ANAMIKA DUBEY

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PROFESSIONAL PROFILE

Research

- Published 48 peer-reviewed research articles.
- Serving as PI/Co-PI for research grants more than 3 Million (WSU share) over 3 years supported by Power System Engineering Research Center (PSERC), Pacific Northwest National Laboratory (PNNL), Department of Energy (DOE), and Alfred P. Sloan Foundation. (1.3 million as PI).
- Supervised graduate thesis for 2 M.S. students and currently advising 6 graduate students (6 Ph.D. students).
- Mentoring undergraduate students on different research projects including underrepresented minority students from WSU's Pacific Northwest Louis Stokes Alliances for Minority Participation (PNW LSAMP) program.

Teaching

- Developed 3 new courses (2 graduate level + 1 undergraduate level) and updated 1 undergraduate level course on electric power distribution systems.
- Maintained consistently good 'student evaluations for teaching as an instructor' for senior-level and graduate-level courses.

Service

- Chair, IEEE Palouse Section PES Chapter Chair starting Jan. 2019.
- Conference Organization Committee Member, 2018 IEEE International Conference on Probabilistic Methods Applied to Power Systems (PMAPS).
- Chair, paper forum sessions at IEEE PES GM 2018 and IEEE PES GM 2017.
- Member, IEEE PES AMPS Distribution System Analysis Subcommittee.
- Member, IEEE PES Reliability, Risk and Probability Applications Subcommittee.

RESEARCH AND TEACHING INTERESTS

Power distribution system – analysis, control, management, and planning

- Control and design measures to facilitate the integration of distributed energy resources (DERs)
- Quantifying and enhancing distribution grid resilience
- Advanced distribution management system (ADMS)
- Transactive energy markets for power distribution systems
- Computing tools for power system analysis

EDUCATION QUALIFICATIONS

The University of Texas at Austin

Austin, TX

Ph.D. in Electrical and Computer Engineering

Aug. 2012 to Dec 2015

Dissertation:

Distributed Resource Integration Analysis and Network Design of Electric Power Distribution Systems

Advisor: Dr. Surya Santoso Cumulative GPA - 3.86/4.00

The University of Texas at Austin

Austin, TX

MSE in Electrical and Computer Engineering

Aug. 2010 to May 2012

Thesis: Impacts of Electric Vehicle Loads on Utility Distribution Network Voltages

Advisor – Dr. Surva Santoso Cumulative GPA - 3.75/4.00

Indian Institute of Technology (IIT) Roorkee

Roorkee, India

Bachelor of Technology in Electrical Engineering

July 2006 to May 2010

Senior Project: Designing Expert Feeder System for Distribution System Phase Balancing

Advisor – Dr. Jaydev Sharma Cumulative GPA - 8.81/10.00

WORK EXPERIENCE

Assistant Professor

Washington State University, Pullman, WA School of Electrical Engineering and Computer Science Jan. 2016 - Present

Research Assistant

Austin, TX The University of Texas at Austin,

Dec. 2011 - Dec. 2015 Department of Electrical Engineering and Computer Science

Teaching Assistant

Austin, TX The University of Texas at Austin,

Aug. 2010 – Dec. 2011 Department of Electrical Engineering and Computer Science

Summer Internship

Boston, MA Mitsubishi Electric Research Laboratories May 2013 - August 2013

(MERL)

Summer Internship

Boston, MA Mitsubishi Electric Research Laboratories

(MERL)

Summer Internship

Dehradun, INDIA Defense Research Development Organization

(DRDO)

June 2009 - August 2009

May 2011 - August 2011

TEACHING EXPERIENCE

A. Teaching Summary (Courses Taught at WSU)

Course Number	Course Name	Semester	Students	Evaluation
EE 483.01	Electric Power Distribution Systems Spring 2019		32	NA
EE 221	Numerical Computing for Engineers Fall 2018		89	3.5
EE 582.01 New Course	Power Quality Analysis	Spring 2018	9	4.6
EE 582.02 New Course	Reliability Assessment of Complex Systems	Fall 2017	4	4.8
EE 483.01	Electric Power Distribution Systems	Fall 2017	15	4.5
EE 483.03 New Course	Reliability Assessment of Complex Systems	Fall 2016	4	5.0
EE 582.01 New Course	Power Quality Analysis	Spring 2016	4	4.7

B. List of Courses Taught at WSU

Instructor

Washington State University

Fall 2018

EE 221 Numerical Computing for Engineers

- Undergraduate level course
- Course objective is to provide students with the ability to competently use MATLAB programming environment, understand mathematical concepts upon which numerical methods rely, and program typical numerical methods in MATLAB programming environment.
- Contact Hours Two 50-min lectures per week, Enrollment 89, 2018 course evaluation 56% responded; overall instructor rating 3.5 (average EECS 4.2, VCEA 4.2).

Instructor

Washington State University

EE 483.01 Electric Power Distribution Systems

Fall 2017, Spring 2019

- Undergraduate level course
- Course objective is to provide each student with the ability to analyze, design, and operate electric power distribution systems. The instructor modified and extended upon the existing course material. The theory was supplemented by modern software tools for system planning and operation. A field visit to Avista's substation was included as a part of the course curriculum.
- Contact Hours Two 1.5-hour lecture per week, Enrollment 15, 2017 course evaluation 92.3% responded; overall instructor rating 4.5 (average EECS 4.2, VCEA 4.2).

Instructor

Washington State University

EE 582.02 Reliability Assessment of Complex Systems

Fall 2017

- New Course Graduate level course
- Course objective is to provide the students with a fundamental background on methods for quantitative
 reliability calculation specifically, when applied to the electric power grid. Fundamentals on bulk power
 system reliability including adequacy assessment, multiarea reliability, and composite system reliability
 along with distribution system reliability were discussed.
- Contact Hours Two 1.5-hour lecture per week, Enrollment 4, 2017 course evaluation 100% responded; overall instructor rating 4.8 (average EECS 4.2, VCEA 4.2).

Instructor

Washington State University

EE 483.03 Reliability Assessment of Complex Systems

Fall 2016

- New Course Undergraduate level course
- Addressed the fundamentals of reliability evaluation methods for complex systems and its application to electric power distribution systems. This course provided students with the mathematical tools to model and conduct reliability evaluation of complex topological systems.
- Contact Hours Three 1-hour lecture per week, Enrollment 4, 2016 course evaluation 100% responded; overall instructor rating 5.0 (average EECS 4.2, VCEA 4.3)

Instructor

Washington State University

Spring 2016, Spring 2018

EE 582.01 Power Quality Analysis

- New Course Graduate level course
- Presented the fundamentals of electric power quality and methods to analyze and mitigate the commonlyoccurring power quality phenomenon in electric distribution systems. The course entails analytical
 approach to model, operate, and analyze distribution circuits in the presence of power quality problems
 and present design principles for their mitigation. A brief introduction of the power quality impacts of
 integrating DERs on power distribution system is also detailed.
- Contact Hours Two 1.5-hour lecture per week, Enrollment 9 (2018), 4 (2016); 2018 course evaluation 78% responded; overall instructor rating 4.6 (average EECS 4.3, VCEA 4.3); 2016 course evaluation 100% responded; overall instructor rating 4.7 (average EECS 4.3, VCEA 4.2).

C. Other Teaching Experience

Teaching Assistant

EE 302 - Introduction to Electrical Engineering,

The University of Texas at Austin

Fall 2011, Spring 2011

- Head TA: Led a group of 4 TAs coordinating 6 lab sessions
- Responsibilities included: design the lecture and experiment setup, delivering lectures for lab classes, assisting with the experiments, and preparing and grading lab exams and reports.

Teaching Assistant

EE 411 – Circuit Theory

The University of Texas at Austin

Fall 2010

 Responsibilities included holding problem sessions and discussion classes, setting weekly quizzes, and grading homework and exams.

STUDENT ADVISING

A. Current Graduate Students

PhD Students

- 1. Rahul Jha, Ph.D. starting date Fall 2016
- 2. Shiva Poudel, Ph.D. starting date Fall 2016
- 3. Mohammad Ostadijafari, Ph.D. starting date Spring 2018
- 4. Gayathri Krishnamoorthy, Ph.D. starting date Fall 2018
- 5. Rabayet Sadnan, Ph.D. starting date Fall 2018
- 6. Surendra Bajagain, Ph.D. starting date Spring 2019

B. Students Graduated at WSU

- 1. Gayathri Krishnamoorthy, "An Iterative Co-simulation Framework for the Integrated Transmission and Distribution System Analysis," M.S., May 2018 (continuing as Ph.D. student).
- 2. Anandini Bharadwaj, "Operational Topology Estimation of Three Phase Unbalanced Power Distribution Systems with Outages," M.S., May 2019.

C. Graduate Committee Member at WSU

- 1. Arun Imayakumar, EE, M.S.
- 2. Venkatesh Venkataramanan, EECS, Ph.D.
- 3. Kefei Mo, EECS, Ph.D.
- 4. Mohammad Ghanaatian Jobzari, EECS, Ph.D.
- 5. Hongda Ren, EECS, Ph.D.
- 6. Aslan Mojallal, EECS, Ph.D.
- 7. Kefei Mo, EE, M.S.

D. Undergraduate Research Students

- 1. Advising a group of 4 students for undergraduate research under WSU LSAMP program 2018-2019.
- 2. Advised a group of 4 students as the principle investigator (PI) for the project "Concept for Implementing Camera Technology for Diagnostic Applications on the Rotor of a Spinning Hydroelectric Generator," sponsored by WSU Power Engineering Partnership (PEP) Seed Grant 2017-2018.

E. Undergraduate Senior Design Projects at WSU

- 1. Volunteer Faculty Mentor, Senior Design Project, "Team Moquette Photovoltaic Array on a Distribution Feeder," sponsored by ESIC, 2016-2017.
- Volunteer Faculty Mentor, Senior Design Project, "Team Gerrha Mitigating Reverse Power Flow due to Distributed Generation on Networked Secondary Distribution Systems," sponsored by Avista, 2017-2018.

AWARDS AND HONORS

- Awarded U.S. patent, "Locating Multi-Phase Faults in Ungrounded Power Distribution Systems," Patent US 20150226780 A1, 13 Aug. 2015.
- Awarded U.S. patent, "Decoupled Three-Phase Power Flow Analysis Method for Unbalanced Power Distribution Systems," Patent US 20130226482 A1, 29th Aug. 2013.

- Best paper award, NAPS 2018, Second Prize Shiva Poudel, Monish Mukherjee, and Anamika Dubey,
 "Optimal Positioning of Mobile Emergency Resources for Resilient Restoration," 2018 IEEE NAPS,
 Fargo, ND, USA
- Best paper award, NAPS 2018, Second Prize Yaswanth Nag Velaga, Gayathri Krishnamoorthy, Anamika Dubey, Aoxia Chen, P.K. Sen, "Transmission-Distribution Co-simulation: Model validation with standalone simulation," 2018 IEEE NAPS, Fargo, ND, USA
- First prize winner of the National level paper presentation contest for the paper "Pose-Invariant Face Recognition using Hybrid-Eigenfaces" Electrical Engineering Department, IIT Roorkee in March 2009.
- Secured All India 62nd Rank in National Cyber Olympiad, 2001.

RESEARCH AND FUNDING GRANTS

External Funding*

*listed in chronological order

A. Funded

- 1. Dubey, A. (Co-Investigator), Liu, C.-C. (Principal Investigator), Development of an Open-Source Advanced Distribution Management System (ADMS), Subcontract agency BATTELLE PNNL, Awarding agency Department of Energy (DOE), WSU's support \$270,000, 8/16/16 12/31/17.
- 2. Dubey, A. (Principal Investigator), Liu, C.-C. (Co-Investigator), Economical and engineering aspects of proactive demand-participation: Hierarchical versus bilateral control structure, Funding agency Department of Energy (DOE), \$360,000 (WSU's support \$210,000), 10/1/16 6/30/19.
- 3. Dubey, A. (Principal Investigator), Sen, P.K. (Co-Investigator), Framework to analyze interactions between transmission and distributions systems with high distributed energy resources (DERs) penetrations, Power Systems Engineering Research Center (PSERC), \$150,000, 07/01/17-08/31/19.
- 4. Dubey, A. (Co-Investigator), Srivastava, A. K. (Principal Investigator), Liu, C.-C. (Co-Investigator), AGGREGATE: dAta-driven modelinG preservinG contRollable dEr for outaGe mAnagemenT and rEsiliency, Funding agency Department of Energy (DOE), \$1,500,000, 10/1/17-9/30/20.
- 5. Dubey, A. (Principal Investigator), Bose, A. (Co-Investigator), Development of an Open-Source Advanced Distribution Management System (ADMS), Subcontract agency BATTELLE PNNL, Awarding agency Department of Energy (DOE), WSU's support \$262,902, 1/19/18 03/31/19.
- 6. Dubey, A. (Principal Investigator), Bose, A. (Co-Investigator), GridAPPS-D Project Support, BATTELLE PNNL, Department of Energy (DOE) (support under Advanced Grid Institute), \$250,000, 12/19/19 03/31/20.
- 7. Dubey, A. (Principal Investigator), Love, H. A. (Co-Investigator), Bilateral Contract Design and Retail Market Development for Flexible Electric Power Systems with Residential Demand-side Participation, Alfred P. Sloan Foundation, \$249,785, 1/1/19 12/31/20.
- 8. Dubey, A. (Principal Investigator), and Roy, S., Robust Distributed Control for Power Sharing in Islanded Industrial Microgrids, Schweitzer Engineering Laboratories, \$267,770, 5/15/2019-5/15/2021

B. Submitted/Pending

9. Dubey, A. (Principal Investigator), Srivastava, A. K. (Co-Investigator), Mehrizi-Sani, A. (Co-Investigator), Grid-Ready Energy Analytics Training with Data, Department of Energy, \$6,000,000 (Project Lead: EPRI, WSU support - \$195,000).

C. Denied

- 10. Dubey, A. (Principal Investigator), "CAREER: Planning and Operation for Resilience in Decentralized Power Distribution Grid," National Science Foundation (NSF), Federal, \$502,175.00.
- 11. Dubey, A. (Principal Investigator), Love, H. A. (Co-Investigator), "Bilateral Contract Design and Retail Market Development for Flexible Electric Power Systems with Residential Demand-Side Participation," National Science Foundation (NSF), Federal, \$390,160.00.
- 12. Dubey, A. (Co-Investigator), Chen, Z. (Principal Investigator), "Transactive Demand Response and its Integration to Wholesale Market Operations," Power Systems Engineering Research Center (PSERC), Non-Federal, \$220,000.00.
- 13. Dubey, A. (Co-Investigator), Roy, S. (Principal Investigator), Xue, M. (Co-Investigator), "CPS: Medium: Collaborative Research: Mission-Adaptive Threat Management for a City's Underground Infrastructure," National Science Foundation (NSF), Federal, \$699,228.00.

- Dubey, A. (Principal Investigator), Doppa, J. R. (Co-Investigator), "EAGER: Real-Time: Knowledge-Guided Structured Models for Real-Time Decision-Making in Electric Power Distribution Systems," National Science Foundation (NSF), Federal, \$283,475.00.
- 15. Dubey, A. (Co-Investigator), Pang, C. (Principal Investigator), Aravinthan, V. (Co-Investigator), "Enhancing the Value of Data in the Sense of Economics and Reliability," Power Systems Engineering Research Center (PSERC), Non-Federal, \$220,000.00.
- 16. Dubey, A. (Principal Investigator), "Resilient Planning for Electric Power Distribution Grid," Sponsored by Alfred P. Sloan Foundation, Non-Federal, \$222,865.00.
- 17. Dubey, A. (Principal Investigator), "Open-Source Dynamic Hosting Capacity Evaluation Toolbox for Three-phase Unbalanced Distribution Grids (Dist-Host)," Department of Energy (DOE), Non-Federal, \$560,000.00.
- 18. Dubey, A. (Co-Investigator), Srivastava, A. K. (Principal Investigator), Bose, A. (Co-Investigator), Wu, Y. (Co-Investigator), "Modular Dispersed Computing Service Stack for Resilient Energy Distribution," Department of Energy (DOE), Non-Federal, \$900,000.00.
- 19. Dubey, A. (Principal Investigator), Roy, S. (Co-Investigator), "Resilient Distribution Grids (ResiGrids): An Open-source Multi-timescale Planning and Operational Framework," Department of Energy (DOE), \$600,000.00.
- 20. Dubey, A. (Co-Investigator), Srivastava, A. K. (Principal Investigator), "Addressing Cyber and Physical Resilient Solutions for Grid-Connected Photovoltaic System," Department of Energy (DOE), \$500,000.00.

D. Withdrawn

21. Dubey, A. (Co-Investigator), Roy, S. (Principal Investigator), Xue, M. (Co-Investigator), "SCC: Collaborative Research: Mission-Adaptive Threat Management for a City's Underground Infrastructure," National Science Foundation, Federal, \$998,020.00.

Internal Funding (Funded)

- 1. Dubey, A. (Principal Investigator), Concept for Implementing Camera Technology for Diagnostic Applications on the Rotor of a Spinning Hydroelectric Generator, WSU Power Engineering Partnership (PEP) Seed Grant, \$10,000, 11/1/2016 05/15/2018, serving as PI.
- 2. Dubey, A. (Principal Investigator), Roy, S. (Co-Investigator), Chen, Z. (Co-Investigator), Control and Analysis of Modern Power Distribution Systems with high DER penetration: Modeling Cyber-Physical-Application System Interdependencies, WSU, Energy Systems Innovation Centre (ESIC) Seed Grant, \$10,000, 8/16/2017-8/15/2018, serving as PI.
- 3. Dubey, A. (Co-Investigator), Chen, Z. (Principal Investigator), Distribution Management with Demand Response and Market, WSU, Energy Systems Innovation Centre (ESIC) Seed Grant, \$10,000, 8/16/2017-8/15/2018, serving as Co-PI.
- 4. Dubey, A. (Principal Investigator), Love, H. A. (Co-Investigator), Investigation of Household Demand Response and Transactive Electricity Markets to Respond to Short-term Electricity Supply/Demand Imbalances, WSU, Energy Systems Innovation Centre (ESIC) Seed Grant, \$10,000, 8/16/2017-8/15/2018, serving as PI.

PUBLICATIONS AND PATENTS

Publication Summary:

Total number of Citations - 343, Number of Citations in 2018 - 97, h-index - 9.

	Published/Accepted		Under	Published/submitted	
	Since joining WSU*	Total	Review	with my students	
Book chapters	0	2	0	0	
Journal papers	11	17	4	8	
Conference papers	19	31	1	16	
Patents	0	2	0	0	

* This includes all the work which involved notable amount of my work hour efforts after I joined WSU, including work continued at WSU but initiated at previous institutions and collaborative work after joining WSU which may not involve WSU students.

A. Book Chapters

- [B1]. Anamika Dubey, Surya Santoso, "Power System Harmonics," in *Electric Power Engineering Research and Education A festschrift for Gerald T. Heydt*, E. Kyriakides, et.al., Ed. Springer-Verlag, Dec 2014.
- [B2]. Surya Santoso, Anamika Dubey, "Power Quality," in *Handbook of Electric Power Calculations*, H. W Beaty and S. Santoso, Ed. 4th edition, McGraw-Hill, 2015.

B. Refereed Journals Articles (Published/Accepted/Submitted)

- [J1]. Shiva Poudel, Anamika Dubey, and Anjan Bose, "Risk-based Probabilistic Quantification of Power Distribution System Operational Resilience," submitted to IEEE Systems Journal on April 2019.
- [J2]. Mohammad Ostadijafari, Anamika Dubey, and Nanpeng Yu, "Linearized Price-Responsive HVAC Controller for Optimal Scheduling of Smart Building Loads" submitted to IEEE Transactions on Power Systems on Feb 2019.
- [J3]. Anandini Gandluru, Shiva Poudel, and Anamika Dubey, "Joint Estimation of Operational Topology and Outages for Unbalanced Power Distribution Systems," submitted to IEEE Transactions on Power Systems on Jan 2019.
- [J4]. Gayathri Krishnamoorthy, and Anamika Dubey, "Transmission-Distribution Co-Simulation: Analytical Methods for Iterative Coupling," submitted to IEEE Systems Journal on Dec 2018.
- [J5]. P.K. Sen, Yaswanth Nag Velaga, Aoxia Chen, Gayathri Krishnamoorthy, Anamika Dubey, "Advancements in Co-Simulation Techniques in Combined T&D Systems Analysis," accepted IET The Journal of Engineering, Jan 2019.
- [J6]. Juan Carlos Bedoya, Chen-Ching Liu, Gayathri Krishnamoorthy, and Anamika Dubey, "Bilateral Electricity Market in a Distribution System Environment", accepted IEEE Transactions on Smart Grid, March 2019.
- [J7]. Rahul Ranjan Jha, Anamika Dubey, Chen-Ching Liu, Kevin, P. Schneider, "Bi-Level Volt-VAR Optimization to Coordinate Smart Inverters with Voltage Control Devices," accepted IEEE Transactions on Power Systems, January 2019.
- [J8]. Shiva Poudel and Anamika Dubey, "Critical Load Restoration using Distributed Energy Resources for Resilient Power Distribution System," accepted IEEE Transactions on Power Systems, Aug 2018.
- [J9]. Suma Jothibasu, Anamika Dubey, and Surya Santoso, "Two-Stage Distribution Circuit Design Framework for High Levels of Photovoltaic Generation" accepted IEEE Transactions on Power Systems, Sept 2018.
- [J10]. Ronald B. Melton, Kevin P. Schneider, Eric Lightner, Thomas E. McDermott, Poorva Sharma, Yingchen Zhang, Fei Ding, Subramanian Vadari, Robin Podmore, Anamika Dubey, Richard W. Wies, and Eric G. Stephan, "Leveraging Standards to Create an Open Platform for the Development of Advanced Distribution Applications," in IEEE Access, vol. 6, pp. 37361-37370, 2018.
- [J11]. Anamika Dubey, "Impacts of Voltage Control Methods on Distribution Circuit's Photovoltaic (PV) Integration Limits," Inventions 2017, Vol. 2, No. 28, pp. 1-20, Oct 2017. doi:10.3390/inventions2040028.
- [J12]. Anamika Dubey, Pisitpol Chirapongsananurak, and Surya Santoso, "A Framework for Stacked-Benefit Analysis of Distribution-Level Energy Storage Deployment," Inventions 2017, Vol. 2, No. 6, pp. 1-20, Feb 2017. doi:10.3390/inventions2020006.
- [J13]. Anamika Dubey and Surya Santoso, "On Estimation and Sensitivity Analysis of Distribution Circuit's Photovoltaic Hosting Capacity," in IEEE Transactions on Power Systems, vol. 32, no. 4, pp. 2779-2789, July 2017. doi: 10.1109/TPWRS.2016.2622286.
- [J14]. Anamika Dubey and Surya Santoso, "Availability-Based Distribution Circuit Design for Shipboard Power System," in IEEE Transactions on Smart Grid, vol. 8, no. 4, pp. 1599-1608, July 2017. doi: 10.1109/TSG.2015.2493360.
- [J15]. Anamika Dubey, and Surya Santoso, "A Two-Level Topology Design Framework for Reliable Shipboard Power Systems," Inventions 2016, Vol. 1, No. 3, pp. 1-14, June 2016. doi:10.3390/inventions1030014.

- [J16]. Anamika Dubey and Surya Santoso, "Electric Vehicle Charging on Residential Distribution Systems: Impacts and Mitigations," IEEE Access, vol.3, pp. 1871-1893, Oct. 2015, doi: 10.1109/ACCESS.2015.2476996.
- [J17]. Ben Stevens, Anamika Dubey, and Surya Santoso, "On Improving Reliability of Shipboard Power System," IEEE Trans. Power Systems, vol. 30, no. 4, pp. 1905-1912, July 2015. doi: 10.1109/TPWRS.2014.2354638.
- [J18]. Anamika Dubey, Surya Santoso, Matthew P. Cloud, and Marek Waclawiak, "Determining Time-of-Use Schedules for Electric Vehicle Loads: A Practical Perspective," IEEE Power and Energy Technology Systems Journal, vol.2, no.1, pp.12-20, March 2015. doi: 10.1109/JPETS.2015.2405069.
- [J19]. Anamika Dubey, Surya Santoso, and Matthew P. Cloud, "Average-Value Model of Electric Vehicle Chargers," IEEE Trans. Smart Grid, vol.4, no.3, pp.1549-1557, Sept. 2013, doi:10.1109/TSG.2013.2258692
- [J20]. Abhishek Sharma, Anamika Dubey, Pushkar Tripathi and Vinod Kumar, "Pose invariant virtual classifiers from single training image using novel hybrid-eigenfaces," Neurocomputing 73 (10), 1868-1880, 2010.
- [J21]. Abhishek Sharma, Anamika Dubey, A.N. Jagannatha and R.S. Anand, "Pose invariant face recognition based on hybrid-global linear regression," Neural computing & applications 19 (8), 1227-1235, 2010.

C. Refereed Conference Articles (Published/Accepted/Submitted)

- [C1]. Anandini Gandluru and Anamika Dubey "A Non-Exhaustive Search Algorithm to Identify Distribution Grid Operational Topology," submitted to 2019 IEEE NAPS.
- [C2]. Abdullah Al Maruf, Mohammad Ostadijafari, Anamika Dubey, and Sandip Roy, "Small-Signal Stability Analysis for Droop-Controlled Inverter-based Microgrids with Losses and Delays," accepted to appear at ACM e-Energy Conference'19, June 2019, Phoenix, AZ, USA.
- [C3]. Mohammad Ostadijafari, and Anamika Dubey "Linear Model-Predictive Controller (LMPC) for Building's Heating Ventilation and Air Conditioning (HVAC) System," accepted to appear at IEEE Conference on Control Technology and Applications (CCTA 2019).
- [C4]. Gayathri Krishnamoorthy, Anamika Dubey, and P.K. Sen, "Iteratively-Coupled Co-simulation Framework for Unbalanced Transmission-Distribution System," accepted to appear at IEEE PES Powertech 2019, Milano, Italy.
- [C5]. Rahul Ranjan Jha and Anamika Dubey, "Exact Distribution Optimal Power Flow (D-OPF) Model using Convex Iteration Technique," accepted to appear at 2019 IEEE PES General Meeting.
- [C6]. Mohammad Ostadijafari, Anamika Dubey, Yang Liu, Jie Shi, and Nanpeng Yu, "Smart Building Energy Management using Nonlinear Economic Model Predictive Control," accepted to appear at 2019 IEEE PES General Meeting.
- [C7]. Shiva Poudel, Anamika Dubey, and Anjan Bose, "Probabilistic Quantification of Power Distribution System Operational Resilience," accepted to appear at 2019 IEEE PES General Meeting.
- [C8]. Yaswanth "Nag" Velaga, Aoxia (Kevin) Chen, Anamika Dubey and P.K. Sen, "Trends in Rural Electric Cooperatives (Co-ops) in USA: Challenges and Opportunities," accepted to appear at 2019 IEEE Rural Electric Power Conference, Bloomington, MN.
- [C9]. Shiva Poudel, Monish Mukherjee, and Anamika Dubey, "Optimal Positioning of Mobile Emergency Resources for Resilient Restoration," 2018 IEEE NAPS, Fargo, ND, USA. (second best paper)
- [C10]. Yaswanth Nag Velaga, Gayathri Krishnamoorthy, Anamika Dubey, Aoxia Chen, P.K. Sen, "Transmission-Distribution Co-simulation: Model validation with standalone simulation," 2018 IEEE NAPS, Fargo, ND, USA. (second best paper)
- [C11]. Juan Carlos Bedoya, Chen-Ching Liu, and Anamika Dubey, "A Bilateral Transactive Energy Framework for Electric Power Distribution Systems," 2018 IEEE NAPS, Fargo, ND, USA
- [C12]. Monish Mukherjee, Shiva Poudel, Anamika Dubey, and Anjan Bose, "Distributed Generator Sizing for Joint Optimization of Resilience and Voltage Regulation," 2018 IEEE NAPS, Fargo, ND, USA
- [C13]. Zijing Zhang, Qiang Wang, Zhi Chen, and Anamika Dubey, "Optimal Strategies for Scheduling the Hourly Demand Response Considering Distributed Renewable Energy in Day-ahead Market," 2018 IEEE International Conference on Probabilistic Methods Applied to Power Systems (PMAPS), Boise Idaho.
- [C14]. Shiva Poudel, and Anamika Dubey, "A Graph-theoretic Framework for Electric Power Distribution System Service Restoration," 2018 IEEE PES General Meeting, Portland, WA.

- [C15]. Gayathri Krishnamoorthy, and Anamika Dubey, "A Framework to Analyze Interactions between Transmission and Distribution Systems," 2018 IEEE PES General Meeting, Portland, WA.
- [C16]. Anamika Dubey and Shiva Poudel, "A Robust Approach to Restoring Critical Loads in a Resilient Power Distribution System," 2017 IEEE Power & Energy Society General Meeting, Chicago, IL, USA, 2017, pp. 1-5. doi: 10.1109/PESGM.2017.8274597.
- [C17]. Pisitpol Chirapongsananurak, Anamika Dubey, Suma Jothibasu, Surya Santoso and Arindam Maitra, "Stacked Benefit Applications of Energy Storage Systems in Distribution Circuits," 2017 IEEE Power & Energy Society General Meeting, Chicago, IL, USA, 2017, pp. 1-5.
- [C18]. Suma Jothibasu, Anamika Dubey and Surya Santoso, "Determining PV Hosting Capacity Without Incurring Grid Integration Cost," Proceedings of 2016 North American Power Symposium (NAPS), Sept 18-20, 2016, Denver, CO.
- [C19]. Anamika Dubey, Harsha V. Padullaparti and Surya Santoso, "Analytical Approach to Estimate Distribution Circuit's Energy Storage Accommodation Capacity," Proceedings of the 2016 IEEE PES Conference on Innovative Smart Grid Technologies (ISGT), Sept 6-9, 2016, Minneapolis, MN.
- [C20]. Anamika Dubey and Surya Santoso, "Designing Electric Distribution Circuits for improved System Reliability," Proceedings of 2016 IEEE PES General Meeting, July 17-21, 2016, Boston MA.
- [C21]. Anamika Dubey, Surya Santoso, and Arindam Maitra, "Understanding Photovoltaic Hosting Capacity of Distribution Circuit," Proceedings of 2015 IEEE Power & Energy Society (PES) General Meeting, July 26-30, 2015, Denver, CO.
- [C22]. Anamika Dubey, Surya Santoso, and Aristotle Arapostathis, "Reliability Analysis of Three-Dimensional Shipboard Electrical Power Distribution Systems," Proceedings of 2015 IEEE Electric Ship Technologies Symposium (ESTS), June 21-25, 2015, Old Town Alexandria, Virginia.
- [C23]. Sven Bohn, Michael Agsten, Anamika Dubey, and Surya Santoso, "A Comparative Analysis of PEV Charging Impacts An International Perspective," Paper 2015-01-0300, SAE 2015 Word Congress & Exhibition, April 21-23, 2015, Detroit, MI.
- [C24]. Anamika Dubey, Hongbo Sun, Daniel Nikovski, Tomihiro Takano, Yasuhiro Kojima, and Tetsufumi Ohno, "Locating Double-line to Ground Faults using Hybrid Current Profile Approach," Proceedings of the 2015 IEEE PES Conference on Innovative Smart Grid Technologies (ISGT), Feb. 17-20, 2015, Washington, DC.
- [C25]. Anamika Dubey, Hongbo Sun, Daniel Nikovski, Jinyun Zhang, Fellow, Tomihiro Takano, Yasuhiro Kojima, Member, and Tetsufumi Ohno, "Locating of Multi-phase Faults of Ungrounded Distribution System," Proceedings of the 2014 IEEE International Conference on Power System Technology (POWERCON), Oct. 20 22, 2014, China.
- [C26]. Anamika Dubey, Surya Santoso, and Matthew P. Cloud, "Comparative analysis of effects of electric vehicle loads on distribution system voltages," Proceedings of the 2014 IEEE Power and Energy Transmission and Distribution Conference and Exposition, April 14 17, 2014, Chicago.
- [C27]. Anamika Dubey, Surya Santoso, and Matthew P. Cloud, "A practical approach to evaluate voltage quality effects of electric vehicle charging," Proceedings of the 2013 International Conference on Connected Vehicles and Exposition, Dec 02 06, 2013, Las Vegas.
- [C28]. Anamika Dubey, Surya Santoso, and Matthew P. Cloud, "Understanding the effects of electric vehicle charging on the distribution voltages," Proceedings of the 2013 IEEE Power & Energy Society General Meeting, July 21-25, 2013, Vancouver, Canada.
- [C29]. Hongbo Sun, Anamika Dubey, D Nikovski, T Ohno, T Takano, Y Kojima, "Decoupled three-phase load flow method for unbalanced distribution systems," Proceedings of the 2012 IEEE International Conference on Power System Technology (POWERCON), 2012, Auckland, New Zealand.
- [C30]. Anamika Dubey, Surya Santoso, and Matthew P. Cloud, "Average-Value Model for Plug-In Hybrid Electric Vehicle Battery Charger," Proceedings of the 2012 IEEE Power & Energy Society General Meeting, 22 26 July 2012, San Diego, California.
- [C31]. Anamika Dubey and Abhishek Sharma, "Multimodal Face Recognition using Hybrid Correlation Filters," NCVPRIPG, Jaipur, India, 2010.
- [C32]. Abhishek Sharma and Anamika Dubey, "Facial Expression Recognition using Virtual Neutral Image Synthesis," NCVPRIPG, Jaipur, India, 2010.

D. Thesis

- [T1]. Anamika Dubey, "Distributed Resource Integration Analysis and Network Design of Electric Power Distribution Systems," Ph.D. dissertation, Department of Electrical Engineering and Computer Science, The University of Texas at Austin, Dec. 2015.
- [T2]. Anamika Dubey, "Impacts of Electric Vehicle Loads on Utility Distribution Network Voltages," Master's Thesis, Department of Electrical Engineering and Computer Science, The University of Texas at Austin, Aug. 2012.
- [T3]. Anamika Dubey, "Designing Expert Feeder System for Distribution System Phase Balancing," B.Tech. Thesis, IIT Roorkee, India, May 2010.

E. Patents

- [P1]. Hongbo Sun and Anamika Dubey, "Locating Multi-Phase Faults in Ungrounded Power Distribution Systems," Patent US 20150226780 A1, 13 Aug. 2015.
- [P2]. Hongbo Sun and Anamika Dubey, "Decoupled Three-Phase Power Flow Analysis Method for Unbalanced Power Distribution Systems," Patent U.S. 20130226482 A1, 29 Aug. 2013.

PRESENTATIONS AND OUTREACH

A. Invited Talks

- [1]. Dubey, A., "Control and Operation of Large-Scale Power Distribution Systems," Invited Talk NSF/JST/Norway Workshop at Indian Institute of technology, Bombay, Bombay India. (Jan 2019)
- [2]. Dubey, A., "Advances in Electric Power Distribution Systems," Invited Talk at Indian Institute of technology, Roorkee, Roorkee India. (Jan 2019).
- [3]. Yu N. and Dubey A., "Economical and Engineering Aspects of Proactive Demand Participation: Centralized versus Bilateral Control Structure," DOE peer-review meeting, Washington DC, (June 2018).
- [4]. Dubey, A., Application Developer Fall Workshop, "Applications to be Developed for GridAPPS-D Platform," PNNL, Tri-cities, WA, United States of America. (May 2018).
- [5]. Dubey, A. "Impacts of distributed energy resources on electric power distribution systems" Invited talk at Colorado School of Mines, Golden, CO, United States of America (April 2018).
- [6]. Dubey, A., Application Developer Fall Workshop, "Applications to be Developed for GridAPPS-D Platform," PNNL, Seattle, WA, United States of America. (November 2017).
- [7]. Dubey, A., ESIC board meeting, "WSU ESIC Seed Grant Presentations," WSU ESIC, Pullman, WA, United States of America. (October 2017).
- [8]. Dubey, A., "Advances in Electric Power Distribution Systems," Indian Institute of technology, Chennai, Chennai, India. (May 2017).
- [9]. Dubey, A., "Advances in Electric Power Distribution Systems," University of Idaho, Electrical and Computer Engineering, Moscow, ID, United States of America. (April 2017).
- [10]. Dubey, A., AMS Sectional Meeting Program, "Restoring Critical Loads in a Resilient Power Distribution System," Pullman, WA, United States of America. (April 2017).
- [11]. Dubey, A, and Sen P.K., "Framework to Analyze Interactions between Transmission and Distribution Systems with High DER Penetrations," presented at PSERC IAB meeting, Atlanta, GA, (Dec. 2016).
- [12]. Yu, N., Dubey, A., and Liu. C-C, "Economical and Engineering Aspects of Proactive Demand Participation: Centralized versus Bilateral Control Structure," presented at DOE Kickoff meeting, Riverside, CA, (Oct 2016).
- [13]. Dubey, A., Aravinthan V., and Singh C., "A Modular Framework to Develop Resilient Power Delivery Systems," presented at PSERC Summer Workshop, Albuquerque, NM, (August 2016).
- [14]. Dubey, A., "Modern Power Distribution Systems: Challenges, Solutions and Future Directions," presented at ESIC IAB meeting, Spokane, WA, (March 2016).
- [15]. Dubey, A., "PV Hosting Capacity of Distribution System," presented at IEEE MetroCon 2014 Conference, Arlington, TX, (Oct. 2014).

B. Poster Presentations

- [1]. Velaga, Y. N., Krishnamoorthy, G., Dubey, A., and Sen, P.K., "T-60: Transmission-Distribution Co-Simulation: DER Impacts on Transmission & Distribution," PSERC IAB Meeting, University of California Berkeley. (Dec 2018).
- [2]. Velaga, Y. N., Krishnamoorthy, G., Dubey, A., and Sen, P.K., "T-60: Co-Simulation Model to Analyze Interactions between T&D Systems with High DER Penetrations," PSERC IAB Meeting, Wichita, Kansas (May 2018).
- [3]. Krishnamoorthy, G., Dubey, A., and Sen, P.K., "T-60: Transmission-Distribution Co-Simulation: Analytical Methods for Iterative Coupling," PSERC IAB Meeting, Wichita, Kansas (May 2018).
- [4]. Dubey A., GridEd Technology Transfer Workshop for Affiliate Universities, "WSU Electric Power Engineering Program" at Dallas, TX, April 2018.
- [5]. Dudley, I., Eggers, B., Clark, D., Ekhhart, T., Ricker, D., Dubey, A., DistribuTECH Conference and Exhibition, "Implementation of Camera Technology for Diagnostic Applications on the Rotor of a Spinning Hydroelectric Generator," San Antonio, TX, United States of America. (January 2018).
- [6]. Velaga, Y. N., Chen, A., Krishnamoorthy, G., Sen, P.K., and Dubey, A., PSERC IAB Meeting, "T-60: Framework to Analyze Interactions between Transmission and Distribution Systems with High DER Penetrations," PSERC, AZ, United States of America. (December 2017).
- [7]. Dubey, A., LSAMP Fall Research Banquet, "Advances in Electric Power Distribution System," LSAMP, Pullman, WA, United States of America. (September 2017)

C. Other Professional Development Activities

- [1]. NSF/JST/RCN/IITB Workshop Attended NSF/JST/RCN/IITB Workshop held at IIT Bombay, India. January 13-15, 2019.
- [2]. DOE Microgrid Program Attended DOE Microgrid Program in-process review meeting, Seattle, WA. December 11-12, 2018.
- [3]. NSF Real Time Data Analytics Workshop Attended NSF Real Time Data Analytics Workshop, Portland, WA. Aug 3-5, 2018.
- [4]. DOE Microgrid Program Attended DOE Microgrid Program in-process review meeting, Charlotte, NC. June 5-6, 2018.
- [5]. PSERC IAB meeting Attended PSERC IAB Meeting, Wichita, KS, May 2018.
- [6]. GridEd Attended Technology Transfer Workshop for Affiliate Universities as a representative from WSU at Dallas, TX, April 2018.
- [7]. NSF CISE Career Proposal Workshop Attended NSF CISE Career Proposal Workshop, Alexandria, VA, April 2018.
- [8]. DOE Microgrid Program Attended DOE Microgrid Program in-process review meeting, Chattanooga, TN. December 13-14, 2017.
- [9]. NSF Grants Conference Attended Fall 2017 NSF Grants Conference, Phoenix, AZ, Nov. 2017.
- [10]. GridEd Attended Technology Transfer Workshop for Affiliate Universities as a representative from WSU at Dallas, TX, April 2017.
- [11]. UK-US Grid Modernization Collaboration Attended and participated in the workshop organized by National Renewable Energy Laboratory to foster collaboration between US and UK related to efforts on Grid Modernization, Golden, CO, March 2017.
- [12]. EPRI Smart Inverter Short Course Attended short course on smart inverters offered by EPRI, Huntington Beach, CA, Feb. 2017.
- [13]. NWPPA (Northwest Women in Public Power Association) Attended Women in Public Power Conference and successfully completed Northwest Public Power Association Education Course, Portland, WA, Nov. 2016.
- [14]. PNNL Participated in ADMS Functional Requirements workshop. The training was required as a part of ADMS project funded by DOE. Seattle, WA, Sept 2016.
- [15]. GridEd Attended Technology Transfer Workshop for Affiliate Universities as a representative from WSU at Dallas, TX, April 2016.

PROFESSIONAL SERVICE AND ACTIVITIES

A. GridEd West Program, WSU POC (Point of contact)

Responsibilities include – participate in yearly technology transfer workshop, elect student innovation board members from WSU, attend and disseminate GridEd short courses, review and comment on curriculum developed under the GridEd program.

B. Mentoring Underrepresented Minority (URM) Students

- Member of Pacific Northwest Louis Stokes Alliances for Minority Participation (PNW LSAMP) program, advising a group of 4 undergraduate students.
- Member of Team Mentoring Program (TMP) at Washington State University (WSU).

C. Service to Department Committee

- Serving as a member of CS Faculty Search Committee at Washington State University (WSU) 2018-2019.
- Serving as a member of EECS Teaching Excellence Committee at Washington State University (WSU) 2018-2019.
- Served as a member of EECS Graduate Studies Committee (GSC) at Washington State University (WSU) 2017-2018.

D. Service to Professional Society

- Serving as IEEE Palouse Section PES Chapter Chair starting Jan. 2019.
- Chaired a paper forum session at IEEE PES GM 2018
- Served as Conference Organization Committee Member for 2018 IEEE International Conference on Probabilistic Methods Applied to Power Systems (PMAPS).
- Chaired a paper forum session at IEEE PES GM 2017.

E. Professional Society Membership

- Member, IEEE PES AMPS Distribution System Analysis Subcommittee.
- Member, IEEE PES Reliability, Risk and Probability Applications Subcommittee
- Member, American Society for Engineering Education, ASEE, Oct 2016 Present
- Member, IEEE, 2015-present
- Member, IEEE Power and Energy Society (PES), 2015-present
- Member, IEEE Women in Power (WIP), 2015-present
- Member, IEEE Women in Engineering (WIE), 2015-present
- Student Member, IEEE, 2010 2015
- Student Member, IEEE Power and Energy Society (PES), 2010-2015

F. Peer Review Service

- Reviewer, IEEE Transactions on Smart Grid.
- Reviewer, IEEE Transactions on Power Systems.
- Reviewer, IEEE Transactions on Power Delivery.
- Reviewer, Journal of Renewable Energy.
- Reviewer, IET Generation, Transmission & Distribution.
- Reviewer, IEEE Power and Engineering Society General Meeting (PES-GM).