simulation, Summer Simulation Conference (SummerSim), Edinburgh, Scotland, June 16-19, 2008.

[C153]. A. A. Kumar*, A. R. Masannagari*, *A. K. Srivastava*, and N. N. Schulz, "Impact of Biomass Based Distributed generation on Electric Grid", Clean technology and Sustainable Industries Conference and Trade Show, Boston, MA, June 1-5, 2008.

[C154]. B. K. Ravulapati*, S. Kamireddy*, *A. K. Srivastava*, and N. N. Schulz, "Developing Corrective and Preventive Actions for Extreme Contingencies", Proceedings of Power System Conference (PSC), Clemson, SC, March 11-14, 2008.

[C155]. A. K. Kondabathini*, K. Padamati, P. Duvoor, and *A. K. Srivastava*, "Simulation of FACTS devices for Power System Security Enhancement Using RTDS", Proceedings of Power System Conference (PSC), Clemson, SC, March 11-14, 2008.

[C156]. A. R. Masannagari*, *A. K. Srivastava*, and N. N. Schulz, "Optimizing Siting and Sizing of DG to maximize Grid Stability", Proceedings of Power System Conference (PSC), Clemson, SC, March 11-14, 2008.

[C157]. A. A. Kumar*, *A. K. Srivastava*, and N. N. Schulz, "Impact of Biomass Based Distributed generation with Energy Storage on Transient Stability of Grid", Proceedings of Power System Conference (PSC), Clemson, SC, March 11-14, 2008.

[C158]. N. Kumar#, S. P. Singh, *A. K. Srivastava*, and N. N. Schulz, "Application of binary Particle Swarm Optimization for Electric Ship Restoration", International Conference on Power System (ICPS 2007), Bangalore, India, December 12-14, 2007.

[C159]. P. Mandal, T. Senjyu, A. Yona, J. -W. Park, and *A. K. Srivastava*, "Sensitivity analysis of Similar days parameters for predicting Short-term electricity Price", North American Power Symposium (NAPS), Las Cruces, NM, September 30 - October 2, 2007.

[C160]. N. Kumar#, *A. K. Srivastava*, and N. N. Schulz, "Shipboard Power System Restoration Using Binary Particle Swarm Optimization", North American Power Symposium (NAPS), Las Cruces, NM, September 30 - October 2, 2007.

[C161]. K. R. Padamati*, N. N. Schulz, and *A. K. Srivastava*, "Application of Genetic Algorithm for Reconfiguration of Shipboard Power System", North American Power Symposium (NAPS), Las Cruces, NM, September 30 - October 2, 2007.

[C162]. B. R. Gautam*, N. N. Schulz, and A. K. Srivastava, "Developing a Survivability Index for Distribution Systems Including Islanding", North American Power Symposium (NAPS), Las Cruces, NM, September 30 - October 2, 2007.

[C163]. M. Lin*, *A. K. Srivastava*, and N. N. Schulz, "Modeling Considerations in Static and Dynamic Voltage Stability Studies of Shipboard Power Systems", Summer Simulation Multiconference (SummerSim), San Diego, CA, July 14-19, 2007.

[C164]. C. Zhang*, V. K Vijapurapu*, A. K Srivastava, and N. N. Schulz, J. Bastos, and R. Wierckx, "Hardware-in-the-Loop Simulation of Distance Relay Using RTDS", Summer Simulation Multiconference (SummerSim), San Diego, CA, Jul 14-19, 2007.

[C165]. P. Mandal, T. Senjyu, N. Urasaki, T. Funabashi, A. Yona, and *A. K. Srivastava*, "Price Forecasting for Day-Ahead Electricity market using Recursive Neural Network", IEEE PES General Meeting, Tampa, FL, June 24 -28, 2007.

[C166]. N. Schulz, H. Ginn III, S. Grzybowski, *A. K. Srivastava*, and J. Bastos, "Ship-to-Shore Collaborations: Integrating Research of Shipboard Power Systems into Today's Power Engineering Research Activities", ASEE annual conference and exposition, Hawaii, June 24–27, 2007.

[C167]. N. Schulz, H. Ginn III, S. Grzybowski, *A. K. Srivastava*, and J. Bastos, "Integrating Shipboard Power System Topics into Curriculum", ASEE annual conference and exposition, Hawaii, June 24–27, 2007.

[C168]. *A. K. Srivastava*, J. Bastos, N. N. Schulz, and H. Ginn III "AC/DC Power System Modeling and Analysis for Shipboard Applications", IEEE PES GM, Tampa, FL, June 24 -28, 2007.

[C169]. S. Palla*, *A. K. Srivastava*, and N. N. Schulz, "Hardware in the Loop Test for Relay Model Validation", Proceedings of IEEE Electric Ship Technologies Symposium (ESTS), Arlington, VA, May 21-23, 2007.

[C170]. Q. Yu*, S. Khushalani, J. Solanki, N. N. Schulz, H. L. Ginn III, S. Grzybowski, *A. K. Srivastava*, and J. Bastos, "Shipboard Power Systems Research Activities at Mississippi State University", Proceedings of IEEE Electric Ship Technologies Symposium (ESTS), Arlington, VA, May 21-23 2007.

[C171]. M. Lin*, *A. K. Srivastava*, and N. N. Schulz, "A Generic Digital Model of Multiphase Synchronous Generator for Shipboard Power System", Proceedings of IEEE Electric Ship Technologies Symposium (ESTS), Arlington, VA, May 21-23 2007.

[C172]. P. Mandal, T. Senjyu, N. Urasaki, T. Funabashi, and *A. K. Srivastava*, "Electricity Price Forecasting for PJM Day-Ahead Market", IEEE PSCE, Atlanta, GA, Oct. 29 - Nov. 1, 2006.

[C173]. J. Wu*, Y. Cheng, *A. K. Srivastava*, N. N. Schulz, and H. L. Ginn III, "Hardware in the loop test for power system modeling and simulation", IEEE PSCE, Atlanta, GA, Oct. 29 - Nov. 1, 2006.

[C174]. Y. Baez-Rivera*, B. Rodriguez-Medina, and A. K Srivastava, "An Attempt to Forecast Price Spikes in Electric Power Markets" NAP,S Carbondale, IL, Sep. 17-19, 2006.

[C175]. P. Duvoor, K. R Padamati*, S. Kotamarty, and A. K Srivastava, "Impact of FACTS Devices on Transmission Pricing and Loop Flows" NAPS, Carbondale, IL, Sep. 17-19, 2006.

[C176]. P. Mandal, T. Senjyu, N. Urasaki, T. Funabashi, and *A. K. Srivastava*, "Short-term Price Forecasting for Competitive Electricity Market", NAPS, Carbondale, IL, Sep. 17-19, 2006.

[C177]. J. Solanki*, S. Khushalani, and *A. K. Srivastava*, "A Genetic Algorithm Approach to Price-Based Unit Commitment", NAPS, Carbondale, IL, Sep. 17-19, 2006.

[C178]. S. Kamalasadan, *A. K. Srivastava*, and D. Thukaram, 'Novel algorithm for online voltage stability assessment based on feed forward neural network', IEEE PES general Meeting, Montreal, Canada, June 18-22, 2006.

[C179]. Q. Yu*, S.-Y. Choe, *A. K. Srivastava*, and W. Gao, "Improved Modeling and control of a PEM fuel cell power system for vehicles", Proceedings of IEEE South East Conference, Memphis, TN March 30- April 2, 2006.

[C180]. A. Hande, S. Kamalasadan, and *A. K. Srivastava*, "A selective voltage measurement system for series connected battery packs", Proceedings of IEEE South East Conference, Memphis, TN, March 30-April 2, 2006.

[C181]. *A. K. Srivastava*, S. Kamalasadan, and A. Hande, 'Comparative performance of improved shrinking span fuzzy logic-based controller', Proceedings of IEEE South East Conference, Memphis, TN, March 30-April 2, 2006.

[C182]. S. Kamalasadan and *A. K. Srivastava*, 'A novel multiagent supervisory loop-based control algorithm for fighter aircraft pitch rate tracking', Proceedings of 21st International conference on computers and their application, Seattle, WA, March 23-25, 2006.

[C183]. *A. K. Srivastava* and A. J. Flueck, 'A Novel and Fast Two-Stage Right Eigenvector Based Branch Outage Contingency Ranking', IEEE/PES General Meeting, San Francisco, CA, 12-16 June, 2005.

[C184]. S. C. Srivastava, B. K. Barnwal, *A. K. Srivastava*, D. Paul, P. Gupta, R. M. Shrestha, and R. Shrestha, "A Study on Environmental & Utility planning implications of Distributed power generation for a regional Electricity Board in India" Power System Conference (PSC), Clemson, SC, September, 2002.

[C185]. S. C. Srivastava, *A. K. Srivastava*, U. K. Rout, B. K. Barnwal, M. Sharma, D. Paul, P. Gupta, R. M. Shrestha, and R. Shrestha "A Study on Environmental Impact of Independent Power Producers in Northern Regional Electricity Board of India" IASTED International Conference on Power and Energy Systems, FL, November 19-22, 2001.

[C186]. S. C. Srivastava, *A. K. Srivastava*, U. K. Rout, M. Sharma, D. Paul, P. Gupta, R. M Shrestha, and S. Karki "Identification of Projects under Clean Development Mechanism for A Regional Electricity Boards of India", IEEE sponsored North American Power Symposium (NAPS), TX, October 15-16, 2001.

[C187]. S. C. Srivastava, *A. K. Srivastava*, U. K. Rout, D. Paul, P. Gupta, and R. M. Shrestha "Least Cost Generation Expansion Planning for a Regional Electricity Board in India Considering Green House Gas Mitigation", IEEE International Conference on Power System Technology, POWERCON, vol. 1, pp. 31-36, Australia, 4-7 December, 2000.

IX. Keynotes/ Invited Talks/ Presentations/ Tutorial

Keynotes/ Plenary/Tutorials/ IEEE Distinguished Lecture:

[ITP1]. *A. K. Srivastava*, "Microgrid as a Resilience Resource", Keynote at International Online Conference on Power Engineering Research & Applications, Theme: Future Perspective of Microgrid, September, 2021

[ITP2]. *A. K. Srivastava*, "Career in Academia", Keynote at International SPARC Course on "Enabling Technologies for Electric Transportation", Jaipur, Rajasthan, September, 2021

[ITP3]. *A. K. Srivastava*, "AI Driven Solutions for the Smart Grid Operation and Control", Keynote at International Online Conference on Smart Grid Energy Systems and Control, National Institute of Technology, Kurukshetra, March, 2021

[ITP4]. *A. K. Srivastava*, "Utilizing Microgrid as a Resilience Resource in the Sustainable Electric Distribution System", Keynote at IEEE ICPEE, Bhubaneshwar, India, January 2021

[ITP5]. *A. K. Srivastava*, "Challenges and Solutions with Integration of Electric Transportation and Electric Grid", Keynote at IEEE SEFET, Hyderabad, India, January 2021

[ITP6]. *A. K. Srivastava*, "Cyber-Physical Resiliency of the Future Electric Grid", Tutorial at the IEEE NPSC, Gandhinagar, India, December 2020.

[ITP7]. *A. K. Srivastava*, "Data-Driven Cyber-Physical Resiliency of the Electric Grid", Tutorial at the IEEE ICIT, Buenos Aires, Argentina, February 2020.

[ITP8]. *A. K. Srivastava*, "Data-Driven Tools to Enable Cyber-Physical Resiliency of the Electric Grid", Keynote at the UPCON, Allahabad, India, November 2020.

[ITP9]. *A. K. Srivastava*, "What's Next in Smart(er) Grid", IEEE Distinguished Talk, International workshop on "Electric Power Grid Modernization: Trends, Challenges and Opportunities", Mysore, India, 20-24th July 2020.

[ITP10]. *A. K. Srivastava*, "Challenges and Opportunities in Smart(er) Grid", Keynote at the Five-day Faculty Development Program on Challenges and Opportunities in smart grid, Bangalore, India, July 2020.

[ITP11]. *A. K. Srivastava*, "Three Lessons from Smart Grid for Your Professional Success", Plenary at IEEE Young Professional Program, IEEE International conference on Power Electronics, Smart Grid and Renewable Energy, Kerala, India, January 2020.

[ITP12]. *A. K. Srivastava*, "Integrating Physics with Machine Learning for Enabling the Resilient Electric Power Grid", IEEE Distinguished Lecture, National University of Singapore, Singapore, January 2020.

[ITP13]. *A. K. Srivastava*, "Data-Driven Resiliency Monitoring and Control of the Electric Grid", (with S. Kamalasadan) Tutorial at IEEE International conference on Power Electronics, Smart Grid and Renewable Energy, Kerala, India, January 2020.

[ITP14]. *A. K. Srivastava*, "Situational Awareness and Decision Support for the Renewable-Rich Electric Grid", Keynote at the Albertian Knowledge Summit (AKS), St. Albert College, Kerala, India, December 2019.

[ITP15]. *A. K. Srivastava*, "Situational Awareness and Decision Support for the Renewable-Rich Electric Grid", Keynote at the International Conference on Advances in Energy Management, (ICAEM), JIET, Jodhpur, India, December 2019.

[ITP16]. *A. K. Srivastava*, "Tools for Enabling the Resilient Electric Grid", Keynote at the International Conference on Power Systems, ICPS, Jaipur, India, December 2019.

[ITP17]. *A. K. Srivastava*, "Integrating Physics with Machine Learning for Enabling the Resilient Electric Power Grid", IEEE Distinguished Lecture, Florida International University, Miami, FL, November 2019.

[ITP18]. *A. K. Srivastava*, "Secure, but Not Resilient", Plenary Talk at the North American Power Symposium, Wichita, KS, October 2019.

[ITP19]. *A. K. Srivastava*, "Quality-Aware Synchrophasor Applications for the Resilient Power Grid Operation and Control", Keynote, SICI Conference, Quito, Ecuador, June 2019.

[ITP20]. *A. K. Srivastava*, "Cyber-Physical Data Analytics to Enable Resilient Electric Grid", IEEE Big Data Tutorial Webinar, June 2019.

[ITP21]. *A. K. Srivastava*, "Data-Driven Resilient Operation and Control of the Cyber-Physical Electric Grid", Keynote, International Conference on Smart Grid and Smart City, Berkeley, CA, June 2019.

[ITP22]. *A. K. Srivastava*, "Resiliency Analysis for the Data-Rich Cyber-Physical Electric Grid", IEEE Distinguish Lecture at Beijing Jiaotong Technical University, Beijing, China, May 2019.

[ITP23]. *A. K. Srivastava*, "Measuring and Enabling Electric Grid Resiliency", University of Hawaii, IEEE Distinguished Lecture, January 2019.

[ITP24]. *A. K. Srivastava*, "Enabling Electric Grid Resiliency: Can Data Analytics Help?", Keynote at IEEE National Power System Conference, India, December 2018.

[ITP25]. *A. K. Srivastava*, "Measuring and Enabling Grid Resiliency Against Weather or Cyber events", Invited Tutorial on IEEE T&D Latin America, Lima, Peru, September 2018.

[ITP26]. *A. K. Srivastava*, A. Hahn, S. Chanda, and J. Hong, "Data-Driven Tools for Cyber-Physical Security and Resiliency Assessment: Part 1 and 2", Invited Tutorial at ISGT, Washington DC, February 2018.

[ITP27]. *A. K. Srivastava*, "What's Next in Smart(er) Grid", Keynote at International Conference on Eco-Smart Sustainable Development in Engineering Technology and Management (ESDETM), Udaipur, India, June 2018.

[ITP28]. *A. K. Srivastava* "Resilient and Flexible Electric Grid", Invited Tutorial at IEEE Power Africa, Cape Town, South Africa, June 2018.

[ITP29]. *A. K. Srivastava*, "Applications of Synchrophasors in Power System Operation and Control", IEEE Distinguished Lecture, Singapore, July 25th, 2017.

[ITP30]. *A. K. Srivastava*, "Applications of Synchrophasors in Power System Operation and Control", IEEE Distinguished Lecture, Manila, Philippines, July 26th, 2017.

[ITP31]. *A. K. Srivastava*, "Applications of Synchrophasors in Power System Operation and Control", IEEE Distinguished Lecture, Hyderabad, India, July 31st, 2017.

[ITP32]. *A. K. Srivastava*, "Cyber-Physical Security and Resiliency Analysis of the Electric Grid", Tutorial, North American Power Symposium, Morgantown, WV, September, 2017

[ITP33]. A. K Srivastava, "Cyber-Physical Security and Resiliency of the Electric Grid", Plenary talk, ICPS, Pune, December, 2017.

[ITP34]. *A. K. Srivastava*, "Data-Driven Algorithms for Electric Grid Operation and Control", IEEE Distinguished Lecture, IIT Kanpur, India, August 4th, 2017.

[ITP35]. *A. K. Srivastava*, "What's Next in Smart(er) Grid", IEEE Distinguished Lecture, Integral University, Lucknow, India, August 3rd, 2017.

[ITP36]. *A. K. Srivastava*, "Defining and Enabling Resiliency with the Multiple Microgrid", IEEE Distinguished Lecture, Rolls Royce, Singapore, July 25th, 2017.

[ITP37]. *A. K. Srivastava*, "What's Next in Smart(er) Grid", Keynote, International Conference on Smart Grid and Smart Cities (ICSGSC), Singapore, July 24th, 2017.

[ITP38]. *A. K. Srivastava*, "Defining and Enabling Resiliency with Microgrids", University of Lorraine, France, IEEE Distinguished Lecture, April 14th 2017.

[ITP39]. *A. K. Srivastava*, "Analyzing Cyber Requirements for the Smart Grid Applications", Invited Plenary Talk, SmartGift, London, UK, March 2017.

[ITP40]. *A. K. Srivastava*, "Meeting Synchrophasors Data Quality Requirement for Critical Applications", Keynote, National Power Systems Conference, Orissa, India, December 2016.

[ITP41]. *A. K. Srivastava*, "Defining and enabling microgrid resiliency", Tutorial, IEEE Power Electronics, Drives and Energy Systems, Kerala, India, December 2016.

[ITP42]. *A. K. Srivastava*, "Application of Synchrophasors for Power Grid Operation and Control", IEEE Innovative Smart Grid Conference, Bangkok, Thailand, Full Day Tutorial, November 2015.
[ITP43]. *A. K. Srivastava*, "Synchrophasor Applications for the Smarter Electric Grid**",** Plenary Talk, IEEE National Power System Conference, Guwahati, India, 18-20 December 2014.
[ITP44]. *A. K. Srivastava* "Synchrophasor Applications for the Smart Electric Grid", IEEE Distinguished Lecture, University College of Dublin, Dublin, Ireland, June 12th, 2014.
[ITP45]. *A. K. Srivastava* "Modeling and Simulation for the Analysis of the Cyber-Power System", IEEE Distinguished Lecture, Cardiff University, Cardiff, Wales, June 9th, 2014.
[ITP46]. *A. K. Srivastava* "Cyber-Physical Modeling and Co-Simulation for the Smart Electric Grid", IEEE Distinguished Lecture, Strathclyde University, Glasgow, Scotland, June 6th, 2014.
[ITP47]. *A. K. Srivastava* "Cyber-Physical Modeling and Analysis of the Smart Electric Grid", IEEE Distinguished Lecture, University of Aberdeen, Aberdeen, Scotland, June 5th, 2014.

Other Talks (Panels, Invited):

[ITP48]. A.K. Srivastava, "Enabling Operational Resilience for the DER-rich Active Power Distribution System", IEEE PES Day Webinar, Columbus, OH, April 2021
[ITP49]. N. Schulz and A. Srivastava, "Enabling Operational Resilience for the DER-rich Active Power Distribution System", Edison Electric Institute, April 2021
[ITP50]. A. K. Srivastava, "Epistemology of Electric Grid Resilience", ComEd, March 2021
[ITP51]. A. K. Srivastava, "Cyber-Power Interdependence Modeling and Resiliency Analysis", Webinar for IEEE PES TF on Cyber-Physical Interdependence for Power System Operation and Control, February, 2021.
[ITP52]. Z. Huang, A. Srivastava and D. Wang, "GridSandbox: End-to-end Analytics for Grid Architectural Design and All-hazard Assessment", PNNL-WSU AGI Day, February, 2021.
[ITP53]. *A. K. Srivastava*, "Microgrid as a Resilience Resource in the Distribution System", IEEE PES Tech Talk, Palouse Section, November 2020.
[ITP54]. A. K. Srivastava, "Synchrophasor Data Analytics for Anomaly Detection, Classification, and Localization in the Electric Grid", Grid Science Winter School and Conference, Lawrence Livermore National Lab, January 2021.
[ITP55]. *A. K. Srivastava*, "Enabling the Resilient Electric Grid", PSERC Webinar, November 2020.
[ITP56]. *A. K. Srivastava*, "*AI Driven Solutions for the Power Grid Operation and Control*", ATAL FDP on 'Application of Artificial Intelligence in Power System Operation and Control', NIT Calicut, India, November 2020.
[ITP57]. *A. K. Srivastava*, E. Andersen, and A. Ashok, "Enabling Power Grid Resiliency: Tools for Operators and Cognitive Analysis", Advanced Grid Institute/ ESIC Webinar, October 2020
[ITP58]. D. Wang, J. Lian, S. Sadanandan, and *A. K. Srivastava*, "GridSandbox: End-to-end Analytics for Grid Architectural Design and All-hazard Assessment", Advanced Grid Institute/ ESIC Webinar, September 2020.
[ITP59]. S. Pannala, S. Partha, K.S. Sajan and *A. K. Srivastava*, "Tools for Measuring and Enabling Operational Resiliency with DERs", IEEE PES General Meeting Panel Session, August 2020.
[ITP60]. *A. K. Srivastava*, S. M. H. Rizvi, K. G. Ravikumar, "Impact of Active Distribution System on Transmission System Voltage Stability and Control for FIDVR", IEEE PES General Meeting Panel Session, August 2020.
[ITP61]. A. K. Srivastava, "Anomaly and Event Detection, Classification, Localization and Root Cause Analytics for the Decision Support", PSERC Summer Workshop, July 2020.
[ITP62]. *A. K. Srivastava*, "Challenges and Opportunities in Smart(er) Grid", FDP on Challenges and Opportunities in Smart Grid, Ramaiah Institute of Technology, 20-24 July 2020.
[ITP63]. *A. K. Srivastava*, "What's Next in Smart(er) Grid," International workshop on Electric Power Grid Modernization: Trends, Challenges and Opportunities, NIE Mysore, 20-24 July 2020.
[ITP64]. *A. K. Srivastava*, "Data-Driven Tools for Cyber-Physical Resiliency of the Electric Grid", Advanced Grid Institute Meeting, April 2020.
[ITP65]. *A. K. Srivastava*, "IEEE PES Synchrophasor Applications in Power System Operations and Control", NERC Synchronized Measurement Subcommittee (SMS) Meeting, April 2020.
[ITP66]. *A. K. Srivastava*, "Integrating Physics with Machine Learning for Enabling the Resilient Electric Power Grid", IIT Roorkee, India, December 2019 .

[ITP67]. *A. K. Srivastava*, "Integrating Physics with Data Analytics for Cyber-Physical Event Detection, Classification and Root Cause Analysis", Workshop on Cyber-physical Security Analytics for the Power Grid by Siemens and Princeton University, Princeton, October 2019.

[ITP68]. *A. K. Srivastava*, "Tools for Enabling the Resilient Electric Grid", EMS Working Group, North American Electric reliability Corporation, Atlanta, GA, October 2019.

[ITP69]. *A. K. Srivastava*, "Measuring and Enabling the Cyber-Physical Resiliency of the Electric Grid", Panel on Enhancing Cyber-Physical Security and Resilience of Smart Grid, INFORMS Annual Meeting, Seattle, WA, October 2019.

[ITP70]. *A. K. Srivastava*, "Challenge and solutions with electrification of transportation and electric grid integration", Workshop on Research challenges in Smart and Connected Communities presented by the rapid integration of mobility and electrical infrastructure, NSF PI Meeting, Alexandria, VA, October 2019.

[ITP71]. *A. K. Srivastava*, "Measuring and Enabling Resiliency of the Electric Grid", National Renewable Energy Lab, August 2019.

[ITP72]. *A. K. Srivastava* and A. Hahn, "Enabling Cyber Physical Resilience of the Electric Grid", PSERC Meeting, Sedona, AZ, July 2019.

[ITP73]. *A. K. Srivastava* and M. Kezunovic, "PMU Data Quality-Aware Applications and Applications Aware Sensing", PSERC Meeting, Sedona, AZ, July 2019.

[ITP74]. *A. K. Srivastava*, "Enabling the Resilient Cyber-Physical Electric Grid", Arizona State University, July 2019.

[ITP75]. *A. K. Srivastava*, "Data Analytics for the Resilient Cyber-Physical Electric Grid", Panel, ISGT Asia, Chengdu, China, May 2019.

[ITP76]. *A. K. Srivastava*, "Augmenting and Advancing Cognitive Performance of Control Room Operators for Power Grid Resiliency", JSIS Meeting, Salt Lake City, UT, May 2019.

[ITP77]. *A. K. Srivastava*, "Enabling Resilient Electric Grid", Opening Plenary for Resiliency Workshop, ISGT Asia, Chengdu, China, May 2019.

[ITP78]. V. Venkataraman, *A. K. Srivastava*, and A. Hahn, "Cyber-Physical Resiliency Experimentation using RTDS", RTDS User conference, May 2019.

[ITP79]. *A. K. Srivastava*, "PMU Data Analytics for the Resilient Electric Grid", PSERC Webinar, April 2019.

[ITP80]. *A. K. Srivastava*, "Data-Driven Resiliency Analysis for the Cyber-Physical Electric Grid", University of Nevada, Reno, April 2019.

[ITP81]. *A. K. Srivastava* and S. Pandey, "PMU Metrology and Quality-Aware Power Grid Applications", PMU Metrology Workshop, Pacific Northwest National Lab, Richland, WA, April 2019.

[ITP82]. *A. K. Srivastava*, "Measuring and Enabling Electric Grid Resiliency: A data-driven approach", University of California Berkley, February 2019.

[ITP83]. *A. K. Srivastava*, "Enabling Resilient Electric Grid", Invited talk at NSF Workshop and Data Analytics and DER integration, IIT Mumbai, January 2019.

[ITP84]. *A. K. Srivastava*, "Cyber-Physical Security and Resiliency of the Electric Grid", Invited talk at regional Power System Operation Corporation (POSOCO), Bangalore, December 2018.

[ITP85]. *A. K. Srivastava*, "Smart Grid Operation and Control", IEEE Workshop on the Smart Grid, Bhubaneshwar, Orissa, December 2018.

[ITP86]. *A. K. Srivastava*, "Smart Grid Begins with You", Invited talk at IEEE IAS Young Professional Program, Chennai, India, December 2018.

[ITP87]. *A. K. Srivastava* "Power Up Your Future", WSU Freshman/ Sophomore Outreach Event, September 2018.

[ITP88]. *A. K. Srivastava*, "Measuring and Enabling Resiliency in Microgrids", Invited talk at Microgrid Symposium, Bucharest, Romania, September 2018.

[ITP89]. D. Bakken, *A. K. Srivastava*, A. Askerman, and V. Krishnan, "Resilient Distributed Control Using Fog Computing", Invited panel at IEEE PESGM 2018, Portland, August 2018.

[ITP90]. *A. K. Srivastava*, V. V. G Krishnan, S. Suresh, "Cyber-Physical Simulation Architecture for Distributed Control and Transactive Energy", Invited panel at IEEE PESGM 2018, Portland, August 2018.

[ITP91]. *A. K. Srivastava*, "Meeting Synchrophasor Data Quality Requirement for Critical Applications", PEAK Reliability Coordinator, Vancouver, WA, July 2018.

[ITP92]. *A. K. Srivastava*, "Electric Power Grid and Energy issues", Pacific Northwest Economic Region Annual Summit, Spokane, WA, July 2018.

[ITP93]. *A. K. Srivastava*, "Defining and Enabling Resiliency in the Electric Power Grid", Invited talk at Workshop on Smart Grid and Computational Approaches, Kadir Has University, Istanbul, Turkey, May 2018.

[ITP94]. *A. K. Srivastava*, "Quality-Aware Synchrophasor Applications in Power System Operation", Invited talk at Workshop on Smart Grid and Computational Approaches, Kadir Has University, Istanbul, Turkey, May 2018.

[ITP95]. P. Banerjee, *A. K. Srivastava*, E. Farantatos, and M. Patel "Model validation with PMU Emulator and using PNNL EKNF tool", JSIS, May 2018.

[ITP96]. *A. K. Srivastava*, "Data Quality-Aware Synchrophasor Applications in Power System Operation and Control", University of Porto, Porto, April 2018.

[ITP97]. Tushar, V. Vignesh, P. Banerjee, and *A. K. Srivastava*, "Enhancing the System Resiliency using PMU based RAS Scheme", NASPI Meeting, April 2018.

[ITP98]. *A. K. Srivastava*, A. Hahn, V. V. G. Krishnan, Y. Zhang, K. Kaur, A. Ahmed, J. Pi, S. Suresh, "Cyber Physical Security Analysis for Transactive Energy Systems", IEEE Smart Grid Webinar, March 2018.

[ITP99]. *A. K. Srivastava*, "Measuring and [Enabling] Resiliency of the Cyber-Physical Power Grid", Power and Energy Automation Conference (PEAC), Spokane, March 2018.

[ITP100]. *A. K. Srivastava*, "Mitigation, Remedial Actions and Resiliency of the Electric Grid", Invited talk at Department of Homeland Security, FEMA Region X Power Grid Risk Workshop, February 2018.

[ITP101]. *A. K. Srivastava*, "Wide Area Monitoring and Control of Cyber Power Systems", Short course sponsored by GIAN, NIT Warangal, India, December 2017.

[ITP102]. *A. K. Srivastava*, A. Hahn, V. V. G. Krishnan, Y. Zhang, K. Kaur, P. Jiaxing, and S. Suresh, "Data Analytics for Cyber Physical Security Analysis", The Cyber Resilient Energy Delivery Consortium (CREDC) Northwest Workshop, Richland, WA, November 28-29, 2017.

[ITP103]. V. Venkataramanan, *A. K. Srivastava*, A. Hahn, and S. Zonouz, "Metrics and Tools for Measuring Cyber Resiliency of Electric Grids", The Cyber Resilient Energy Delivery Consortium (CREDC) Northwest Workshop, Richland, WA, November 28-29, 2017.

[ITP104]. *A. K. Srivastava*, "Enabling Electric Grid Resiliency", Panel On: Long-term Challenges and Directions to Achieve Grid Security and Resiliency, NSF CPS PI meeting, Arlington, VA, November 14, 2017.

[ITP105]. *A. K. Srivastava*, "PMU Emulator for Power System Dynamics Simulators", Joint Synchronized information Subcommittee, Westminster, CA, October 11-13, 2017.

[ITP106]. *A. K. Srivastava*, "SyncAD: Ensemble Based Data Mining Tool for Anomaly Detection In PMU data and Event Detection", Joint Synchronized information Subcommittee, Westminster, CA, October 11-13, 2017.

[ITP107]. A. Hahn, *A. K. Srivastava*, J. Pi, and S. Suresh, "Cyber-Security Analytics for Transactive Energy Systems", Data Analytics in Smart Grid (DASG) Workshop, Pullman, WA, 28th August 2017.

[ITP108]. Y. Wu and *A. K. Srivastava*, "Ensemble based Technique for Synchrophasor Data Anomaly and Events Detection", Data Analytics in Smart Grid (DASG) Workshop, Pullman, WA, 28th August 2017.

[ITP109]. *A. K. Srivastava*, "Data Analytics for Synchrophasor Data Anomaly Detection and Cybersecurity", Panel Session: Data Science Education and Research in Power System, IEEE PESGM, Chicago, IL, July 19th, 2017.

[ITP110]. *A. K. Srivastava*, "Cyber-Resilient Remedial Control Action Schemes to Manage Wind Curtailment", Panel Session: Security Analysis and Control of Cyber-Physical Systems (CPS), IEEE PESGM, Chicago, IL, July 20th, 2017.

[ITP111]. *A. K. Srivastava*, "Fault-Tolerant Distributed Computing Platform for Resilient Control in Cyber-Power System", Panel Session: Resilient Control Systems for Cyber Physical Power and Energy Systems, IEEE PESGM, Chicago, IL, July 20th, 2017.

[ITP112]. *A. K. Srivastava*, "Data-Driven Algorithms for Power Grid Operation and Control", Delft University of technology, TU-Delft, Netherland, July 14th, 2017.

[ITP113]. *A. K. Srivastava*, "Data-Driven Algorithms for Power System Operation and Control", RWTH Aachen University, Aachen, Germany, June 30th, 2017.
[ITP114]. *A. K. Srivastava*, "Data-Driven Algorithms for Power System Operation and Control", IIT Kharagpur, India, June 13th, 2017.
[ITP115]. *A. K. Srivastava*, "Defining and Enabling Resiliency in the Active Distribution System", IIT Kharagpur, India, June 13th, 2017.
[ITP116]. *A. K. Srivastava*, "What's Next in Smart(er) Grid", TCS Bangalore, India, June 2nd, 2017.
[ITP117]. *A. K. Srivastava*, "Defining and Enabling Resiliency of the Electric Grid", Indian Institute of Science, Bangalore, India, June 1st, 2017.
[ITP118]. *A. K. Srivastava*, "Data Mining based Anomaly Detection In PMU Measurements and Event Detection", Joint Synchronized information Subcommittee, Salt Lake City, UT, May 2017.
[ITP119]. *A. K. Srivastava*, "Data-Driven Algorithms for Power System Operation and Control", RTE-France, April 13th, 2017.
[ITP120]. *A. K. Srivastava*, "Defining and Enabling Resiliency of Electric Power Systems with renewable Energy and Microgrids", North American Electric Reliability Corporation, Atlanta, GA, March 3rd, 2017.
[ITP121]. *A. K. Srivastava*, "Ensemble Based Technique for Synchrophasor Data Quality and Analyzing its Impact on Applications", NASPI, March 2017.
[ITP122]. *A. K. Srivastava*, "Failure Diagnosis and Cyber Intrusion Detection in Transmission Protection System Assets using Synchrophasor Data", NASPI, March 2017.
[ITP123]. *A. K. Srivastava*, "Cyber-Physical Analysis for PMU Data Quality and Synchrophasor Applications", WSU Tri-Cities, February 22nd, 2017.
[ITP124]. *A. K. Srivastava*, "Data-Driven Algorithms for Power System Operation and Control", Pacific Northwest National Lab, Richland, WA, February 1st, 2017.
[ITP125]. *A. K. Srivastava*, "Microgrid HIL Simulation and Defining and Enabling Resiliency with Multiple Microgrids", MIT Lincoln Lab, January 20th, 2017.
[ITP126]. B. Cui, P. Banerjee, and *A. K. Srivastava*, "Failure Diagnosis in Transmission Protection System Using Synchrophasor Data", NASPI, Seattle, October 2016.
[ITP127]. H. Lee, P. Banerjee, *A. K. Srivastava*, E. Farantatos, and M. Patel, "PMU Emulator for Power System Dynamics Simulators and Model Validation", NASPI, Seattle, October 2016.
[ITP128]. A. Hahn and *A. K. Srivastava*, "Cyber-Physical Smart Grid Testbeds at Washington State University", Panel, IEEE ISGT, September 2016.
[ITP129]. *A. K. Srivastava*, "Synchrophasor Applications and Impact of Data Quality", Rutgers University, Princeton, NJ, August 19, 2016.
[ITP130]. *A. K. Srivastava*, "Cyber-Physical Analysis of Synchrophasor Applications", Drexel University, Philadelphia, PA, August 17, 2016.
[ITP131]. *A. K. Srivastava*, "Energy Management and Control Algorithms for Microgrids", Harvard University, Cambridge, MA, July 29, 2016.
[ITP132]. *A. K. Srivastava*, "Research Activities at Smart Grid Demonstration and Research Investigation Lab (SGDRIL)", Online Webinar to Siemens, June 2016.
[ITP133]. *A. K. Srivastava*, "Cyber-Physical Analysis of Synchrophasor Applications", Power Engineering Forum, Schweitzer Engineering Lab, April 27, 2016.
[ITP134]. *A. K. Srivastava*, "PMU Data Quality and Impact on Critical Smart Grid Applications", IEEE PES Young Professionals Webinar Series, April 25, 2016.
[ITP135]. *A. K. Srivastava*, H. Lee, M. Zhou, P. Banerjee, E. Farantatos, and M. Patel, "Making Dynamic Simulations Output Comparable to Synchrophasor Measurements of PMUs", NASPI International Symposium, Atlanta, GA, March 2016.
[ITP136]. *A. K. Srivastava*, "Advances in Power System Operation and Control Using Synchrophasors (PMUs)", Full Day Workshop, Central Power Research Institute/ IEEE, January 8th, 2016.
[ITP137]. *A. K. Srivastava*, "Analyzing Impact of PMU Data Quality on Critical Smart Grid Applications", Indian Institute of Technology, Kanpur, India, December 18th, 2015.
[ITP138]. *A. K. Srivastava*, "What's Next After the Smart Grid", ICAER, Mumbai, December 17th, 2015.
[ITP139]. *A. K. Srivastava*, "Meeting PMU Data Quality Requirements for Mission Critical Applications" Webinar for Power Systems Engineering Research Center (PSERC), November 17th, 2015.

[ITP140]. A. Mallikeswaran, P. Banerjee, *A. K. Srivastava*, D. Bakken, and P. Panciatici, "ERKIOS: In-field Testing and Validation of Synchrophasor based Remedial Action Scheme (RAS)", NASPI, Chicago, IL, October 2015.

[ITP141]. Tushar and *A. K. Srivastava*, "Real Time Voltage Stability Monitoring & Control (RTVSMAC)", Joint Synchronized Information Subcommittee, WECC, Salt Lake City, UT September 2015.

[ITP142]. Tushar and *A. K. Srivastava*, "Data Mining Application for PMU bad data detection", Joint Synchronized Information Subcommittee, WECC, Salt Lake City, UT September 2015.

[ITP143]. *A. K. Srivastava*, "Real Time Voltage Stability Monitoring and Control (RTVSMAC)", Idaho Power, Boise, ID August 22nd, 2015.

[ITP144]. *A. K. Srivastava*, "Synchrophasor Research Work at Smart Grid Demonstration and Research Lab", Hydro-Quebec IREQ, Montreal, Canada, July 10th, 2015.

[ITP145]. *A. K. Srivastava*, "CYBER-Physical and smart grid fundamentals", TCIPG Summer School, Chicago, IL, June 15th, 2015

[ITP146]. C. -C. Liu, *A. K. Srivastava*, and A. Hahn, "Smart City Testbed", Energy Systems Workshop, Carnegie Mellon University, PA, March 2015.

[ITP147]. H. Lee, R. Liu, and *A. K. Srivastava*, "PMU Emulator and Animation for Synchrophasor Education (SynchroEd)", NASPI Meeting, March 2015.

[ITP148]. *A. K. Srivastava*, "Analyzing Impact of PMU Performance on Wide Area Applications Using Modeling and Simulations", Webinar at Electric Power Research Institute (EPRI), February 2015.

[ITP149]. *A. K. Srivastava*, "Applications of Synchrophasors for Power Grid Operation and Control**",** Synchrophasor workshop at Central Power Research Institute (CPRI), Bangalore, India, January 6th, 2015.

[ITP150]. *A. K. Srivastava*, "Smart grid demonstration and research investigation lab**",** Information Science Institute (ISI), Marina Del Rey, CA, December 12th, 2014.

[ITP151]. *A. K. Srivastava*, "Synchrophasor Device Testing and Voltage Stability Applications for the Electric Grid", Electric Reliability Council of Texas (ERCOT), Austin, TX, October 24th, 2014.

[ITP152]. *A. K. Srivastava*, "Real Time Voltage Stability Monitoring & Control (RTVSMAC) and PMU Performance Analyzer (PPA) for Control Center Applications", Lower Colorado River Authority, Austin, TX, October 24th, 2014.

[ITP153]. *A. K. Srivastava*, "Real Time Voltage Stability Monitoring of Power Systems Using 'RT-VSM Tool", New York Power Authority (NYPA), October 17th, 2014.

[ITP154]. *A. K. Srivastava*, "Real Time Voltage Stability Monitoring of Power Systems Using 'RT-VSM Tool", Webinar to PJM Interconnection, October 2nd, 2014.

[ITP155]. *A. K. Srivastava*, "Energy Management and Control Algorithms for Active Distribution Systems", Oregon State University, Corvallis, OR August 14th, 2014.

[ITP156]. *A. K. Srivastava*, "A Cyber-Power Security Course at Washington State University for Smart Grid Workforce Development", Panel Session: Educational Tools for the Workforce Development for the Future Grid to Enable Sustainable Energy Systems, IEEE Power and Energy Society general Meeting, Washington DC, July 31st, 2014.

[ITP157]. *A. K. Srivastava*, "Robust Control and Energy Management Algorithms for Microgrid", Panel Session, IEEE Power and Energy Society general Meeting, July 29th, 2014.

[ITP158]. *A. K. Srivastava*, "Modeling, Simulation and Analysis of Cyber-Power Systems", NSF US-China workshop, Nanjing, China, May 15th, 2014.

[ITP159]. *A. K. Srivastava*, "Testing and Validation of Synchrophasor Devices and Applications", PSERC Public Webinar, May 6th, 2014.

[ITP160]. *A. K. Srivastava*, "Cyber-Physical System Security for the Smart Electric Grid", University of Texas, El Paso, TX, March 21st, 2014.

[ITP161]. *A. K. Srivastava*, "Modeling and Analysis of Cyber-Power System", New Mexico State University, Las Cruces, NM, March 21st, 2014.

[ITP162]. *A. K. Srivastava*, "Smart Grid and Renewable Integration", ICUE preconference workshop, Pattaya, Thailand, March 18th, 2014.

[ITP163]. *A. K. Srivastava*, "Smart Grid Technology and Synchrophasor Applications", Asian Institute of Technology, Bangkok, Thailand, March 17th, 2014.

[ITP164]. *A. K. Srivastava* "Educational Program on Synchrophasor Applications", Washington State University", Power System Conference, Clemson, SC, March 13th, 2014 (panel).

[ITP165]. *A. K. Srivastava*, "Robust Control and Energy Management Algorithms for Microgrid", Power System Conference, Clemson, SC, March 13th, 2014 (panel).
[ITP166]. *A. K. Srivastava*, "Testing PMUs using the PMU Performance Analyzer (PPA)", North American Synchrophasor Initiative (NASPI) meeting, Knoxville, TN, March 12th, 2014.
[ITP167]. *A. K. Srivastava*, "Online Wide-Area Voltage Stability Monitoring and Control: RT-VSMAC", North American Synchrophasor Initiative (NASPI) meeting, Knoxville, TN, March 12th, 2014.
[ITP168]. *A. K. Srivastava*, "Smart Grid and Smart City Pullman", Washington Utilities and Transportation Commission, January 2014 (Tutorial)
[ITP169]. *A. K. Srivastava*, "Research Activities Related to Microgrid and Distribution System", Brown bag seminar, National Renewable Energy Lab (NREL), October 21st, 2013.
[ITP170]. *A. K. Srivastava*, "Smart Grid technology", IEEE Toronto Section Seminar Series, Toronto, Canada, October 10th, 2013.
[ITP171]. *A. K. Srivastava*, "Security Analysis with Incomplete Information and Cyber-Physical Simulation for Power Grid", University of Toronto, Toronto, Canada, October 11th, 2013.
[ITP172]. *A. K. Srivastava*, "The WSU Microgrid", Santiago, Chile, September 2013 (Panel).
[ITP173]. A. K Srivastava, "Control Algorithms for Active Distribution Systems", IIT Delhi, India, July 8th, 2013.
[ITP174]. *A. K. Srivastava*, "Energy Management and Control for Active Distribution Systems", IIT Kanpur, July 16th, 2013.
[ITP175]. *A. K. Srivastava*, "RT-VSMAP: A 'Non-recursive' Algorithm for Real Time Voltage Stability Analysis", Symposium on Electric Power Control Center, Bedford Springs, PA, June 2013.
[ITP176]. *A. K. Srivastava*, "Power System Fundamentals", TCIPG Summer School, Chicago, IL, June 2013 (Tutorial).
[ITP177]. *A. K. Srivastava*, "Cyber-Physical Simulation and Security Analysis with Incomplete Information", University of West Virginia and IEEE Pittsburgh Section Seminar Series, Morgantown, WV, June 5, 2013.
[ITP178]. *A. K. Srivastava*, "RT-VSMAP: A 'Non-recursive' Algorithm for Real Time Voltage Stability Analysis", JSIS meeting, Salt Lake City, UT, June 2013.
[ITP179]. *A. K. Srivastava*, "Synchrophasor based Voltage Stability and Real Time Implementation", Argonne National Lab, Chicago, IL, May 28th 2013.
[ITP180]. *A. K. Srivastava*, "Phasor Measurement (Estimation) Units", Relay School, Pullman, WA, March 2013 (Tutorial).
[ITP181]. *A. K. Srivastava*, "Education in workforce development", PSERC Public Webinar in collaboration with 5 other faculty members, March 2013.
[ITP182]. *A. K. Srivastava*, "Northwest Smart Grid Demonstration and Implementation Projects", NSF Workshop on US-China Collaboration for Smart Grid, Arlington, VA, February 28th, 2013 (panel).
[ITP183]. *A. K. Srivastava*, "Testing of Power Engineering Algorithms and Devices for Smart Grid", Power and Energy Conference, Sanya, China, January 1st, 2013.
[ITP184]. *A. K. Srivastava*, "Operation and Control of Active Distribution Systems", Tsinghua University, Beijing, China, January 3rd, 2013.
[ITP185]. *A. K. Srivastava*, "Applications of Synchrophasors and Microgrid Control", Zhejiang University, Hangzhou, China, December 2012.
[ITP186]. *A. K. Srivastava*, "Smart Grid Status in Washington", Smart Grid Forum, Seattle, WA, November 13th, 2012 (Invited Panel).
[ITP187]. *A. K. Srivastava*, "Technical and Economical Impact of Energy Storage Devices on Electric Grid", Great Lakes Smart Grid Symposium, Chicago, IL, September 2012 (Invited Panel).
[ITP188]. A. K. Srivastava, "Synchrophasor Applications and Microgrid Control" Montana State University, Bozeman, MT, July 2012.
[ITP189]. *A. K. Srivastava*, "Testing and Validation of Power Engineering Algorithms and Devices for Smarter Electric Grid", Northwest Public Power Association (NWPPA) Conference, Spokane, WA, April 2012.
[ITP190]. *A. K. Srivastava* and S. S. Biswas, "Overview of Synchrophasor Test Bed @ SGDRIL, WSU", Workshop on Testing and Validation of Synchrophasor Devices and Algorithms, WSU, Pullman, WA, March 2012.

[ITP191]. *A. K. Srivastava*, "Modeling and Simulation for the Smart Grid", Arizona State University, Phoenix, AZ, September 10th, 2011.
[ITP192]. *A. K. Srivastava*, "2nd year faculty panel", New faculty Orientation, WSU, August 15th, 2011.
[ITP193]. *A. K. Srivastava*, "Real Time Modeling and Simulation for Smart Grid", Indian Institute of Technology, New Delhi, India, June 10th, 2011.
[ITP194]. *A. K. Srivastava*, "Testing and Validation of Smart Grid Algorithms and Devices", Indian Institute of Technology, Kanpur, India, May 30th, 2011.
[ITP195]. *A. K. Srivastava*, "Smart Grid Modeling and Simulation", Royal Institute of Technology, KTH, Stockholm, Sweden, May 18th, 2011.
[ITP196]. *A. K. Srivastava*, "Validation of Smart Grid Algorithms and Devices Using Real Time Simulation", University of Idaho, Moscow, ID, February 24th, 2011.
[ITP197]. *A. K. Srivastava*, "Real-time Modeling and Simulation for Future Power Grid", University of Idaho, IEEE Palouse Section Meeting, November 18th, 2010.
[ITP198]. *A. K. Srivastava*, "Power up your Future", Imagine U, Middle School and High School, November 23rd, 2010.
[ITP199]. *A. K. Srivastava*, "Technical and Environmental Impact of Integrating Distributed Generation with Electric Grid and Microgrid", University of Washington, Seattle, WA, October 14th, 2010.
[ITP200]. *A. K. Srivastava*, "Smart Power Grid: Research Opportunities and Making it Reality", Vanderbilt University, Nashville, TN, November 13th, 2009.
[ITP201]. *A. K. Srivastava*, "Modeling and Simulation of Next Generation Smarter Electric Grid", Tennessee Tech University, Cookeville, TN, November 13th, 2009.
[ITP202]. A. K. Srivastava, "Engineering the Future Power Grid with Increased Security Measures", Indian Institute of Science, Bangalore, India, May 15th, 2009.
[ITP203]. *A. K. Srivastava*, "Application of Real Time Modeling and Simulation in Power System Research", Central power research institute (CPRI), Bangalore, India, May 15th, 2009.
[ITP204]. S. K. Srivastava, *A. K. Srivastava*, A. Minerick, and N. N. Schulz, "International students' challenges in U.S. graduate schools", MAIE Annual Conference, Mississippi State University, MS, Feb 2009.
[ITP205]. S. Kamireddy, V. Mohan, *A. K. Srivastava*, and N. N. Schulz, "Improved State Estimation and Development of Real Time Wide Area Monitoring and Control Test Bed", North American Synchro-phasor Initiative, Charlotte, NC, October 16-17, 2008.
[ITP206]. *A. K. Srivastava*, "Self-Describing and Controllable Power Grid", PMU application user group meeting, Entergy, New Orleans, LA, September 19th, 2007.
[ITP207]. *A. K. Srivastava*, "Power System Research Activities at Mississippi State University", ECE Distinguished Speaker Seminar Series, Concordia University, Montreal, Canada, 31st August 2007.
[ITP208]. *A. K. Srivastava*, "Voltage Collapse Contingency Screening", IEEE invited lecture seminar series, Electrical Engineering department, IIT, Kanpur, India, 5th July 2006.
[ITP209]. *A. K. Srivastava*, "Voltage Collapse Contingency Screening and Power Grid Vulnerabilities", ECE Distinguished Speaker Seminar Series, Department of ECE, Illinois Institute of Technology, Chicago, IL, 15th April 2005.

X. Awards/ Honors/ Scholarships

- EECS Research Excellence Award in the School of Electrical Engineering and Computer Science, Washington State University, 2020
- Student paper award, runner-up, Resilience Week, September 2020
- IEEE PES Service Recognition Award as a Chair of Award Subcommittee, IEEE PES, 2019
- WSU research office for continued relationship with Industry recognition, 2019
- Fellow, Frontiers of Engineering Education, National Academy of Engineering (NAE), Santa Ana, CA, September 2012
- Student won 1st award in Poster Contest, PSERC, December 2018
- Student won 2nd award in Undergraduate category Poster Contest, PESGM, 2017
- Student won the second prize in oral presentation graduate category, Wiley WSU Academic Showcase, Pullman, WA, 2015
- Student won 1st and 2nd award in Graduate category Poster Contest, IEEE T&D, Chicago, IL, 2014

- Student won 1st award in Undergraduate category Poster Contest, IEEE T&D, Chicago, IL, 2014
- Student won 2nd award in Poster Contest, IEEE PESGM, Vancouver, BC, 2013
- Student won 2nd award in Poster Contest, IEEE PES T&D, Orlando, FL, 2012
- Student won 2nd award in Poster Contest, IEEE PES PSCE, Phoenix, AZ, 2011
- Best paper prize award, "An Effort to Optimize Similar Days Parameters for ANN Based Electricity Price Forecasting", Energy Systems Committee, IEEE Industry Application Society, 2009
- Technical Committee working group recognition award, working group on multi-agent systems, IEEE PES Power system analysis, computing and economics committee, 2008
- Young engineer award, Young Engineer Poster Competition (YPC), IEEJ Annual meeting, University of the Ryukyus, Japan, 2006
- Best Teaching Assistant Award, Star of the Month, IIT, Chicago, IL, 2005
- Certificate of highest standards of academic achievement from Graduate College, IIT, Chicago, IL, 2005
- Clinton Stryker Distinguished Service Award, Nominee, IIT, Chicago, IL, 2005
- Dean's Tuition Scholarship, IIT, Chicago, IL, 2001

XI. Service Activities

XI.A. Professional Service

Technical Chair/ Co-Chair

- IEEE SmartGridComm 2021

Technical Program Committee Member

- IEEE SmartGridComm 2012, 2013, 2019 and 2020
- MSCPES, CPSWeek, 2012-2020
- Power System Computation Conference (PSCC), Poland 2014
- International Conference and Utility Exhibition on Green Energy (ICUE), Thailand, 2014
- International Conference on Modern Power and Energy System (ICMPES), India, 2013
- International Conference on Diagnostics, Czech Republic, 2013
- Power and Energy Engineering Conference, Sanya, Hainan, China, 2013
- IEEE South East Conference, Memphis, TN, USA, 2006

Editorial Board Member

- IEEE Transactions on Power Systems, 2018-Present
- IEEE Transactions on Industrial Applications, 2019-Present
- Elsevier Sustainable Computing: Informatics and Systems: SUSCOM, 2018-Present
- Past Editor, IEEE Transactions on Smart Grid, 2015-2019
- Past Editor, IET Generation, Transmission and Distribution, 2016-2019
- Past Editor, Journal of Modern Power Systems and Clean Energy, 2018-2019

Guest Editor for Special Issues

- IET GTD special issue on "Next Generation of Synchrophasor-based Power System Monitoring, Operation and Control", 2020
- IEEE TII special issue on, "Deep learning and data analytics to support the smart grid operation with renewable energy", 2020
- IET Generation, Transmission and Distribution, "Emerging Trends in System Integrity Protection Schemes (SIPS) for Improving the Performance of Smart Grid", 2019
- IEEE Transaction on Industry Applications, "Security, Reliability, Privacy, and Quality in Industrial Automation and Control", 2019
- IET Smart Grid, "Machine Learning in Power Systems", 2019
- IET Smart Grid, "Definition, Quantification, Analysis and Enhancement of Grid Resilience", 2019
- IEEE Transactions on Industrial Informatics, "Cloud Computing in Smart Grid Operation and Management", 2018

- IET Smart Grid, “Cyber Physical Systems for Power Distribution Systems”, 2018

Reviewer

Journal and Conferences:

- IEEE Transactions on Power System
- IEEE Transactions on Smart Grid
- IEEE Transactions on Power Delivery
- IEEE Transactions on Sustainable Energy
- IEEE Transactions on Energy Conversion
- IEEE Transactions on Industrial Electronics
- IEEE Transactions on Education
- IEEE Power Engineering Society Letters
- IEE Proc. on Generation, Transmission & Distribution
- European Transactions on Electric Power
- International Journal of Engineering Education

Research Proposal Reviewer:

- National Science Foundation, USA
- Department of Energy, USA
- Science Foundation, Croatia
- National Science and Engineering Research Council, Canada
- Canada Foundation for Innovation, Canada
- National Research Fund, Qatar
- Bonneville Power Administration, USA
- The Implementation Group, Inc, USA
- King Fahd University of Petroleum and Minerals, Saudi Arabia
- Oak Ridge Associated Universities, USA and Kazakhstan

External P&T Reviewer:

- University of Vermont
- Indian Institute of Technology, Chennai, India
- University of Connecticut
- Oregon State University
- Texas Tech University

Session Chair and Other Professional Service:

- IEEE PES Graduate Scholarship Review Committee, 2020
- Industry Liaison, SmartGridCom, 2020
- Advisor, ERIGrid2: European Research Infrastructure supporting Smart Grid, 2020-
- Post-COVID lab reopening preparation committee, EECS, VCEA, 2020
- Session Co-Chair, “Utilizing distribution system assets and DER for transmission system voltage stability”, IEEE PES General Meeting, August 2020
- Session Co-Chair, “Data-Quality Aware Synchrophasor Applications”, IEEE PES General Meeting, August 2020
- Session Chair, “Power System Dynamic Performance 2”, IEEE PES General Meeting, August 2020
- Session Co-Chair, “Research and Education in Distribution Management System with DERs for Resilient Grid”, IEEE PES General Meeting, August 2020
- Session Chair, IEEE International conference on Power Electronics, Smart Grid and Renewable Energy, “Management and Control in Smart Grid”, Kerala, India, January 2020
- Session Chair, IEEE North American Power Symposium (NAPS), “DER Management”, Wichita, KS, October 2019
- Session Chair, IEEE IAS Annual Meeting, “Management and Control in the Smart Grid”, Baltimore, MD, October 2019

- Session Co-Chair, “Integrating Resiliency into Operational Practice”, IEEE PES General Meeting, Atlanta, GA 2019
- Session Co-Chair, “Microgrid Tools: Design, Optimization, Business Case and Resiliency”, IEEE PES General Meeting, Atlanta, GA 2019
- Session Co-Chair, “Challenges and solutions for Synchrophasor Data Quality in Power System Operation”, IEEE PES General Meeting, Atlanta, GA 2019
- Session Chair, IEEE T&D Latin America, Lima Peru, September 2018
- Session Chair, North American Power Symposium, Fargo, North Dakota, September 2018
- Session Chair, IEEE IAS Annual Meeting, Portland, OR, September 2018
- Session Co-Chair, “Measuring and Enabling Resiliency using Microgrid”, IEEE Power and Energy Society General Meeting, Portland, OR, August 2018
- Session Co-Chair, “Challenges and Solutions in Implementing Synchrophasor Applications at the Control Center”, IEEE Power and Energy Society General Meeting, Portland, OR August 2018
- Session Co-Chair, “Computational Infrastructure for Distributed Control in the Power Grid”, IEEE Power and Energy Society General Meeting, Portland, OR August 2018
- Session Co-Chair, “Cyber Physical Power System Simulation: Technology and Practice”, IEEE Power and Energy Society General Meeting, Portland, OR August 2018
- Review Committee Member, WSU Academic Showcase, 2018
- Session Co-Chair, “Security Analysis and Control of Cyber-Physical Systems (CPS)”, IEEE Power and Energy Society General Meeting, Chicago, IL, July 2017
- Session Co-Chair, “Lessons Learned from Implementing Portable and Reconfigurable Microgrids for Resilient Operation” IEEE Power and Energy Society General Meeting, Chicago, IL, July 2017.
- Session Co-Chair, “Measuring and Enabling Resiliency using Microgrid”, IEEE Power and Energy Society General Meeting, Boston, MA, July 2016
- Session Chair, “Integrating Synchrophasor Research into Education”, IEEE Power and Energy Society General Meeting, Boston, MA, July 2016
- Session Chair, International Conference on Advances in Energy Research (ICAER), Mumbai, India, December 2015
- Session Co-Chair, “Power System Control I”, IEEE Industrial Application Society, Addison, TX, October 2015
- Session Co-Chair, “Power System Stability II”, North American Power Symposium, Charlotte, NC, October 2015
- Session Co-Chair, “Cyber-Physical Educational Modules**”,** IEEE Power and Energy Society General Meeting, Denver, CO, July 2015
- Session Co-Chair, “Microgrid as a Resource for Resiliency”, IEEE Power and Energy Society General Meeting, Denver, CO, July 2015
- Session Co-Chair, “Lessons-Learned from Microgrid Implementation**”,** IEEE Power and Energy Society General Meeting, Denver, CO, July 2015
- Session Co-Chair, “Microgrid Operation in Contingencies and Recovery”, IEEE Power and Energy Society General Meeting, Washington DC, July 2014
- Session Chair, “Intelligent Controls for Microgrids”, Power System Conference, Clemson, SC, March 2014
- Session Chair, ‘Microgrid’, North American Power Symposium, Manhattan, KS, September 2013
- Session Chair, ‘Hands-on Activities for Pre-Engineering Outreach’, IEEE PES General Meeting, Vancouver, BC, July 2013
- Session Chair, ‘Synchrophasors and Smart Meters’, North American Power Symposium, Urbana, IL, September, 2012
- Session Co-Chair, ‘Military Microgrid’, IEEE PES General Meeting, San Diego, CA, July 2012
- Member, IEEE PES Scholarship review committee, 2011-2016
- Session Chair, ‘Protection II’, North American Power Symposium, Boston, MN, August 5-6, 2011
- Session Chair, ‘Educational Research Methods Potpourri II’, American Society of Engineering Education Annual Conference, Vancouver, BC, Canada, June 26-29, 2011

- Session Chair, 'Resources for K-12 Outreach', IEEE PES General Meeting, Detroit, MI, July 24-28, 2011
- Session Chair, 'Power Electronics in Power System II', North American Power Symposium, Arlington, TX, September 26-28, 2010
- Member, DG integration Committee, ASME, 2010-11
- Member, PDC-PMU communication committee, NASPI, 2010-11
- Student Paper/ presentation Judge, North American Power Symposium, Arlington, TX, September 26-28, 2010
- Session Chair, 'Dynamic Performance of HVDC and FACTS', IEEE Power and Energy Society General Meeting, Minneapolis, MN, July 25-29, 2010
- Student Poster Judge, IEEE Power and Energy Society General Meeting, Minneapolis, MN, July 25-29, 2010
- Session Chair, 'Modeling student data', American Society of Engineering Education, Louisville, KY, June 20-23, 2010
- Student Poster Judge, IEEE Transmission and Distribution Conference and Exposition, T&D, April 2010
- Student Program Chair and member of Organizing Committee, North American Power Symposium, NAPS, Mississippi State, MS, October 2009
- Judge, Conrad Spirit of Innovations Award, 2009
- Session Chair, 'System Identification and Model Predictive Control', IEEE Power Engineering Society General Meeting, Calgary, July 26-30, 2009
- Judge, Mississippi Science Fair, Mississippi State University, March 26th, 2009
- Judge, Student Poster Contest, IEEE PES General Meeting, Calgary, Canada July 26-30, 2009
- Session Co-Chair, 'Power System Dynamic Performance I', Power System Conference and Exposition (PSCE), Seattle, WA, March 15-18, 2009
- Session Chair, 'Power System Dynamic Performance II', Power System Conference and Exposition (PSCE), Seattle, WA, March 15-18, 2009
- Session Chair, 'Voltage Stability and Contingency Analysis', North American Power Symposium (NAPS), Calgary, Canada, September 28 – 30, 2008
- Judge, Student paper competition, North American Power Symposium (NAPS), Calgary, Canada, September 28 – 30, 2008
- Secretary, NAPS steering committee, 2008
- Chair, Student support program, IEEE PES T&D conference, April 20-24, 2008, Chicago, IL
- Session Chair, 'Control of Power System Components', NAPS, Las Cruces, NM, September 30 – October 2, 2007
- Judge, Student paper competition, NAPS, Las Cruces, NM, Sep. 30 - Oct. 2, 2007
- Judge, Student poster competition, PES, Tampa, FL, June 24-28, 2007
- Judge, Student presentation, ESCAPE, MSU, Mississippi State, MS, March 2-3, 2007
- Judge, Student paper competition, PSCE, Atlanta, Georgia, Oct. 29-Nov. 1 2006
- Session Chair, 'Distributed Generation and Renewable Energy I', NAPS, Carbondale, IL, Sep. 17-19, 2006
- Judge, Student paper competition, NAPS Carbondale, IL, Sep. 17-19, 2006
- Judge, Student poster competition, IEEE PES General Meeting, Montreal, Canada, June 2006
- Judge, Student poster competition, IEEE Transmission & Distribution Conference, Dallas, TX, May 2006
- Judge, Student poster competition, ISAP, Washington DC, November 2005
- Judge, Mississippi Region V Elementary and Secondary Science and Engineering Fair, Mississippi State, MSU February 28 - March 1, 2007
- Judge, Mississippi Region V Elementary and Secondary Science and Engineering Fair, MSU, March 2006
- Judge, Ethics competition, SECON, Memphis, TN, April 2006
- Chaired electrical engineering, computer and embedded system engineering and general engineering track at IEEE South East Conference, Memphis, TN March 30-April 2, 2006
- Judge, Mississippi State Science and Engineering Fair, MSU, April 2006

XI.B. Conference/ Workshop/ Tutorial Organization

- Workshop Co-Chair, "Measuring and Enabling Power Grid Resilience: Challenges and Solutions", ResilienceWeek, October, 2021: https://resilientpowergrid.ai/resilienceworkshop
- Steering committee member, NSF/ PSERC Executive Forum on Grid at the "Edge": Interfacing Legacy Grids operated by Utilities with Emerging Grid Components Owned and Operated by Third Parties, 2020-2021
- Workshop Co-Chair, WS-2: Machine Learning and Big Data Analytics in Power Transmission Systems, IEEE SmartGridComm, AZ, 2020
- Organizing Committee Member, NSF Sponsored, "Forging Connections between Machine Learning, Data Science, & Power Systems Research, NSF, Alexandria, VA, March 2020.
- Workshop on Modeling and Simulation of Cyber-Physical Energy System, CPSWeek, Sydney, Australia, April 2020
- Symposium Co-Chair, Communications and Networking, IEEE SmartGridComm, China, 2019
- Workshop on Modeling and Simulation of Cyber-Physical Energy System, CPSWeek, Montreal, Canada, April 2019
- NSF sponsored "Data analytics workshop for the power grid resiliency", Portland, OR, 2018
- Workshop on Modeling and Simulation of Cyber-Physical Energy System, CPSWeek, Portugal, March 2018
- Data Analytics Workshop in Smart Grid, Sponsored by Siemens, Pullman, WA, August 2017
- Workshop on Modeling and Simulation of Cyber-Physical Energy System, CPSWeek, Pittsburgh, PA, March 21, 2017
- IEEE Workshop on Synchrophasors Applications, Singapore, Philippines and India, July 2017
- North American Power Symposium, technically sponsored by IEEE, Washington State University, September 2014 (attendees: 229)
- Tutorial on Phasor Measurement Unit, WSU Relay School, March, 2013 and 2014
- Workshop on Testing and Validation of synchrophasor devices and applications, Pullman, WSU, March 2012 (around 80 attendees)

XI.C. Professional Affiliations

- IEEE (Student Member, 2000-2005, Member, 2005-2009, Senior Member, 2009-present)
  - IEEE Power Engineering Society (2002-Present)
    - Bulk Power System Operation Subcommittee (BPSO), PSOPE (Vice-Chair, 2020-Present, Secretary: 2018-2019)
      - IEEE Task Force on Synchrophasor Applications in Control Center (Chair: 2017-Present)
      - Operational Tools for Enabling Resiliency, PSOPE, (Vice-Chair: 2017-Present)
    - Power and Energy Education Committee (PEEC) (Chair: 2020-Present, Vice-Chair: 2018-2019, Secretary: 2016-2017)
      - Student Meetings Subcommittee (Member: 2007-Present, Secretary: 2009, Vice-Chair: 2011, Chair: 2013, Past-Chair: 2015)
      - Power Engineering Career Promotion Subcommittee (Member: 2007-Present, Vice Chair: 2009, Chair: 2011, Past-Chair: 2013)
      - Awards Committee (Secretary: 2014 – 2015, Vice-Chair: 2016, Chair: 2017-Present)
    - Power System Dynamic Performance (PSDP)
      - IEEE Voltage Stability Working Group (Secretary: 2015-2016, Vice-Chair: 2017-2018, Chair: 2019-Present)
    - Energy Development & Power Generation Committee (2009-Present)
      - Energy Development Subcommittee (2009-Present)
        - Distributed Generation and Energy Storage Subcommittee (Member: 2009-Present, Webmaster: 2010, Awards Liaison: 2011-Present)
          - Microgrid Implementation Working Group (Co-Chair: 2012-Present)
    - Analytic Methods for Power Systems (AMPS) Committee, CAMS
      - Computational Challenges and Solutions for Implementing Distributed Optimization in the Power Systems (Co-Chair: 2019-Present)

- IEEE Industrial Application Society (2012-Present)
- IEEE Industrial Electronics Society (2014-Present)
- ASEE (2005-2012)
- Sigma Xi Honor Society (2004-2011)
- Eta Kappa Nu Honor Society (2004-2011)
- IEEE ICAP Synchrophasor Conformance Subcommittee (Past Vice-Chair, 2013)
- North American Synchrophasor Initiative (NASPI) (2006-Present)
  - Phasor benefits and metrics working group
  - PMU for control Application (Chair: 2018-Present)
- Joint Synchronized Information Subcommittee, Western Electricity Coordinating Council (2012-Present)
- Synchronized Measurement System, NERC, (2019-Present)
- CIGRE: Conseil International des Grands Réseaux Electriques
  - Member, C2.25, Operational Resilience
  - Member, C4C2.58, Voltage Stability Assessment in Transmission System
  - Member, C4.47, Power System Resilience
  - Member, D2.52, Artificial Intelligence Application and Technology in Power Industry
  - Member, C2.18, Wide area monitoring and Control

XII. In Media

2021

- Srivastava named Chair of the Lane Department of Computer Science and Electrical Engineering
- Dr. Srivastava to Give IEEE PES Day Webinar in Columbus, Ohio
- Dr. Srivastava to give webinar for IEEE Task Force on Cyber-Physical Interdependence for Power System Operation and Control
- WSU researchers receive the 2021 Commercialization Gap Fund
- Dr. Srivastava promoted to Full professor
- Dr. Srivastava to give a keynote at the IEEE International conference on Sustainable Energy

2020

- Grid resilience in the face of a pandemic
- Dr. Srivastava to serve in user selection panel, ERIGrid2.0
- AI startup for electric grid resilience
- Dr. Srivastava to have a joint Appointment as a research scientist with the PNNL AGI Institute
- Dr. Srivastava to deliver IEEE Distinguish lecture at the National University of Singapore

2019

- Dr. Srivastava to give IEEE Distinguish Lecture at Miami, FL
- Dr. Srivastava to give keynote at CEEPE/ ICSGSC, Berkley, CA
- Energy resilience research from Dr. Srivastava featured by EnergyCentral
- Dr. Srivastava to give IEEE Big data tutorial
- Dr. Srivastava interviewed by Associated Press for Venezuela's Blackout
- Dr. Srivastava interviewed by The Seattle Times for Venezuela's Blackout
- Dr. Srivastava interviewed by SF Gate for Venezuela's Blackout
- Prof. Srivastava to give IEEE Distinguish Lecture at University of Hawaii

2018

- IEEE Smart grid interviews Prof. Srivastava

- Prof. Srivastava organized data analytics for the power grid workshop supported by NSF
- WSU professor works to improve smart power grids
- Faster, Smarter Decisions in Power Grid Extreme Events Aim of Research

2017

- WSU part of the grid distributed simulation team in two continents
- Dr. Srivastava to co-lead $30M international partnership to advance power grid
- Dr. Srivastava will co-lead a new $2.3M grant to improve U.S. power grid design
- Dr. Srivastava part of the International Energy Project
- Dr. Srivastava is part of the team to develop distributed and resilient control for the power grid
- WSU to lead international research to advance the DER integration
- WSU part of the Global RT-SuperLab for electric grid simulation
- Jacob Greig-Prine working with Dr. Srivastava wins award at the international conference

2016

- Dr. Srivastava was invited for IEEE PES webinar on synchrophasor applications
- Out the Hack door

2015

- Dr. Srivastava to participate in a new DOE ARPA-E project
- WSU to participate in National Cybersecurity Project
- SGDRIL featured in Washington State Magazine
- Dr. Srivastava is part of the $28.1M DOE grant to help with Cyber Security in Energy Delivery System

2014

- Creating a smart city by focusing on grid efficiencies
- WSU hosts major power industry event
- Sept. 7-9: Power symposium highlights stability, security
- Students take top prizes at world power, energy conference

2013

- Driven by energy, fueled by philanthropy
- WSU students earn the most IEEE power scholarships
- The Next Phase for Distributed Energy
- Graduate student receives top poster award

2012

- K-12 Outreach and Educational Initiatives Within the Power Industry
- WSU Student Receives Second Place in Annual Power Engineering Conference
- Anurag Srivastava Selected to Participate in Leading Engineering Education Symposium
- Conference the first to look at synchrophasor testing for smart grid
- IEEE Conformity Assessment Program (ICAP) and Washington State University Laboratory Host First Synchrophasor Conference Focusing on Testing for the Smart Grid
- First-Ever Conference Looks at Synchrophasor Testing for Smart Grid

2011

- IEEE Conformity Assessment Program (ICAP) and Washington State University Laboratory Sign Memorandum of Understanding to Develop Conformance Framework for Syncrophasors
- WSU to become a smart grid testing lab
- Smart Grid Lab Gets Underway