#### VITAE

**Date:** January 20, 2023

Name: Wei-Jen Lee

Citizenship: USA

**Rank:** Professor of Electrical Engineering Department

Director of Energy Systems Research Center

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**Department/School:** Electrical Engineering/The University of Texas at Arlington

Area of Specialization: Utility Deregulation, Renewable Energy, Arc Flash Hazards and

Electrical Safety, Smart Grid, MicroGrid, Industrial Internet of Things (IIoT) and Virtual Power Plants (VPP), AI for Load, Price, and Wind Capacity Forecasting, Power Quality, Distribution Automation, Demand Response, Power Systems Analysis, Short Circuit Analysis and Relay Coordination, Distributed Energy Resources, Energy Storage System, PEV Charging Infrastructure Design, AMI and Big Data, On Line Real Time Equipment Diagnostic and Prognostic System, and Microcomputer Based Instrument for Power Systems Monitoring,

Measurement, Control, and Protection

#### 1. Education

University	Degree	Major	Date
University of Texas at Arlington	Ph.D.	Electrical Engineering	December 1985
National Taiwan University	M.S.	Electrical Engineering	June 1980
National Taiwan University	B.S.	Electrical Engineering	June 1978

# 2. Employment (Academic Positions Held and Other Professional Experience: List in Chronological Order)

Employer	Title	Dates
The University of Texas	Director	09/01/03 - Present
at Arlington	Energy Systems Research Center	
The University of Texas	Professor	09/01/98 - Present
at Arlington		
The University of Texas	Associate Professor	09/01/92 - 08/31/98
at Arlington		
The University of Texas	Assistant Professor	09/01/86 - 08/31/92
at Arlington		

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	The University of Texas Visiting Assistant Professor at Arlington	01/15/86 - 08/31/86
3.	Memberships in Learned or Professional Organizations  1. Institute of Electrical and Electronics Engineering (IEEE)	
	<ul><li>* Fellow</li><li>* Senior Member</li><li>* Member</li></ul>	Jan. 2007 – Present Mar. 1997 – Dec. 2006 1986 - Mar. 1997
	2. Registered Professional Engineer in the State of Texas	Feb. 5, 1993 – Present
	3. Chair, IEEE Smart Grid Program	Jan. 2023 – Present
	4. Member, National Academy of Inventors	May 2022 – Present
	<ol><li>Co-Chair, IEEE Joint OU Ad Hoc on Sustainable Development (SDAH)</li></ol>	Jan. 2022 – Present
	6. Chair, IEEE Technical Activity Board (TAB) Climate	Jan. 2022 – Present
	Change Program	
	7. Member, IEEE Ad Hoc Committee to Coordinate IEEE Response to Climate Change (CCIRCC)	Jan. 2022 – Present
	8. Member, IEEE TAB Hall of Honor Selection Committee	Jan. 2022 – Present
	9. Member, United Nations Council of Engineers for the Energy Transition (CEET)	May 2022 – Present
	10. Member, Pillar 4 of Global Power Systems Transformation	Jan. 2021 – Present
	11. Chair, IEEE Smart Cities Education Committee	Jan. 2017 – Present
	12. Project Manager, IEEE/NFPA Arc Flash Phenomena Collaborative Research Project	Sept. 2008 – Present
	13. Board Member, Transmission & Substation Design & Operation Symposium (TSDOS)	Jan. 2003 – Present
	14. President, IEEE, Industry Application Society	Jan. 2021 – Dec. 2022
	15. Member, IEEE Smart Grid Education Committee	Jan. 2017 – Dec. 2022
	16. Prominent Lecturer, IEEE-IAS	Jan. 2019 – Dec. 2021
	17. Member, IEEE Smart Cities Steering Committee	Jan. 2017 – Dec. 2020
	18. Associate Editor, IEEE Transactions on Industry Applications	Dec. 2007 – Dec. 2020
	19. President Elect, IEEE, Industry Application Society	Jan. 2019 – Dec. 2020
	20. Vice President, IEEE, Industry Application Society	Jan. 2017 – Dec. 2018
	21. Vice Chair, IEEE PowerAfrica Steering Committee	Feb. 2019 – Dec. 2020
	22. Member, IEEE Fellow Evaluation Committee	Jan. 2017 – Dec. 2020
	23. External Examiner, Multimedia University, Malaysia	Sept. 2014 – Dec. 2019

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24. Member, IEEE Smart Grid Operation Committee	Jan. 2014 – Present			
25. Member, IEEE Smart Grid R&D Committee	Jan. 2014 – Dec. 2019			
26. Chair, Long Range Planning Committee, IEEE-IAS	Jan. 2017 – Dec. 2018			
27. Member, Fellow Strategic and Planning Subcommittee, IEEE Fellow Committee	Jan. 2018 – Dec. 2018			
28. Chair, IEEE Smart Grid, Working Group for White Paper on Battery Storage System	Mar. 2016 – May 2018			
29. Distinguished Lecturer, IEEE-IAS	2017 - 2018			
30. Member, IEEE-IAS Fellow Evaluation Committee	2014 - 2016			
31. Member, IEEE-PES Fellow Evaluation Committee	2016			
32. Associate Editor, International Journal of Power and Energy Systems	Dec. 2001 – Dec. 2013			
33. Chair, IEEE-IAS, I&CPS Department	Jan. 2015 – Dec. 2016			
34. Vice Chair-Technical, IEEE-IAS, I&CPS Department	Jan. 2013 – Dec. 2014			
35. Vice Chair-Paper, IEEE-IAS, I&CPS DepartmentJan. 2011 – Dec. 2012				
36. Secretary, IEEE-IAS, I&CPS Department	Jan. 2007 – Dec. 2010			
37. Chair, IEEE-IAS, I&CPS Department, Energy Systems Committee	Jan. 2005 – May 2009			
38. Chair, Power System Analysis Sub-Committee IEEE-IAS, I&CPS Department, Power Systems Engineering Committee	May 2002 – May 2003			
39. Vice Chair, Utility Deregulation Subcommittee IEEE-IAS, I&CPS Department, Energy System Committee	May 2000 – May 2007			
40. Vice Chair, Emergency and Standby Power System Subcommittee, IEEE-IAS, I&CPS Department, Power System Engineering Committee	May 2000 – May 2002			
41. Chair, IEEE-IAS, I&CPS Department, Power System Engineering Committee	Jan. 1997 – Dec. 1998			
42. Vice Chair, IEEE-IAS, I&CPS Department, Power System Engineering Committee	Jan. 1995 - Dec. 1996			
43. Secretary, Power System Analysis Sub-Committee IEEE-IAS, I&CPS Department, Power Systems Engineering Committee	May 1992 - May 1995			

## 4. Honors and Awards

1. PCIC Electrical Safety Excellence Award

Organization: IEEE-IAS, Petroleum and Chemicals Industry Committee (PCIC)

**Date:** September 2022

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2. Committee Prize Paper Award: Typical Fault Cause Recognition of Single-Phase-to-Ground Fault for Overhead Lines in Non-Solidly Earthed Distribution Networks

Organization: Power Systems Protection Committee, IEEE-IAS, Industrial and

Commercial Power Systems Department

**Date:** May 2022

3. First Place of the IAS Magazine Prize Paper Award: Introduction to IEEE Standard 1584 – Guide for Performing Arc-Flash Hazard Calculations – 2018 Edition

**Organization:** IEEE-IAS **Date:** October 2021

4. Third Place of the IAS Transactions Prize Paper Award: Wind Farm Dynamic Equivalent Modeling Method for Power System Probabilistic Stability Assessment

**Organization:** IEEE Industry Applications Society

**Date:** October 2021

5. Best Paper Award: A Data-driven Method for Fast AC Optimal Power Flow Solutions via Deep Reinforcement Learning

**Organization:** Journal of Modern Power Systems and Clean Energy

**Date:** August 2021

6. Committee Prize Paper Award: Introduction to IEEE Standard 1584 – Guide for Performing Arc-Flash Hazard Calculations – 2018 Edition

**Organization:** IEEE-IAS, Petroleum and Chemicals Industry Committee (PCIC)

**Date:** September 2020

7. Department Prize Paper Award: Arc Voltage Characteristics of Medium-Low Voltage Arc Fault in Short Gaps

Organization: IEEE-IAS, Industrial and Commercial Power Systems Ralph H. Lee

Department Paper Award

**Date:** October 2019

8. Committee Prize Paper Award: A Contactless Insulator Contamination Levels Detecting Method Based on Infrared Images features and RBFNN

Organization: Power Systems Protection Committee, IEEE-IAS, Industrial and

Commercial Power Systems Department

**Date:** October 2019

9. Best Focus Session Paper Award: Using Spectrum of the Light for High Speed Arcing Fault Protection

**Organization:** IEEE-IAS, Electrical Safety Workshop

**Date:** March 2019

10. Department Achievement Award

Organization: IEEE-IAS, Industrial and Commercial Power Systems Department

**Date:** May 2018

11. Outstanding Service Award

**Organization:** IEEE-IAS, Industrial and Commercial Power Systems Department

**Date:** May 2017

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12. Committee Prize Paper Award: 3D Magnetohydrodynamic Modeling of DC Arc in Power System

Organization: Power Systems Engineering Committee, IEEE-IAS, Industrial and

Commercial Power Systems Department

**Date:** May 2017

13. Committee Prize Paper Award: Interactive Model for Energy Management of Clustered Microgrids

Organization: Energy Systems Committee, IEEE-IAS, Industrial and Commercial

Power Systems Department

**Date:** May 2017

14. Department Prize Paper Award: Novel Hybrid Market Price Forecasting Method with Data Clustering Techniques for EV Charging Station Application

Organization: IEEE-IAS, Industrial and Commercial Power Systems Ralph H. Lee

Department Paper Award.

**Date:** May 2015

15. Committee Prize Paper Award: Electrical Safety, Electrical Hazards & the 2015 NFPA 70E, Time to Update Annex K?

**Organization:** Codes and Standards Committee, IEEE-IAS, Industrial and Commercial

Power Systems Department

**Date:** May 2015

16. Committee Prize Paper Award: A New Measurement Method for Power Signatures of Non-intrusive Demand Monitoring and Load Identification

Organization: Power Systems Engineering Committee, IEEE-IAS, Industrial and

Commercial Power Systems Department

**Date:** May 2012

17. Academy of Distinguished Scholar: University of Texas at Arlington

**Organization:** The University of Texas at Arlington.

**Date:** April 2012

18. Outstanding Service Award

**Organization:** IEEE-IAS, Industrial and Commercial Power Systems Department

**Date:** May 2009

19. Committee Prize Paper Award: Design Optimization of Wind Power Planning for a Country with Low-Medium Wind Speed Profile

Organization: Energy Systems Committee, IEEE-IAS, Industrial and Commercial

Power Systems Department

**Date:** May 2008

20. Committee Prize Paper Award: Multi-Stage Artificial Neural Network Short-term Load Forecasting Engine with Front-End Weather Forecast

Organization: Energy Systems Committee, IEEE-IAS, Industrial and Commercial

Power Systems Department

**Date:** May 2007

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21. Research Achievement Award: University of Texas at Arlington

**Organization:** The University of Texas at Arlington.

**Date:** April 2007

22. Department Prize Paper Award: Integrated High Speed Intelligent Utility Tie Unit for Disbursed/Renewable Generation Facilities

Organization: IEEE-IAS, Industrial and Commercial Power Systems Ralph H. Lee

Department Paper Award.

**Date:** May 2005

23. College of Engineering Research Excellence Award

**Organization:** College of Engineering, The University of Texas at Arlington.

**Date:** February 2004

24. Committee Prize Paper Award: The Design of a Capacitor Bank Early Warning System

Organization: Power Systems Protection Committee, IEEE-IAS, Industrial and

Commercial Power Systems Department.

**Date:** May 2003

25. External Examiner

Organization: Ngee Ann Polytechnic, Singapore

**Date:** May 1999 – May 2003

26. Third Prize Paper Award: Neural Network Based Demand Forecasting in a Deregulated Environment

**Organization:** IEEE, Industry Application Society

**Date:** October 2001

27. Committee Prize Paper Award: Wheeling Charge Under a Deregulated Environment

Organization: Energy Systems Committee, IEEE-IAS, Industrial and Commercial

Power Systems Department.

**Date:** May 2001

28. Committee Prize Paper Award: Neural Network Based Demand Forecasting in a Deregulated Environment

Organization: Energy Systems Committee, IEEE-IAS, Industrial and Commercial

Power Systems Department.

**Date:** May 2000

29. Outstanding Service Award

**Organization:** Dallas Section, Industrial Application Society of Institute of Electrical

and Electronics Engineers, Inc.

**Date:** May 1998

30. Outstanding Contribution to the Energy Training Program: Power System Protection and Control

Organization: United States Agency for International Development (USAID) and The

Institute of International Education (IIE)

**Date:** August 1994

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31. Outstanding Contribution to the Energy Training Program: Power System Protection and Control

Organization: United States Agency for International Development (USAID) and The

Institute of International Education (IIE)

**Date:** August 1991

32. Outstanding Contribution to the Energy Training Program: Power System Operations

Organization: United States Agency for International Development (USAID) and The

Institute of International Education (IIE)

**Date:** August 1990

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#### 5. Research and Publications:

### 5A. Books and Book chapters:

Book Title: IEEE Std. 1584-2018, IEEE Guide for Performing Arc-Flash Hazard

Calculations

**Publisher:** Institute of Electrical and Electronics Engineers, Inc. (IEEE)

**Chapter:** Working Group Member/Provide Models for Arcing Current, Incident Energy,

and Protection Boundary Estimation

Book Title: IEEE Std. 3002.8-2018, IEEE Recommended Practice for Conducting

Harmonic Studies and Analysis of Industrial and Commercial Power Systems

**Publisher:** Institute of Electrical and Electronics Engineers, Inc. (IEEE)

**Chapter:** Working Group Member

Book Title: IEEE Std. 551-2006 (Violet Book), IEEE Recommended Practice for

Calculating Short-Circuit Currents in Industrial and Commercial Power

System Analysis.

**Publisher:** Institute of Electrical and Electronics Engineers, Inc. (IEEE)

**Chapter:** Contributor of the Book

Book Title: IEEE Std. 399-1998 (Brown Book), IEEE Recommended Practice for

Industrial and Commercial Power System Analysis.

**Publisher:** Institute of Electrical and Electronics Engineers, Inc. (IEEE)

**Chapter:** Chapter 8: Stability Analysis

**Authors:** Chapter Chairman: **Wei-Jen Lee**, Co-Chairman: Dr. Mark Halpin

**Book Title:** IEEE-Std. 739-1995 (Bronze Book), IEEE Recommended Practice for Energy

Management in Commercial and Industrial Facilities. (New Revision)

**Publisher:** Institute of Electrical and Electronics Engineers, Inc. (IEEE)

Chapter: Chapter 5: Energy Management for Motors, Systems, and Electrical

Equipment

Authors: Chapter Chairman: R. C. Lennig; Working Members: Wei-Jen Lee, R. G.

Irvine

Book Title: IEEE-Std. 141-1993 (Red Book), IEEE Recommended Practice for Electric

Power Distribution for Industrial Plants. (New Revision)

**Publisher:** Institute of Electrical and Electronics Engineers, Inc. (IEEE)

**Chapter:** Chapter 6: Surge Voltage Protection

**Authors:** Chapter Chairman: **Wei-Jen Lee**; Working Members: D. Baker, C. Becker, G.

Gaibrois, M. S. Griffith, W. J. Moylan, and G. Walsh

**Book Title:** Analysis and Control System Techniques for Electric Power Systems

**Publisher:** Academic Press, Inc., 1991.

**Chapter:** Dynamic Stability Analysis and Control of Power Systems

**Authors:** Y. H. Moon, **Wei-Jen Lee**, M. S. Chen

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#### **5B.** Published articles:

#### **Referred Archival Serial Journal Articles**

- 1. Yuan Huang, Zhaohao Ding, and **Wei-Jen Lee**, "Charging Cost Aware Fleet Management for Shared on-Demand Green Logistic System", IEEE Internet of Things Journal (Early Access).
- 2. Peng Wang, Zhenyuan Zhang, Tengfei Ma, Qi Huang, and Wei-Jen Lee, "Parameter Calibration of Wind Farm with Error Tracing Technique and Correlated Parameter Identification", IEEE Transactions on Power Systems (Early Access)
- 3. Yimeng Sun, Zhaohao Ding, Zechun Hu, and **Wei-Jen Lee**, "Risk-aware Operation Modeling for Ride-Hailing Fleet in Order Grabbing Mode: A Distributional Reinforcement Learning Approach", IEEE Transactions on Smart Grid (Early Access)
- 4. Zhenyuan Zhang, Yuxiang Huang, Zihan Chen, Qi Huang, and **Wei-Jen Lee**, "Integrated Demand Response for Microgrids with Incentive Compatible Bidding Mechanism", IEEE Transactions on Industry Applications. Volume: 59, Issue: 1, January/February 2023. Pp 118 127.
- 5. Yanchang Liang, Zhaohao Ding, Tianyang Zhao, and **Wei-Jen Lee**, "Real-Time Operation Management for Battery Swapping-Charging System via Multi-Agent Deep Reinforcement Learning", IEEE Transactions on Smart Grid. Volume: 14, Issue: 1, January 2023. Pp 559 571.
- 6. Diansheng Luo, Jie Fang, Hongying He, **Wei-Jen Lee**, Zhenyuan Zhang, Hongtao Zai, Wengang Chen, and Ke Zhang, "Prediction for Dissolved Gas in Power Transformer Oil Based on TCN and GCN", IEEE Transactions on Industry Applications. Volume: 58, Issue: 6, November/December 2022. Pp 7818 7826.
- 7. Zhaohao Ding, Wenrui Tan, Wenbing Lu and **Wei-Jen Lee**, "Quality-of-Service Aware Battery Swapping Navigation and Pricing for Autonomous Mobility on Demand System", IEEE Transactions on Industrial Informatics. Volume: 18, Issue: 11, November 2022. Pp8247 8257.
- 8. Wenrui Tan, Yimeng Sun, Zhaohao Ding, and **Wei-Jen Lee**, "Fleet Management and Charging Scheduling for Shared Mobility-on-demand System: A Systematic Review", IEEE Open Access Journal of Power and Energy. Volume: 9, October 2022. Pp 425 436.
- 9. Yuhao Zhou, **Wei-Jen Lee**, Ruisheng Diao, and Di Shi, "Deep Reinforcement Learning Based Real-time AC Optimal Power Flow Considering Uncertainties", Journal of Modern Power Systems and Clean Energy (MPCE). Volume: 10, Issue: 5, September 2022. Pp 1098 1109.
- 10. Zhenyuan Zhang, Pengfei Zhao, Peng Wang, and **Wei-Jen Lee**, "Transfer Learning Featured Short-Term Combining Forecasting Model for Residential Loads with Small Sample Sets", IEEE Transactions on Industry Applications. Volume: 58, Issue: 4, July/August 2022. Pp 4279 4288.
- 11. Peng Wang, Zhenyuan Zhang, Qi Huang, Xiaotian Tang, and **Wei-Jen Lee**, "Approach for Parameter Calibration to Microgrid Model with Problematic Parameter

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- Identification", IEEE Transactions on Industry Applications. Volume: 58, Issue: 4, July/August 2022. Pp 4289 4297.
- 12. Zhenyuan Zhang, Zihan Chen, and **Wei-Jen Lee**, "Soft Actor–Critic Algorithm Featured Residential Demand Response Strategic Bidding for Load Aggregators", IEEE Transactions on Industry Applications. Volume: 58, Issue: 4, July/August 2022. Pp 4298 4308.
- 13. Zhenyuan Zhang, Jie Ren, Xiaotian Tang, Shi Jing, and **Wei-Jen Lee**, "Novel Approach for Arc Fault Identification with Transient and Steady State based Time-Frequency Analysis", IEEE Transactions on Industry Applications. Volume: 58, Issue: 4, July/August 2022. Pp 4359 4369.
- 14. Farshid Salehi, Amir Golshani, Igor Brandao Machado Matsuo, Payman Dehghanian, Mehriar Aghazadeh Tabrizi, and **Wei-Jen Lee**, "On Mitigation of Sub-Synchronous Control Interactions in Hybrid Generation Resources", IEEE Transactions on Industrial Informatics. Volume: 18, Issue: 7, July 2022. Pp 4372 4382.
- 15. Xiaolin Ge, Jia Qian, Yang Fu, **Wei-Jen Lee**, Yang Mi, "Transient Stability Evaluation Criterion of Multi-Wind Farms Integrated Power System", IEEE Transactions on Power Systems. Volume: 37, Issue: 4, July 2022. Pp3137 3140.
- 16. Zhaohao Ding, Kaiyuan Yu, Cheng Wang, and **Wei-Jen Lee**, "Transmission Line Overload Risk Assessment Considering Dynamic Line Rating Mechanism in High Wind Penetrated Power System: A Data-Driven Approach", IEEE Transactions on Sustainable Energy. Volume: 13, Issue: 2, April 2022. Pp 1112 1122.
- 17. Kaiqi Sun, Ke-Jun Li, Zhengfa Zhang, Yongliang Liang, Zhijie Liu, and **Wei-Jen Lee**, "An Integration Scheme of Renewable Energies, Hydrogen Plant, and Logistics Center in the Suburban Power Grid", IEEE Transactions on Industry Applications. Volume: 58, Issue: 2, March/April 2022. Pp 2771 2779.
- 18. Hsueh-Hsien Chang, Tse-Chih Lai, Heng-Jui Chang, and **Wei-Jen Lee**, "Fault Location Identifications in HV Transmission Networks and different MV Wind Farms using Non-intrusive Monitoring Techniques", IEEE Transactions on Industry Applications. Volume: 58, Issue: 2, March/April 2022. Pp 1822 1830.
- 19. Liangzi Zi, Ke-Jun Li, Kaiqi Sun, Zhijie Liu, and **Wei-Jen Lee**, "A Comparative Study on Voltage Level Standard for DC Residential Power Systems", IEEE Transactions on Industry Applications. Volume: 58, Issue: 2, March/April 2022. Pp 1446 1455.
- 20. Ying Lu, Yanchang Liang, Zhaohao Ding, Qiuwei Wu, Tao Ding, and **Wei-Jen Lee**, "Deep Reinforcement Learning-based Charging Pricing for Autonomous Mobility-on-Demand System", IEEE Transactions on Smart Grid. Volume: 13, Issue: 2, March 2022. Pp 1412 1426.
- 21. Menglin Li, Ming Yang, Yixiao Yu, and **Wei-Jen Lee**, "A Wind Speed Correction Method Based on Modified Hidden Markov Model for Enhancing Wind Power Forecast', IEEE Transactions on Industry Applications. Volume: 58, Issue: 1, January/February 2022. Pp 656 666.

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- 22. Anusha Papasani, Kaynat Zia, and **Wei-Jen Lee**, "Automatic Power System Restoration with Inrush Current Estimation for Industrial Facility", IEEE Transactions on Industry Applications. Volume: 57, Issue: 6, November/December 2021. Pp 5772 5781.
- 23. Ali Mohammed Jobayer, Md Rahan Chowdhury, Long Zhao, Anusha Papasani, Yuhao Zhou, and **Wei-Jen Lee**, "Impact of Societal Events on Frequency Stability Considering LED TVs in Low Inertia Trending Power Systems", IEEE Transactions on Industry Applications. Volume: 57, Issue: 6, November/December 2021. Pp 5649 5657.
- 24. Zhaohao Ding, Wenrui Tan, **Wei-Jen Lee**, Xuyang Pan, and Shiqiao Gao, "Integrated Operation Model for Autonomous Mobility on Demand Fleet and Battery Swapping Station", IEEE Transactions on Industry Applications. Volume: 57, Issue: 6, November/December 2021. Pp 5593 5602.
- 25. Can Wan, Zhaojing Cao, **Wei-Jen Lee**, Yonghua Song, and Ping Ju, "An Adaptive Ensemble Data Driven Approach for Nonparametric Probabilistic Forecasting of Electricity Load", IEEE Transactions on Smart Grid. Volume: 12, Issue: 6, November 2021. Pp 5396 5408.
- 26. Peng Wang, Zhenyuan Zhang, Qi Huang, Weijun Zhang, and **Wei-Jen Lee**, "PMU Based Problematic Parameter Identification Approach for Calibrating Generating Unit Models", IEEE Transactions on Industry Applications. Volume: 57, Issue: 5, September/October 2021. Pp 4520 4527.
- 27. Bonan An, Yong Li, Josep M. Guerrero, **Wei-Jen Lee**, Longfu Luo, and Zhixue Zhang, "Renewable Energy Integration in Intelligent Railway of China: Configurations, Applications and Issues", IEEE Intelligent Transportation Systems Magazine. Volume: 13, Issue: 3, Fall 2021. Pp 13 33.
- 28. Lingyue Zhang, Hui Li, **Wei-Jen Lee**, and Hua Liao, "COVID-19 and Energy: Influence Mechanisms and Research Methodologies", Sustainable Production and Consumption (Elsevier). Volume 27, July 2021, Pp 2134 2152.
- 29. Zhenyuan Zhang, Yuxiang Huang, Qi Huang, and **Wei-Jen Lee**, "A Novel Hierarchical Demand Response Strategy for Residential Microgrid", IEEE Transactions on Industry Applications. Volume: 57, Issue: 4, July/August 2021. Pp 3262 3271.
- 30. Zhenyuan Zhang, Haoyue Tang, Qi Huang, and **Wei-Jen Lee**, "Strategic Prosumers-Based Peer-to-Peer Energy Market Design for Community Microgrids", IEEE Transactions on Industry Applications. Volume: 57, Issue: 3, May/June 2021. Pp 2048 2057.
- 31. Zhenyuan Zhang, Xiaotian Tang, and **Wei-Jen Lee**, "Preemptive Medium-Low Voltage Arc Flash Detection with Geometric Distribution Analysis on Magnetic Field", IEEE Transactions on Industry Applications. Volume: 57, Issue: 3, May/June 2021. Pp 2129 2137.

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- 32. Peng Wang, Zhenyuan Zhang, Qi Huang, Xiaotian Tang, and **Wei-Jen Lee** "Robustness-Improved Method for Measurement-Based Equivalent Modeling of Active Distribution Network", IEEE Transactions on Industry Applications. Volume: 57, Issue: 3, May/June 2021. Pp 2146 2155.
- 33. Yong-Liang Liang, Ke-Jun Li, Zhao Ma, and **Wei-Jen Lee**, "Multilabel Classification Model for Type Recognition of Single-Phase-to-Ground Fault Based on KNN-Bayesian Method", IEEE Transactions on Industry Applications. Volume: 57, Issue: 2, March/April 2021. Pp 1294 1302.
- 34. Hsueh-Hsien Chang, Chuan-Choong Yang, and **Wei-Jen Lee**, "Fault Location Identification in Power Transmission Networks: Using Novel Nonintrusive Fault-Monitoring Systems", IEEE Industry Applications Magazine. Volume: 27, Issue: 2, March/April 2021. Pp 76 89.
- 35. Yanchang Liang, Zhaohao Ding, Tao Ding, and **Wei-Jen Lee**, "Mobility-Aware Charging Scheduling for Shared On-Demand Electric Vehicle Fleet Using Deep Reinforcement Learning", IEEE Transactions on Smart Grid, Volume: 12, Issue: 2, March 2021. Pp 1380 1393.
- 36. Yuhao Zhou, Bei Zhang, Chunlei Xu, Tu Lan, Ruisheng Diao, Di Shi, Zhiwei Wang, and **Wei-Jen Lee**, "A Data-driven Method for Fast AC Optimal Power Flow Solutions via Deep Reinforcement Learning", Journal of Modern Power Systems and Clean Energy (MPCE), Vol. 8, No. 6, November/December 2020.
- 37. Kaynat Zia, Anusha Papasani, David Rosewater, and **Wei-Jen Lee**, "Determine the Electrode Configuration and Sensitivity of the Enclosure Dimensions when Performing Arc Flash Analysis", IEEE Transactions on Industry Applications. Volume: 56, Issue: 6, November/December 2020. Pp 6307 6313.
- 38. Yong-Liang Liang, Ke-Jun Li, Zhao Ma, and **Wei-Jen Lee**, "Typical Fault Cause Recognition of Single-Phase-to-Ground Fault for Overhead Lines in Non-solidly Earthed Distribution Networks", IEEE Transactions on Industry Applications. Volume: 56, Issue: 6, November/December 2020. Pp 6298 6306.
- 39. Zhaohao Ding, Jinran Guo, Kexing Lai, and **Wei-Jen Lee**, "Spatial-Temporal Demand Management and Benefit Allocation for Geo-Distributed Charging Station and EV Aggregators", IEEE Transactions on Industry Applications. Volume: 56, Issue: 6, November/December 2020. Pp 6238 6249.
- 40. Bonan An, Yong Li, **Wei-Jen Lee**, and Houliang Zhou, "A Multiattribute and Multidimensional Based Comprehensive Evaluation Method for New Multipulse Integrated Metro Traction Power Supply System", IEEE Transactions on Industry Applications. Volume: 56, Issue: 6, November/December. 2020. Pp 6138 6149.
- 41. Zhaohao Ding, Ying Lu, Kexing Lai, Ming Yang, and **Wei-Jen Lee** "Optimal Coordinated Operation Scheduling for Electric Vehicle Aggregator and Charging Stations in an Integrated Electricity-Transportation System", International Journal of Electrical Power and Energy Systems. Volume: 121. October 2020.

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- 42. Xiaosheng Peng, Yuzhu Chen, Kai Cheng, Yunzheng Zhao, Bo Wang, Jianfeng Che, Jinyu Wen, Chen Lu, and **Wei-Jen Lee**, "Wind Power Prediction for Wind Farm Clusters Based on the Multi-feature Similarity Matching Method", IEEE Transactions on Industry Applications. Volume: 56, Issue: 5, September/October 2020. Pp 4679 4688.
- 43. **Wei-Jen Lee**, Goran Strbac, Zechun Hu, Zhaohao Ding, Piampoom Sarikprueck, Fei Teng, and Georges Kariniotakis, "Special Issue on Advanced Approaches and Applications for Electric Vehicle Charging Demand Management", IEEE Transactions on Industry Applications. Volume: 56, Issue: 5, September/October 2020. Pp 5682 5683.
- 44. Daleep Mohla, **Wei-Jen Lee**, Jim Phillips, and Albert Marroquin, "Introduction to IEEE Standard 1584: IEEE Guide for Performing Arc-Flash Hazard Calculations 2018 Edition", IEEE Industry Applications Magazine. Volume: 26, Issue: 5, September/October 2020. Pp 64 76.
- 45. Peng Wang, Zhenyuan Zhang, **Wei-Jen Lee**, Qi Huang, and Jianbo Yi, "Robustness Improvement on PMU Based Dynamic Equivalent Modeling of Distributed Small Hydropower Generator Stacks", IEEE Transactions on Power Systems. Volume: 35, Issue: 5, September 2020. Pp 3388 3399.
- 46. Feng Liu, Xinglong Ju, Ning Wang, Li Wang, and **Wei-Jen Lee**, "Wind farm macrositing optimization with insightful bi-criteria identification and relocation mechanism in genetic algorithm", Energy Conversion and Management. Volume: 217, August 2020. Pp 1 − 10.
- 47. Hongying He, **Wei-Jen Lee**, Diansheng Luo, and Yijia Cao, "A Contactless Zero-value Insulators Detection Method Based on Infrared Images Matching", IEEE Access. Volume: 8, July 2020. Pp 133882 133889.
- 48. Igor Matsuo, Farshid Salehi, Long Zhao, Yuhao Zhou, and **Wei-Jen Lee**, "Optimized Frequency Scanning of Nonlinear Devices Applied to Sub-Synchronous Resonance Screening", IEEE Transactions on Industry Applications. Volume: 56, Issue: 3, May-June 2020. Pp 2281 2291.
- 49. Peng Wang, Zhenyuan Zhang, Qi Huang, and **Wei-Jen Lee**, "Wind Farm Dynamic Equivalent Modeling Method for Power System Probabilistic Stability Assessment", IEEE Transactions on Industry Applications. Volume: 56, Issue: 3, May-June 2020. Pp 2273 2280.
- 50. Long Zhao, Kun-Long Chen, Shiuan-Hau Rau, and **Wei-Jen Lee**, "Using Spectrum of the Light for High-Speed Arcing Fault Protection", IEEE IAS Magazine. Volume: 26, No. 3, May/June 2020. Pp 29 36.
- 51. Shi Jing, Qi Huang, Fan Tang, **Wei-Jen Lee**, and Zhenyuan Zhang, "Study on Additional Dynamic Component of Electronic Current Transducer Based on Rogowski Coil and Its Test Approach", IEEE Transactions on Industry Applications. Volume: 56, Issue. 2, March/April 2020. Pp 1258 1265.

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#### **Conference Papers**

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- 308. **Wei-Jen Lee**, J. C. Gu, "A Microcomputer-Based Intelligent Load Shedding Relay," IEEE-PES Winter Power Meeting. New York, NY, Feb. 1989, Pp1-7.
- 309. W. C. Chu, **Wei-Jen Lee**, M. S. Chen, "Load Model for Load Flow Studies," IEEE-IAS Annual Conference. Atlanta, Georgia, Oct. 1987, Pp1319-1324.
- 310. M. S. Chen, R. R. Shoults, **Wei-Jen Lee**, "A New and Unique Operator Training Laboratory for the Co-Generation Industry," American Co-Generation Association First National Conference. Houston, TX, Sept. 1987, Pp1-7.
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## **5C. Short Courses and Invited Seminars**

1. Engineering Applications That Impact Climate Changes

**Location:** North Carolina, Charlotte

**Date:** October 29, 2022

**Sponsor:** IEEE HKN Student Leadership Conference

2. Sub-Synchronous and Super-Synchronous Resonance in the Power Systems

**Location:** On-Line Presentation **Date:** September 8, 2022

**Sponsor:** Transmission & Substation Design & Operation Symposium (TSDOS)

3. Tackling Climate Change-Connect with the TAB Climate Change Program

**Location:** On-Line Presentation **Date:** August 24, 2022

**Sponsor:** PowerAfrica Conference

4. IEEE 1584-2018 – What Do We Do Now?

**Location:** On-Line Presentation

**Date:** June 15, 2022

**Sponsor:** Pulp, Paper, and Forest Industry Conference, IEEE Industry Applications

Society

5. The Role of Industry Sector on Power System Transformation

**Location:** On-Line Presentation **Date:** February 25, 2022

Sponsor: Sri Lanka Chapter, IEEE Industry Applications Society

6. Impact of Live Broadcasting Societal Events on Frequency Stability in Low Inertia

Power Systems

**Location:** On-Line Presentation **Date:** December 4, 2021

**Sponsor:** 5<sup>th</sup> International Conference on Power and Energy Engineering (ICPEE

2021)

7. Zero Bouncing Circuit for Battery Model Development

**Location:** On-Line Presentation **Date:** October 26, 2021

Sponsor: 2021 DOE Office of Electricity Energy Storage Program Annual Peer

Review

8. Design of Test Equipment for Arc Flash Testing

**Location:** On-Line Presentation **Date:** October 15, 2021

**Sponsor:** IEEE IAS Annual Conference

9. Arc Flash Hazards and Electrical Safety

**Location:** On-Line Presentation **Date:** October 15, 2021

**Sponsor:** IEEE IAS Annual Conference

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10. The Role of Industry Sector on Net Zero Carbon Emission

**Location:** On-Line Presentation **Date:** September 24, 2021

**Sponsor:** The 6<sup>th</sup> International Conference on Power and Renewable Energy

11. Arc Flash Hazards and Electrical Safety: Introduction to the 2018 Edition of IEEE Std.

1584-2018: Guide for Performing Arc-Flash Hazard Calculations

**Location:** On-Line Presentation **Date:** August 26, 2021

**Sponsor:** IEEE PowerAfrica Conference

12. The Role of Industry Sector on Power System Transformation

**Location:** On-Line Presentation **Date:** August 11, 2021, 2021

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

13. Sustainable Energy Development for Smart Village (Panel Discussion)

**Location:** On-Line Presentation

**Date:** July 27, 2021

**Sponsor:** IEEE PES General Meeting (Sustainable Energy Development for Smart

Village)

14. Keep Rotating Outage as Planned Outage (Panel Discussion)

**Location:** On-Line Presentation

**Date:** July 26, 2021

**Sponsor:** IEEE PES General Meeting (Late Breaking News-Texas Energy Crisis)

15. Impact of Extreme Weather in February 2021 on ERCOT

**Location:** On-Line Presentation

**Date:** July 18, 2021

Sponsor: IEEE-IAS, Industrial and Commercial Power Systems (I&CPS)

Conference-Asia

16. Recent Events in ERCOT

**Location:** On-Line Presentation

**Date:** May 29, 2021

**Sponsor:** International Electrical and Energy Conference

17. The Texas Power Crisis (Panel Discussion)

**Location:** On-Line Presentation **Date:** February 19, 2021 **Sponsor:** IEEE Smart Grids

18. Power System Transformation: The Role of Industry Sector (Panel Discussion)

**Location:** On-Line Presentation **Date:** February 16, 2021

**Sponsor:** IEEE Innovative Smart Grid Technologies (ISGT) North American

19. Sub-Synchronous and Super-Synchronous Resonance in the Power Systems

**Location:** On-Line Presentation

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Date: November 21, 2020

**Sponsor:** International Conference on Power and Energy Engineering

20. Arc Flash Hazards and Electrical Safety: Introduction to the 2018 Edition of IEEE Std.

1584-2018: Guide for Performing Arc-Flash Hazard Calculations

**Location:** On-Line Presentation **Date:** October 26, 2020 **Sponsor:** IEEE Costa Rica

21. Capacity Values of Different Generation Resources

**Location:** On-Line Presentation **Date:** October 20, 2020

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

22. Effectiveness of Zero Pricing on Demand Shifting of Residential Customers

**Location:** On-Line Presentation **Date:** October 15, 2020

**Sponsor:** International Conference on Power and Renewable Energy (ICPRE)

23. Battery Storage Technologies & Their Potential Applications in Power Systems

**Location:** On-Line Presentation **Date:** September 26, 2020

**Sponsor:** IEEE-IAS Power and Energy Seminar

24. Arc Flash Hazard and Electrical Safety-New Revision of IEEE Std. 1584-2018

**Location:** On-Line Presentation **Date:** September 21, 2020

**Sponsor:** IEEE-IAS Power and Energy Seminar

25. Arc Flash Hazards and Electrical Safety: Introduction to the 2018 Edition of IEEE Std.

1584-2018: Guide for Performing Arc-Flash Hazard Calculations

**Location:** On-Line Presentation **Date:** September 9, 2020

**Sponsor:** Transmission & Substation Design & Operation Symposium (TSDOS)

26. Effectiveness of Zero Pricing on Demand Shifting of Residential Customers

**Location:** On-Line Presentation **Date:** September 7, 2020

**Sponsor:** IEEE-IAS Power and Energy Seminar

27. Virtual Inertia from DFIG and Inverter-based Renewable Resources

Location: Zhudong Township, Taiwan

**Date:** February 14, 2020

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

28. Battery Storage Technologies & Their Potential Applications in Power Systems

**Location:** Taipei, Taiwan **Date:** February 11, 2020

**Sponsor:** System Planning Department, Taiwan Power Company, Taiwan

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29. Fundamental of Power Systems

Location: Kaohsiung, Taiwan ROC

Date: December 24, 2019

**Sponsor:** National Sun Yat Sen University

30. Battery Storage Technologies & Their Potential Applications in Power Systems

**Location:** Zhudong Township, Taiwan

Date: December 24, 2019

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

31. Ancillary Services for High Renewable Penetration Systems

**Location:** Zhudong Township, Taiwan

Date: December 23, 2019

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

32. Applications of the Energy Storage Systems in the US

**Location:** Taipei, Taiwan

**Date:** November 29, 2019

**Sponsor:** Taiwan Research Institute

33. Battery Storage Technologies & Their Potential Applications in Power Systems

Location: Taipei, Taiwan

**Date:** November 29, 2019

**Sponsor:** Taiwan Research Institute

34. Wind Generation Development and Operation in ERCOT

Location: Taipei, Taiwan

Date: September 4, 2019

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

35. Effectiveness of Zero Pricing in Demand Response at Residential Level

**Location:** Zhudong Township, Taiwan

**Date:** September 3, 2019

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

36. Sub-Synchronous and Super-Synchronous Resonance in the Power Systems

**Location:** Zhudong Township, Taiwan

**Date:** September 2, 2019

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

37. DER initiatives in US and Europe

**Location:** Zhudong Township, Taiwan

**Date:** September 2, 2019

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

38. Effectiveness of Zero Pricing in Demand Response at Residential Level

Location: Atlanta, GA

**Date:** August 7, 2019

**Sponsor:** IEEE-PES General Meeting

39. Arc Flash Hazards on External Faults of Battery Storage Systems

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**Location:** Atlanta, GA **Date:** August 7, 2019

**Sponsor:** IEEE-PES General Meeting

40. Wind-Hybrid Energy Storage System for Optimal Generation Scheduling

**Location:** Atlanta, GA **Date:** August 7, 2019

**Sponsor:** IEEE-PES General Meeting

41. Energy Internet for MicroGrid and Virtual Power Plant (VPP) Development

**Location:** Chengdu, China **Date:** May 22, 2019

**Sponsor:** Innovative Smart Grid Technologies-Asia

42. Keynote: Arc Flash Hazard and Electrical Safety-The New Revision of IEEE Std. 1584-2018

**Location:** Chengdu, China **Date:** May 22, 2019

**Sponsor:** Innovative Smart Grid Technologies-Asia

43. Battery Storage Technologies & Their Potential Applications in Power Systems

**Location:** Kuala Lumpur, Malaysia

**Date:** April 11, 2019

**Sponsor:** Multi-Media University, Kuala Lumpur, Malaysia

44. Demand Response in ERCOT Market

**Location:** Wuhan, China **Date:** March 11, 2019

**Sponsor:** Huazhong University of Science and Technology

45. Tutorial: Introduction to the 2018 Edition of IEEE 1584-Guide for Performing Arc-

Flash Hazard Calculations **Location:** Jacksonville, FL **Date:** March 5, 2019

**Sponsor:** IEEE-IAS, Electrical Safety Workshop

46. Keynote: Arc Flash Hazard and Electrical Safety-The New Revision of IEEE Std. 1584-

2018

**Location:** College Station, TX **Date:** February 7, 2019

**Sponsor:** Texas Power and Energy Conference

47. Battery Storage Technologies & Their Potential Applications in Power Systems

**Location:** Amman, Jordan **Date:** January 27, 2019

**Sponsor:** IEEE-IAS, Chapter Meeting

48. Trend of Smart Grid Development

**Location:** Amman, Jordan **Date:** January 27, 2019

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**Sponsor:** IEEE-IAS, Chapter Meeting

49. Keynote: Arc Flash Hazard and Electrical Safety-The New Revision of IEEE Std. 1584-2018

**Location:** Huzhou, China

Date:

December 15, 2018 Sponsor: IEEE-IAS (The 1st IEEE Student Conference on Electric Machines and

Systems)

50. Seamless Integration of Renewable Energy

**Location:** Kansas State University, Manhattan, KS

Date: November 30, 2018

**Sponsor:** IEEE-IAS, Distinguished Lecturer

51. Arc Flash Hazard and Electrical Safety-The New Revision of IEEE Std. 1584-2018

**Location:** San Jose, Costa Rica Date: November 13, 2018

**Sponsor:** IEEE Standards Association

52. Demand Response – An Assessment of Load Participation in the ERCOT Market

Location: Taipei, Taiwan Date: October 26, 2018

**Sponsor:** Taiwan Research Institute, Taiwan

53. Power Systems 100

Location: Kaohsiung, Taiwan October 25, 2018 Date:

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

54. Strategy of the Priority Renewable Dispatch of Existing and Future Challenges in the

**USA** 

Location: Taipei, Taiwan October 23, 2018 Date:

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

55. Applications of the Energy Storage Systems in the US

**Location:** Taipei, Taiwan Date: October 22, 2018

**Sponsor:** Industrial Technology Research Institute (ITRI), Taiwan

56. Arc Flash Hazards and Electrical Safety

**Location:** Austin, TX

Date: October 11, 2018

**Sponsor:** Austin Energy, City of Austin

57. Battery Storage Technologies & Their Potential Applications in Power Systems

**Location:** Frisco, TX

September 5, 2018 Date:

**Sponsor:** Transmission & Substation Design & Operation Symposium (TSDOS)

58. Battery Storage Technologies & Their Potential Applications in Power Systems

Wei-Jen Lee Page 60 of 106 **Location:** Budapest, Hungary **Date:** August 16, 2018

**Sponsor:** IEEE-IAS, Distinguished Lecturer

59. Dynamic Equivalent Model Development for Large Scale Wind Farm

**Location:** Budapest, Hungary **Date:** August 16, 2018

**Sponsor:** IEEE-IAS, Distinguished Lecturer

60. Virtual Power Plant (VPP) Control Algorithm for Optimal Operations of Regional PEV

Charging Infrastructure **Location:** Portland, OR **Date:** August 7, 2018

**Sponsor:** IEEE-PES, General Meeting

61. Battery Storage Technologies & Their Potential Applications in Power Systems

**Location:** Shanghai, PR China

**Date:** July 20, 2018

**Sponsor:** Shanghai University of Electric Power

62. Grid Level Power Electronics and Electrical Safety

**Location:** Albuquerque, NM **Date:** July 18, 2018

**Sponsor:** Sandia National Laboratory

63. Battery Storage Technologies & Their Potential Applications in Power Systems

**Location:** Webinar **Date:** July 12, 2018 **Sponsor:** IEEE Smart Grid

64. Battery Storage Technologies & Their Potential Applications in Power Systems

Location: Hsinchu, Taiwan ROC

**Date:** May 21, 2018

**Sponsor:** Industrial Technology Research Institute (ITRI)

65. Battery Storage Technologies & Potential Applications in Power Systems

**Location:** Taipei, Taiwan ROC

**Date:** April 26, 2018

**Sponsor:** Taiwan Power Company

66. Trend of the Smart Grid Development

**Location:** Yilan, Taiwan ROC **Date:** April 23, 2018

**Sponsor:** National Yilan University/IEEE IAS Distinguished Lecturer Program

67. Seamless Integration of Renewable Energy

Location: Kaohsiung, Taiwan ROC

**Date:** April 20, 2018

Sponsor: National Sun Yat Sen University/IEEE IAS Distinguished Lecturer

Program

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68. Trend of the Smart Grid Development

**Location:** Jinan, PR China **Date:** November 23, 2017

**Sponsor:** Shandong University//IEEE IAS Distinguished Lecturer Program

69. Seamless Integration of Renewable Energy

**Location:** Beijing, PR China **Date:** November 20, 2017

Sponsor: North China Electric Power University/IEEE IAS Distinguished Lecturer

Program

70. Seamless Integration of Renewable Energy

**Location:** Lima, Peru

**Date:** September 23, 2017

Sponsor: Universidad Nacional del Callao/IEEE IAS Distinguished Lecturer

Program

71. Arc Flash Hazard and Electrical Safety

Location: Junin, Peru

**Date:** September 21, 2017

**Sponsor:** Universidad Continental de Ciencias e Ingenieria/IEEE IAS Distinguished

Lecturer Program

72. Arc Flash Model Development

**Location:** Calgary, Canada **Date:** September 15, 2017

**Sponsor:** IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

73. Utility Deregulation and the Introduction of ERCOT Market

**Location:** Frisco, TX

**Date:** September 6, 2017

**Sponsor:** Transmission and Substation Design and Operation Symposium, UTA

74. Smart Grid Development in the US

**Location:** Aalborg, Denmark **Date:** August 13, 2017 **Sponsor:** Aalborg University

75. The Impact of Time of Use (TOU) Rate Structure on The Consumption Pattern of The

Residential Customers
Location: Chicago, IL
Date: July 19, 2017

**Sponsor:** 2017 IEEE PES General Meeting

76. Smart Grid Applications on Industrial and Commercial Power Systems

**Location:** Milan, Italy **Date:** June 7, 2017

**Sponsor:** 2017 IEEE EEEIC and 1st I&CPS Europe

77. Arc Flash Hazard and Electrical Safety

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**Location:** Milan, Italy **Date:** June 6, 2017

**Sponsor:** 2017 IEEE EEEIC and 1st I&CPS Europe

78. Optimal Operation of PEV Charging Station through Energy Internet

**Location:** Shanghai, PR China **Date:** May 27, 2017

Sponsor: Shanghai Forum/Fudan University

79. PMU Based Dynamic Equivalent Model Development for Large Scale Wind Farm

Location: Huazhong University of Science and Technology, Wuhan Hubei PR China

**Date:** May 23, 2017

Sponsor: IAS Hunan Chapter, Student Branch at Hunan University/IEEE IAS

Distinguished Lecturer Program

80. Seamless Integration of Renewable Energy

Location: Changsha University of Science and Technology, Changsha Hunan PR

China

**Date:** May 18, 2017

Sponsor: IAS Hunan Chapter, Student Branch at Hunan University/IEEE IAS

Distinguished Lecturer Program

81. Trend of the Smart Grid Development

Location: Hunan University, Changsha Hunan PR China

**Date:** May 18, 2017

Sponsor: IAS Hunan Chapter, Student Branch at Hunan University/IEEE IAS

Distinguished Lecturer Program

82. Trend of the Smart Grid Development

**Location:** Toronto, Canada **Date:** May 12, 2017

**Sponsor:** IEEE IAS Toronto Chapter/IEEE IAS Distinguished Lecturer Program

83. Trend of the Smart Grid Development

**Location:** Detroit, MI **Date:** April 12, 2017

Sponsor: Southeastern Michigan Joint PES/IAS Chapter/IEEE IAS Distinguished

Lecturer Program

84. Utility Deregulation and the Introduction of ERCOT

**Location:** Taipei, Taiwan ROC **Date:** March 21, 2017

**Sponsor:** Taiwan Power Company

85. Trend of the Smart Grid Development

**Location:** Tainan, Taiwan ROC **Date:** March 20, 2017

**Sponsor:** National Cheng Kung University

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86. IEEE Industry Application Society and the Smart Grid Applications on Industrial and Commercial Power Systems Department

**Location:** Chiayi, Taiwan ROC **Date:** March 17, 2017

**Sponsor:** National Chung Cheng University

87. Trend of the Smart Grid Development

**Location:** Tainan, Taiwan ROC **Date:** March 16, 2017

**Sponsor:** Kun Shan University of Science and Technology

88. Dynamic Equivalent Model Development for Large Scale Wind Farm

Location: Nanjing, PR ChinaDate: December 28, 2016Sponsor: NARI Group Corporation

89. The Challenges and Strategies of Interconnecting Large Scale Wind Farms to the Grid

**Location:** Inner Mongolia **Date:** December 27, 2016

**Sponsor:** Inner Mongolia Electrical Company

90. The IEEE Fellow Program & What Improves a Nomination

**Location:** Wuhan, Hubei PR China

**Date:** October 26, 2016

**Sponsor:** Huazhong University of Science and Technology

91. Utility Deregulation and the Introduction of ERCOT

**Location:** Wuhan, Hubei PR China

**Date:** October 25, 2016

**Sponsor:** Huazhong University of Science and Technology

92. Smart Grid Applications on Industrial and Commercial Power Systems Department

**Location:** Wuhan, Hubei PR China

**Date:** October 24, 2016

**Sponsor:** Huazhong University of Science and Technology

93. Arc Flash Hazard and Electrical Safety

**Location:** Washington DC **Date:** September 28, 2016 **Sponsor:** Sandia National Lab.

94. FTR LMP and Loss Allocation

**Location:** Frisco, TX

**Date:** September 7, 2016

**Sponsor:** Transmission & Substation Design & Operation Symposium (TSDOS)

95. Power Delivery System - Transformer and Transmission Lines

**Location:** Frisco, TX

**Date:** September 7, 2016

**Sponsor:** Transmission & Substation Design & Operation Symposium (TSDOS)

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96. IEEE Industry Application Society and the Smart Grid Applications on Industrial and

Commercial Power Systems Department

**Location:** Chiayi, Taiwan ROC **Date:** March 17, 2017

**Sponsor:** National Chung Cheng University

97. Trend of the Smart Grid Development

**Location:** Tainan, Taiwan ROC **Date:** March 16, 2017

**Date:** March 10, 2017

**Sponsor:** Kun Shan University of Science and Technology

98. Dynamic Equivalent Model Development for Large Scale Wind Farm

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101. Utility Deregulation and the Introduction of ERCOT

Location: Wuhan, Hubei PR China

**Date:** October 25, 2016

**Sponsor:** Huazhong University of Science and Technology

102. Smart Grid Applications on Industrial and Commercial Power Systems Department

**Location:** Wuhan, Hubei PR China

**Date:** October 24, 2016

**Sponsor:** Huazhong University of Science and Technology

103. Arc Flash Hazard and Electrical Safety

**Location:** Washington DC **Date:** September 28, 2016 **Sponsor:** Sandia National Lab.

104. FTR LMP and Loss Allocation

**Location:** Frisco, TX

**Date:** September 7, 2016

**Sponsor:** Transmission & Substation Design & Operation Symposium (TSDOS)

105. Power Delivery System - Transformer and Transmission Lines

**Location:** Frisco, TX

**Date:** September 7, 2016

**Sponsor:** Transmission & Substation Design & Operation Symposium (TSDOS)

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106. Security Constraint Unit Commitment

**Location:** Taipei, Taiwan **Date:** August 16, 2016

**Sponsor:** Taiwan Power Company

107. Financial Transmission Rights, Locational Marginal Price, and Congestion

Management

**Location:** Taipei, Taiwan **Date:** August 15, 2016

**Sponsor:** Taiwan Power Company

108. Detail Analysis of Smart Meter Data to Improve the Accuracy of Load Forecasting

Design

**Location:** Boston, MA **Date:** July 20, 2015

**Sponsor:** IEEE-PES General Meeting

109. Applying the VPP concept for Regional Optimization of Level 3 Charging Station

Design

**Location:** Boston, MA **Date:** July 19, 2015

**Sponsor:** IEEE-PES General Meeting

110. Smart Grid Applications on Industrial and Commercial power Systems

**Location:** Shanghai, China **Date:** July 8, 2016

**Sponsor:** Shanghai University of Electric Power

111. The Challenges and Strategies of Interconnecting Large Scale Wind

**Location:** Beijing, China **Date:** June 27, 2016

**Sponsor:** Electric Power Research Institute of China (EPRI China)

112. The Opportunities and Challenges of Utility Deregulation

**Location:** Beijing, China **Date:** June 13, 2016

**Sponsor:** North China Electric Power University

113. The Introduction of ERCOT Market

**Location:** Beijing, China **Date:** June 6, 2016

**Sponsor:** North China Electric Power University

114. Arc Flash - from Field Test to Empirical Method

**Location:** Irvine, CA **Date:** April 18, 2016

**Sponsor:** ETAP User Group Meeting

115. PMU Based Dynamic Equivalent Model Development for Large Scale Wind Farm

Location: Chengdu, China

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**Date:** January 5, 2016

**Sponsor:** Southwest Jiaotong University

116. Trend of the Smart Grid Developmen

**Location:** Chengdu, China **Date:** January 4, 2016

**Sponsor:** University of Electronic Science and Technology of China

117. Natural Gas

**Location:** Beijing, China **Date:** December 23, 2015

**Sponsor:** North China Electric Power University

118. Trend of Smart Grid Development

**Location:** Kuala Lumpur, Malaysia **Date:** November 30, 2015 **Sponsor:** Multimedia University

119. PMU Based Dynamic Equivalent Model Development for Large Scale Wind Farm

**Location:** Arlington, TX **Date:** October 22, 2015

**Sponsor:** Metrocon

120. Arc Flash Hazard and Electrical Safety

**Location:** Frisco, TX

**Date:** September 9, 2015

**Sponsor:** Transmission & Substation Design & Operation Symposium (TSDOS)

121. Internet of Things, Energy Internet, and Virtual Power Plant

**Location:** Denver, CO **Date:** July 28, 2015

**Sponsor:** IEEE-PES General Meeting (Super Session)

122. Web-Based Real-time Monitoring System to Enhance the Market Participation of an Industrial Power System

**Location:** Denver, CO **Date:** July 27, 2015

**Sponsor:** IEEE-PES General Meeting (Panel Session)

123. Infrastructure Development for Transportation Electrification

**Location:** Denver, CO **Date:** July 27, 2015

**Sponsor:** IEEE-PES General Meeting (Panel Session)

124. Trend of Smart Grid Development

**Location:** Macau, China **Date:** June 18, 2015

**Sponsor:** Office for the Development of Energy Sector, Macau, China

125. Arc Flash Hazard and Electrical Safety

**Location:** Arlington, TX

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Date: February 20, 2015 **Sponsor:** Rotary Club, Arlington

126. The Procedure to Develop an IEEE Standard

Location: Beijing, China Date: January 6, 2015

Sponsor: North China Electric Power University

127. Trend of the Smart Grid Development

Location: Macau, China Date: December 17, 2014 **Sponsor:** University of Macau

128. Web-Based Real-time Monitoring System to Enhance the Market Participation of an

**Industrial Power System** Location: Long Beach, CA Date: November 24, 2014

**Sponsor:** California State University, Long Beach (Keynote speaker at IEEE Green

Energy and Systems Conference)

129. Integration of Wind Generation into Smart Grid

Location: Wuhan, China Date: November 3, 2014

**Sponsor:** HuaZhong University of Science and Technology

130. Arc Flash and Electrical Safety

**Location:** Arlington, TX October 2, 2014 Date: **Sponsor:** Metrocon, IEEE

131. Seamless Integration of Renewable Energy

**Location:** Dallas, TX

September 9, 2014 Date:

**Sponsor:** Transmission & Substation Design & Operation Symposium (TSDOS)

132. New Arc Flash Calculator

**Location:** San Francisco, CA Date: September 6, 2014

**Sponsor:** IEEE-IAS PCIC, P1584WG Meeting

133. Big Data and Its Applications in Power System

**Location:** Beijing, China Date: June 27, 2014

**Sponsor:** North China Electric Power University

134. Smart Grid Related Research

**Location:** Prairie View, TX Date: March 6, 2014

**Sponsor:** PVAMU

135. Update on IE and I<sub>arc</sub> Model Development

Wei-Jen Lee Page 68 of 106 **Location:** San Diego, CA **Date:** February 4, 2014

Sponsor: IEEE-IAS ESW, P1584WG Meeting

136. Trend of Smart Grid Development Location: Guangzhou, China Date: December 23, 2013

**Sponsor:** China Southern Power Grid Company Limited

137. Seamless Integration of Wind Generation into Smart Grid

**Location:** Guangzhou, China **Date:** December 23, 2013

**Sponsor:** South China University of Technology

138. Competitive Retail Market

**Location:** Beijing, China **Date:** December 21, 2013

**Sponsor:** North China Electric Power University

139. Design of Wholesale Wheeling Charges

**Location:** Taipei, Taiwan ROC **Date:** November 27 – 29, 2013 **Sponsor:** Taiwan Power Company

140. Integration of Wind Generation into Smart Grid

**Location:** College Station, TX **Date:** October 23, 2013

**Sponsor:** Electric Power and Power Electronics Institute, TAMU

141. Implications of the Changing Research Enterprise

**Location:** Austin, TX **Date:** October 22, 2013

**Sponsor:** IEEE

142. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Chicago, TX

**Date:** September 23, 2013

**Sponsor:** IEEE-IAS PCIC, P1584WG Meeting

143. Integration of Wind Generation into Smart Grid

**Location:** Macau, China **Date:** September 3, 2013

**Sponsor:** International Forum for Clean Energy

144. Price Structure of the Retail Market

**Location:** Beijing, China **Date:** July 6, 2013

**Sponsor:** North China Electric Power University

145. Rules and Regulations for Wheeling Charges

**Location:** Taipei, Taiwan ROC

Wei-Jen Lee Page 69 of 106

**Date:** May 27 - 30, 2013 **Sponsor:** Taiwan Power Company

146. Arc Flash and Electrical Safety **Location:** College Station, TX

**Date:** April 9, 2013 **Sponsor:** Relay Conference

147. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Dallas, TX **Date:** March 18, 2013

**Sponsor:** IEEE-IAS PCIC, P1584WG Meeting

148. Challenges and Opportunities of Smart Grid Development

**Location:** Hong Kong **Date:** October 31, 2012

**Sponsor:** The University of Hong Kong

149. Challenges and Opportunities of Smart Grid Development

Location: Kaohsiung, Taiwan ROC

**Date:** October 21, 2012 **Sponsor:** I-Shou University

150. Update on Incident Energy Calculation

**Location:** New Orleans, LA **Date:** September 21, 2012

**Sponsor:** IEEE-IAS PCIC, P1584WG Meeting

151. Challenges and Opportunities of Smart Grid Development

**Location:** Wuhan, China **Date:** August 21, 2012

**Sponsor:** Huazhong university of Science and Technology

152. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Portland, OR **Date:** June 18, 2012

**Sponsor:** IEEE-IAS Pulp and Paper Annual Conference

153. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Chicago, IL **Date:** June 5, 2012

**Sponsor:** S&C Technology Update

154. Seamless Integration of Wind Generation into Smart grid

**Location:** Beijing PRC **Date:** May 30, 2012

**Sponsor:** Electric Power Research Institute of North China Electric Power Company

155. Trend of Smart grid Development

**Location:** Beijing PRC **Date:** May 27, 2012

Wei-Jen Lee Page 70 of 106

**Sponsor:** North China Electric Power University

156. Arc Flash and Electrical Safety

**Location:** Houston, TX **Date:** March 7, 2012

**Sponsor:** IEEE PES, Houston Chapter

157. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Daytona Beach, FL **Date:** January 29, 2012

**Sponsor:** IEEE-IAS Electrical Safety Workshop

158. Trend of the Smart Grid Development and Potential Applications of AMI

**Location:** Taipei, Taiwan **Date:** December 29, 2011

**Sponsor:** Tatung University, Taipei, Taiwan

159. Trend of Smart grid Development

**Location:** Taipei, Taiwan **Date:** December 19, 2011

**Sponsor:** Ministry of Economics, Taiwan

160. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Orlando, FL **Date:** October 10, 2011

**Sponsor:** IEEE-IAS Annual Conference

161. Arc Flash and Electrical Safety

**Location:** Fargo, NC

Date: September 27, 2011

**Sponsor:** North Dakota State University

162. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Toronto, ON, Canada **Date:** September 17, 2011 **Sponsor:** IEEE-IAS PCIC

163. Challenges, Solutions, and Opportunities of Smart grid Development

**Location:** Beijing PRC **Date:** July 11, 2011

**Sponsor:** North China Electric Power University

164. Arc Flash and Electrical Safety

Location: Wuhan, Hubei PRC

**Date:** July 2, 2011

**Sponsor:** Huazhong University of Science and Technology

165. Model Verification of Generation Systems in ERCOT

**Location:** Tainan, ROC **Date:** June 30, 2011

Wei-Jen Lee Page 71 of 106

**Sponsor:** National Cheng Kung University

166. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Nashville, TN **Date:** June 20, 2011

**Sponsor:** IEEE-IAS Pulp and Paper Annual Conference

167. Arc Flash and Electrical Safety

**Location:** Fort Worth, TX **Date:** June 21, 2011

**Sponsor:** IEEE PES, Dallas/Fort Worth Chapter

168. Investigating of Possible Harmonic Emissions of a Commercial Wind Farm

**Location:** Fort Worth, TX **Date:** March 15, 2011

**Sponsor:** IEEE PES, Dallas/Fort Worth Chapter

169. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Toronto, Canada **Date:** January 27, 2011

**Sponsor:** IEEE-IAS Electrical Safety Workshop

170. Update on IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Bahrain

Date: December 19, 2010

**Sponsor:** EnergyCon 2010, IEEE International Energy Conference and Exhibition

171. Smart Grid Development

**Location:** Taipei, Taiwan ROC **Date:** November 8, 2010

**Sponsor:** CIE-USA. New-generation Green Energy Technology, Modern Engineering

& Technology Seminar (METS)

172. Revision and Developing of Arc Flash Standards

Location: Taipei, Taiwan ROC

Date: November 4, 2010

Sponsor: Tatung University

173. Interconnection of PV into Utility Grid

Location: Taipei, Taiwan ROCDate: November 3, 2010Sponsor: Taiwan Power Company

174. Parameter Estimation of Generation Systems in ERCOT

Location: Taipei, Taiwan ROC

Date: November 2, 2010

Sponsor: Taiwan Power Company

175. Progress Report: IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** Savannah, GA **Date:** October 25, 2010

Wei-Jen Lee Page 72 of 106

**Sponsor:** NFPA 70E Committee Meeting

176. Progress Report: IEEE/NFPA Arc Flash Phenomena Collaborative Research Project

**Location:** San Antonio, TX **Date:** September 18, 2010

**Sponsor:** IEEE Std. 1584 Working Group Meeting (PCIC Annual Conference)

177. Parameter Estimation of Generation Systems in ERCOT

Location: Jinan, Shandong, PR China

**Date:** May 30, 2010

**Sponsor:** Shandong University

178. Wind Generation: A Prominent Form of Renewable Energy

**Location:** Xian, PR China **Date:** May 25, 2010

**Sponsor:** Xian Jiao Tong University

179. Locational Marginal Price and Nodal Price Calculation

**Location:** Beijing, PR China **Date:** January 12, 2010

**Sponsor:** Electric Power Research Institute – China

180. Smart Appliances

**Location:** Beijing, PR China **Date:** January 11, 2010

**Sponsor:** North China Electric Power University

181. Deregulated Power Market in the US

**Location:** Beijing, PR China **Date:** January 8, 2010

**Sponsor:** North China Electric Power University

182. Impact of Wind Generation on the Power System Operation

**Location:** Taipei, Taiwan **Date:** December 2, 2009

**Sponsor:** National Taipei University of Technology

183. Roadmap for Smart Grid Development in Taiwan

Location: Taipei, TaiwanDate: November 30, 2009Sponsor: Taiwan Power Company

184. Seamless Integration of Wind Generation into Smart Grid

**Location:** Taoyuan, Taiwan **Date:** November 28, 2009

**Sponsor:** 30<sup>th</sup> Electric Power Symposium (Keynote Speech)

185. The Opportunities and Challenges of Smart Grid Development

Location: Taipei, Taiwan

Date: November 27, 2009

Sponsor: Tatung University

Wei-Jen Lee Page 73 of 106

186. Smart Grid Development

**Location:** Taoyuan, Taiwan **Date:** November 26, 2009

**Sponsor:** Institute of Nuclear Energy Research

187. Enabling Technologies for Customer Demand and Budget Management in the

Deregulated Environment

Location: Hsinchu, Taiwan

Date: November 25, 2009

**Sponsor:** National Science and Technology Program for System-on-Chip

188. Smart Grid Development in the US

**Location:** Nanjing, China **Date:** November 2009

**Sponsor:** Nanjing Normal University

189. Seamless Integration of Wind Generation into Smart Grid

**Location:** Wuhan, China **Date:** October 2009

**Sponsor:** Huazhong University of Science and Technology

190. Opportunities and Challenges of Wind Generation Development

**Location:** Taipei, Taiwan **Date:** June 2008

**Sponsor:** Tatung University

191. Demand Response Program in the US

Location: Kaohsiung, Taiwan

**Date:** March 2008

**Sponsor:** National Sun Yat San University

192. Wind Generation: A Prominent Form of Renewable Energy

**Location:** Arlington, TX **Date:** January 2008 **Sponsor:** UTA Library

193. The Trend of the Electric Utility Industry

**Location:** Tainan, Taiwan **Date:** October 2007

**Sponsor:** National Science Council

194. Wind Generation and its Impact on the System Operation

**Location:** Kaohsiung, Taiwan

**Date:** October 2007

**Sponsor:** National Sun Yat San University

195. Arcing Fault Detection of Motor Coil and Switchgear

**Location:** Tainan, Taiwan **Date:** October 2007

**Sponsor:** National Cheng Kung University

Wei-Jen Lee Page 74 of 106

196. Generation Planning and Operation Strategies in the SPP-EIS Market

**Location:** Taipei, Taiwan **Date:** August 2007

**Sponsor:** Taiwan Power Company

197. Generation Planning and Operation Strategies in the SPP-EIS Market

**Location:** Wuhan, China **Date:** June 2007

**Sponsor:** HuaZhong University of Science and Technology

198. Wind Generation Capacity Forecasting

**Location:** Jinan, China **Date:** June 2007

**Sponsor:** Shandong University

199. Demand Response Programs

**Location:** Taipei, Taiwan **Date:** April 2007

**Sponsor:** Taiwan Power Company

200. Wind Generation Capacity Forecasting for Unit Commitment Scheduling

**Location:** Shing Ju, Taiwan **Date:** December 2006

**Sponsor:** National Tsing Hua University.

201. Wheeling Charge under Deregulated Environment

**Location:** Taipei, Taiwan **Date:** August 21, 2006

**Sponsor:** Taiwan Power Company

202. Distributed Generation and Power Quality

**Location:** Chung-Li, Taiwan **Date:** March 15, 2006

**Sponsor:** Chung Yuan Christian University

203. Distributed Generation and Its Impact on the Power Systems

**Location:** Tainan, Taiwan **Date:** March 14, 2006

**Sponsor:** National Cheng Kung University

204. Intellectual Property Policies to Support the Industry-University Collaboration

**Location:** Taipei, Taiwan **Date:** January 13, 2006

**Sponsor:** National Taiwan University of Science and Technology

205. Demand Response Programs in the United States

**Location:** Taipei, Taiwan **Date:** January 11, 2006

**Sponsor:** Taiwan Power Research Institute

206. Development and Deployment of AMR Technologies

Wei-Jen Lee Page 75 of 106

**Location:** Taipei, Taiwan **Date:** January 11, 2006

**Sponsor:** Taiwan Power Research Institute

207. Summary of SPP Protocol

**Location:** Bangkok, Thailand **Date:** October 28, 2005

**Sponsor:** Center of Excellence, Chulalongkorn University, Bangkok, Thailand

208. Energy Imbalance Service (EIS) of SPP Market

Location: Taipei, TaiwanDate: September 28, 2005Sponsor: Taiwan Power Company

209. Trend of Distributed Generation and Renewable Energy

**Location:** Bangkok, Thailand **Date:** March 14, 2005

**Sponsor:** Provincial Electricity Authority, Thailand

210. System Impact Study for the Interconnection of Wind Generation and Utility System

**Location:** Taipei, Taiwan **Date:** March 7-11, 2005

**Sponsor:** Taiwan Power Company

211. Special Protection System for Taipower System

Location: Taipei, Taiwan

**Date:** November 17-18, 2004

**Sponsor:** Department of Energy, Taiwan

212. The Trend of Utility Deregulation

**Location:** Henan, China **Date:** August 18, 2004

**Sponsor:** Electric Power of Henan, Zhengzou, Henan.

213. Utility Deregulation – The Texas Way

**Location:** Beijing, China **Date:** August 16, 2004

**Sponsor:** North China Electric Power University

214. The Opportunity and Challenge of Utility Deregulation

**Location:** Beijing and Shandong, China

**Date:** March 15-19, 2004

Sponsor: North China Electric Power University, Northeast China Institute of

Electric Power Engineering, Shandong University, and China EPRI

215. Artificial Neural Networks-based Wind Generation Forecasting for Unit Commitment Scheduling

**Location:** Taipei, Taiwan **Date:** December 22, 2003 **Sponsor:** Taiwan Power Company

Wei-Jen Lee Page 76 of 106

216. Artificial Neural Networks-based Short Term Load Forecasting for Unit Commitment Scheduling

Location: Taipei, TaiwanDate: December 25, 2002Sponsor: Taiwan Power Company

217. Robust Voltage Sags and Swells Detection Algorithms

Location: Taipei, TaiwanDate: December 25, 2002Sponsor: Taiwan Power Company

218. Utility Deregulation, The Texas Way

Location: Taipei, TaiwanDate: December 24, 2002Sponsor: Taiwan Power Company

219. Wheeling Charge Calculation

**Location:** Bangkok, Thailand **Date:** December 18, 2002

**Sponsor:** Center of Excellence, Chulalongkorn University, Bangkok, Thailand

220. Deregulation Practices in PJM, CAISO, and ERCOT Systems

**Location:** Bangkok, Thailand **Date:** December 17, 2002

**Sponsor:** National Energy Policy Office of Thailand

221. The Opportunities of Utility Deregulation

**Location:** Ngee Ann Polytechnic, Singapore

**Date:** May 21, 2002

**Sponsor:** Ngee Ann Polytechnic, Singapore

222. Special Designed Static Var Compensator for Generator-Turbine Negative Sequence

Current Protection

**Location:** Taipei, Taiwan **Date:** March 15, 2002

**Sponsor:** Power Research Institute, Taiwan Power Company

223. Set-Top Box for Automatic Meter Reading and Demand Management

**Location:** Taipei, Taiwan **Date:** March 14, 2002

**Sponsor:** Power Research Institute, Taiwan Power Company

224. Utility Deregulation

**Location:** Kaohsiung, Taiwan **Date:** March 11, 2002

**Sponsor:** National Sun Yet-Sen University

225. Point-to-Point, Flowgate, and Locational Marginal Price

**Location:** Anadarko, OK **Date:** December 9, 2001

Wei-Jen Lee Page 77 of 106

**Sponsor:** Western Farmer Electric Coop

226. Special Protection and Prevention Equipment to Improve the Reliability of the

Taipower System Operation

Location: Taipei, Taiwan

Date: November 23, 2000

**Sponsor:** Taiwan Power Company

227. Neural Network Based Short-Term Load Forecasting

**Location:** Saudi Arabia

**Date:** October 21 - October 25, 2000 **Sponsor:** SCECO-East (Saudi Arabia)

228. Understanding the Unbundling Services

**Location:** Austin, Texas **Date:** August 15, 2000

**Sponsor:** Texas Coalition of Cities for Utility Issues

229. Programmable Logic Controllers

**Location:** Monterrey, Mexico **Date:** July 2 - July 5, 2000

**Sponsor:** Federal Power Commission, Mexico

230. Wheeling Charge Calculation Methods Under a Deregulated Environment

**Location:** Taipei, Taiwan **Date:** May 24, 2000

**Sponsor:** Taiwan Power Company

231. Design Considerations of an Integrated Measurement, Monitoring, Control, and

Protection System

**Location:** Taipei, Taiwan **Date:** May 23, 2000

**Sponsor:** Taiwan Power Company

232. Modeling and Analysis of Modern Power Systems

**Location:** Arlington, TX

**Date:** September 13 – December 10, 1999 **Sponsor:** SCECO-South (Saudi Arabia)

233. Power Systems Protection

Location: Arlington, TX

**Date:** March 1 – December 4, 1999 **Sponsor:** SCECO-Central (Saudi Arabia)

234. 380, 230, 132 kV GIS and Metalclad Switchgear Operation and Maintenance

**Location:** Arlington, TX

**Date:** March 1 – December 4, 1999 **Sponsor:** SCECO-Central (Saudi Arabia)

235. Modeling and Analysis of Modern Power Systems. (1987 through 1999)

**Location:** Arlington, TX

Wei-Jen Lee Page 78 of 106

**Period:** Two (2) Weeks Per Year

**Sponsor:** Energy Systems Research Center/UTA

236. Power Quality Forum

**Location:** Austin, TX

**Date:** October 30, 1998

**Sponsor:** Austin Energy Co., Austin, Texas

237. Opportunity and Challenging of Utility Deregulation (Panel Discussion)

**Location:** Edmonton, Canada

**Date:** May 6, 1998

**Sponsor:** IEEE-IAS, I&CPS

238. Power Systems Analysis

Location: Taipei, Taiwan

**Date:** December 17 – 31, 1997

**Sponsor:** Formosa Petrochemical Company

239. Microprocessor Based System Protection, Monitoring, and Control

**Location:** Singapore

**Date:** December 15 – 19, 1997

**Sponsor:** Singapore Electrical Company. Singapore

240. Relay Testing Workshop

Location: Arlington, TX

**Date:** One Week per year

**Sponsor:** Energy Systems Research Center (1993 through 1997)

241. Utility Deregulation and Its Potential Impact on End Users

**Location:** Dallas, TX

**Date:** August 8, 1997

Sponsor: North Texas Small Business Development Council and Electronic

Protection & Controls Co.

242. Normal and Abnormal Operations of an Electrical Power System

**Location:** Arlington, TX

**Date:** June 9 - August 8, 1997

**Sponsor:** SCECO-Central (Saudi Arabia)

243. Power Quality - Utility Perception

**Location:** Electricity Generating Authority of Thailand (EGAT), Bangkok, Thailand

**Date:** June 4, 1997

**Sponsor:** Power Management Institute, International Inc.

244. Power Systems Protection and Microcomputer Based Relay

**Location:** Bangkok, Thailand

**Date:** June 2 - June 6, 1997

**Sponsor:** Power Management Institute, International Inc. Bangkok, Thailand

245. Power Quality

**Location:** Bangkok, Thailand

Wei-Jen Lee Page 79 of 106

**Date:** May 26 - May 30, 1997

**Sponsor:** Power Management Institute, International Inc. Bangkok, Thailand

246. Power Systems Analysis

Location: Bangkok, Thailand

**Date:** January 13 - January 17, 1997

**Sponsor:** Power Management Institute, International Inc. Bangkok, Thailand

247. Power Systems Operation, Dispatching, and Protection

**Location:** Arlington, TX

**Date:** June 17 - August 16, 1996 **Sponsor:** SCECO-Central (Saudi Arabia)

248. Power Quality and End Users

**Location:** Dallas, TX

**Date:** April 26, 1996 and July 26, 1996

Sponsor: North Texas Small Business Development Council and Electronic

Protection & Controls Co.

249. Deregulation and Real/Reactive Power Wheeling

**Location:** Arlington, TX

**Date:** August 21 - August 25, 1995 **Sponsor:** Energy Systems Research Center

250. A Physical Laboratory for Relay Testing

Location: Dallas, TXDate: August 10, 1995Sponsor: AVO-International

251. Applications of Programmable Logic Controller (PLC)

**Location:** Arlington, TX

**Date:** August 7 - August 11, 1995 **Sponsor:** Energy Systems Research Center

252. Introduction to Supervisory Control and Data Acquisition (SCADA) System

**Location:** Arlington, TX

**Date:** May 29 - June 2, 1995

**Sponsor:** Energy Systems Research Center

253. Operation of a Dispatcher Training Simulator

Location: SCECO-EAST, Saudi Arabia

**Date:** January 3 - 10, 1995 **Sponsor:** SCECO-EAST

254. Voltage Surge Protection

**Location:** Denver, Colorado **Date:** October 9, 1994

**Sponsor:** IEEE Industry Application Society

255. Energy Training Program on Power System Protection and Control

**Location:** Arlington, TX

Wei-Jen Lee Page 80 of 106

**Date:** June 4 - August 10, 1990; June 2 - August 16, 1991

June 20 - August 26, 1994

Sponsor: Institute of International Education (IIE) and the United States Agency for

International Development (USAID)

256. Operator Training Courses

**Location:** Arlington, TX

**Date:** June 13 - August 19, 1994

**Sponsor:** SCECO-EAST (Saudi Arabia) and Thailand Electric Power Company

257. Executive Symposium and Business Tour Program for China

**Location:** Arlington, TX

**Date:** April 25 - May 30, 1993

August 25 - September 25, 1993

**Sponsor:** People's Republic of China

258. Electric Power Quality

Location: Panama Canal Commission, Panama

**Date:** June 15 - June 19, 1992 **Sponsor:** Panama Canal Commission

259. Dynamic Stability Analysis and Control of an Electric Power System

**Location:** Taipei, Taiwan

**Date:** April 1 - August 31, 1991 **Sponsor:** Taiwan Power Company

260. Design of an Open Architecture Distribution Automation System.

**Location:** Nanjing, Xi'an, Tai-Yuan, and Beijing, PRC

**Date:** December 15, 1989 - January 5, 1990

**Sponsor:** Department of Energy, Peoples Republic of China

261. Design Concepts of Next Generation Power System Protective Relays

**Location:** Seoul, Korea **Date:** August 22, 1989

**Sponsor:** Korea Electric Power Company (KEPCO)

262. Automated Mapping and Facility Management (AM/FM) in Distribution Automation

System.

**Location:** Beijing, PRC

**Date:** December 28 - December 30, 1988

Sponsor: Department of Energy, Peoples Republic of China

263. Design and Development of a Power System Simulation Laboratory.

Location: Nanjing, PRC

**Date:** December 20 - December 27, 1988

**Sponsor:** Department of Energy, Peoples Republic of China

264. Energy Conservation and Load Management.

**Location:** Shanghai, PRC **Date:** December 19, 1988

Wei-Jen Lee Page 81 of 106

**Sponsor:** Department of Energy, Peoples Republic of China

265. National Development Seminar of the Republic of China.

Location: Taipei, Taiwan

**Date:** July 25 - August 5, 1988

**Sponsor:** Executive Yuan, Republic of China.

Wei-Jen Lee Page 82 of 106

# 6. Student Supervision

# (a) Ph.D. Dissertation Completed

1. Dr. Yuhao Zhou

Title: Dynamic Equivalent Wind Farm Models for Planning, Operation, and Post Fault

Analyses **Completion Date:** May 2021

2. Dr. Anusha Papasani

Title: Automatic System Restoration for Industrial Power Systems

**Completion Date:** May 2021

3. Dr. Long Zhao

Title: Exploring IoT-Based Applications in Power Systems Monitoring, Demand Side

Management, and Protection **Completion Date:** August 2020

4. Dr. Igor Brandão Machado Matsuo

Title: Subsynchronous Resonance Analysis and Detection

Completion Date: December 2019

5. Dr. Farshid Salehi

**Title:** Subsynchronous Control Interaction – Modeling and Detection

**Completion Date:** December 2018

6. Dr. Samuel Vega Cotto

**Title:** Application of the Research Process for the Development of a Microgrid Modular Design for Tribal Healthcare Facilities in the Navajo Nation: Kayenta Health Center Used as a Subject Study for Experimental Data

**Completion Date:** May 2018

7. Dr. Xing Wang

Title: Enhanced Customer Demand Load Profiles Estimation Algorithms for Field

Application

**Completion Date:** August 2016

8. Dr. Shiuan-Hau Rau

Title: AC Arc Flash Light Intensity Estimator and MHD Based DC Arc Model

**Completion Date:** August 2016

9. Dr. Zhenyuan Zhang

**Title:** Arc Flash Hazards Analysis **Completion Date:** December 2015

10. Dr. Zhaohao Ding

Title: Microgrid Optimal Operation under a Stochastic Environment

**Completion Date:** May 2015

11. Dr. Xueyang Cheng

Title: Employing Online Data for Dynamic Equivalent Model Parameter Identification of

Large Scale Wind Farm

**Completion Date:** May 2015

Wei-Jen Lee Page 83 of 106

12. Dr. Piampoom Sarikprueck

Title: Forecasting of Wind, PV Generation and Market Price for the Optimal Operations

of the Regional PEV Charging Stations

**Completion Date:** May 2015

13. Dr. Meng Liu

Title: Energy Storage Devices for Seamless Integration of Renewable Energy

**Completion Date:** December 2014

14. Dr. Franklin L. Quilumba-Gudiño

Title: Using Advanced Metering Infrastructure Data for Smart Grid Development

**Completion Date:** May 2014

15. Dr. Hailong Hui

Title: Reliability Unit Commitment in ERCOT Nodal Market

**Completion Date:** May 2013

16. Dr. Mohammed I Abouheaf

Title: Optimization and Reinforcement Learning Techniques in Multi-Agent Graphical

Games and Economic Dispatch

**Completion Date:** December 2012

(Co-Supervised with Dr. Frank Lewis)

17. Dr. Eithar Nashawati

Title: Dynamic System Reduction and Fault Location Identification Using

Synchrophasors

**Completion Date:** May 2012

18. Dr. Chin-Chu Tsai

Title: PMU-Base Parameter Identification for the Synchronous Generator Dynamic

Model

Completion Date: December 2011

19. Dr. Suratsavadee Koonlaboon Korkua

**Title:** Wireless Health Monitoring and Improvement System for Wind Turbines

Completion Date: December 2011

20. Dr. Qiaohui Hu

Title: Distribution Network Contingency Analysis and Contingency Detection with the

Consideration of Load Models **Completion Date:** August 2010

21. Dr. Yunzhi Cheng

Title: A Hybrid Method for Identifying and Estimating Key Dynamic Parameters for

Exciters, PSS, and Governors Based on Event-Recorded Measurements

**Completion Date:** December 2009

22. Dr. Shun Liang

Title: A Novel Method for Major Harmonic Sources Identification in High Voltage

**Transmission Systems** 

**Completion Date:** December 2009

Wei-Jen Lee Page 84 of 106

23. Dr. Morgan M. Kiani

Title: Effects of Voltage Unbalance and System Harmonics on the Performance of

**Doubly Fed Induction Wind Generators** 

**Completion Date:** May 2009

24. Dr. Abedalgany Abedallah Athamneh

Title: Open Main Detection in Underground Distribution Network Using Statistical

Approaches

**Completion Date:** May 2009

25. Dr. Mandhir Singh Sahni

Title: Novel Algorithms for Detection/Classification of Low/Medium Voltage

Switchgear & Motor Coil Arc Faults

**Completion Date:** August 2008

26. Dr. David Timothy Chessmore

Title: Voltage Profile Estimation and Reactive Power Control of Distribution Feeders

**Completion Date:** May 2008

27. Dr. Supun Tiptipakorn

Title: Web Based Integrated Multiple Function Customer Demand and Budget

Management System

**Completion Date:** May 2008

28. Dr. Yea-Zong Kuo

**Title:** Dynamic Voltage Restorer for Sensitive Equipment

**Completion Date:** May 2007

29. Dr. Ming-Tse Kuo

Title: Dynamic Stability Analysis of Large-Scale Power Systems Using a Fast

**Investigation Method** 

**Completion Date:** December 2006

30. Dr. Kittipong Methaprayoon

Title: Generation Planning and Market Operation Strategies in the Southwest Power Pool

Energy Imbalance Service Market

**Completion Date:** December 2006

31. Dr. Shun-Hsien Huang

Title: Web-Based Real-Time Monitoring System to Enhance the Participation of an

Industrial Power System in a Restructured Utility Industry

**Completion Date:** August 2006

32. Dr. Pradit Fuangfoo

Title: The Impact of Distributed Generation on the Thailand's Electric Power System

**Completion Date:** August 2006

33. Dr. Chitra Yingvivatanapong

Title: Multi-Area Unit Commitment and Economic Dispatch with Market Operation

Components

**Completion Date:** May 2006

Wei-Jen Lee Page 85 of 106

# 34. Dr. Worakarn Wongsaichua

Title: Integrated High Speed Intelligent Utility Tie Unit for Disbursed/Renewable

Generation Facilities

Completion Date: December 2005

35. Dr. Chai Chompoo-Inwai

Title: Transmission Congestion Management during Transition Period of Electricity

Deregulation in Thailand

**Completion Date:** August 2005

36. Dr. Pornpranod Didsayabutra

Title: Determination of Real-Time Available Transfer Capability (ATC) in Thailand

Power System

Completion Date: March 2001

(Co-Supervised with Dr. Bundhit Eua-Arporn, Associate Professor at Chulalongkorn

University, Bangkok, Thailand)

37. Dr. Wen-Ta Hsiao

Title: Fast Voltage Stability Assessment and Reinforcement in an Interconnected Power

System

**Completion Date:** December 1998

(Co-Supervised with Dr. M. S. Chen)

38. Dr. Chia-Hung Lin

**Title:** Energy Flow for Electric Power System Deregulation

**Completion Date:** May 1997

(Co-Supervised with Dr. M. S. Chen)

39. Dr. Han Ke

**Title:** Study the Abnormal Phenomena of Capacitor Voltage Transformer (CVT) at

Taiwan Power Company

**Completion Date:** August 1996

(Co-Supervised with Dr. M. S. Chen)

40. Dr. Chung-Fu Chen

**Title:** A Study of the Operational Issues of the Transition and Deregulation of Taiwan Power Industry and Systems With Emphasis on Systems Stability, Possetive Power and

Power Industry and Systems, With Emphasis on System Stability, Reactive Power, and

Power Wheeling

**Completion Date:** May 1996

(Co-Supervised with Dr. M. S. Chen)

41. Dr. Shy-Ying Liu

Title: On-Line Dynamic Stability Analysis of Taiwan Power System

**Completion Date:** August 1995

(Co-Supervised with Dr. M. S. Chen)

42. Dr. Jen-Hung Chen

Title: The Prevention of the Supersynchronous Resonance Problem on the Turbine

System of Generator with Static Var Compensator

Completion Date: August 1994

Wei-Jen Lee Page 86 of 106

(Co-Supervised with Dr. M. S. Chen)

43. Dr. Yih-Ping Chang

**Title:** Three-Phase Load Flow for Unbalanced Systems

**Completion Date:** May 1994

(Co-Supervised with Dr. M. S. Chen)

44. Dr. Chung-Shih Hsu

Title: Dynamic Stability of the Taiwan Power System

**Completion Date:** May 1994

(Co-Supervised with Dr. M. S. Chen)

45. Dr. Yuin-Hong Liu

Title: Voltage Stability Study with Emphasis on Load Characteristics

Completion Date: May 1994

(Co-Supervised with Dr. M. S. Chen)

46. Dr. Jae-Hyeon Gim

Title: Dynamic Characteristic Analysis and Real-Time Monitoring System for an

**Industrial Power System** 

**Completion Date:** December 1993 (Co-Supervised with Dr. M. S. Chen)

47. Dr. Kuang-Chung Lai

Title: Computer Aided Analysis of Distribution System: Design and Implementation

**Completion Date:** December 1992 (Co-Supervised with Dr. M. S. Chen)

48. Dr. Jyh-Cherng Gu

Title: Design of a Microcomputer-Based Intelligent Distance Relay for Power System

Protection

**Completion Date:** May 1992

49. Dr. Tze-Yee Ho

Title: The Application of Static Var Compensator on Negative Sequence Current

Reduction for Generator Protection

Completion Date: May 1992

50. Dr. Rogelio Soto-Rodriguez

**Title:** Microcomputer Based Sliding Mode Control of an Induction Motor

**Completion Date:** May 1990

(Co-Supervised with Dr. K. S. Yeung)

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# (b) Master Thesis Completed

1. Ms. Azade Brahman

Title: Analytical Technique to Evaluate Impact of Mutual Coupling on Transmission

Line Protection Schemes

**Completion Date:** December 2017

2. Mr. Franklin L. Quilumba-Gudiño

Title: Using Advanced Metering Infrastructure Data for Smart Grid Development

**Completion Date:** May 2014

2. Mr. Vijayanand Appanaickenpatti Ramachandran

Title: Short Circuit Analysis and Circuit breaker Interrupting Capability Validations for

**Industrial Power Plants** 

**Completion Date:** December 2011

3. Ms. Feiran Huang

Title: Optimization of PHEV Charging Station

**Completion Date:** December 2010

4. Mr. Himanshu Jain

Title: Detection and Severity Classification of Rotor Imbalance Faults in Induction

Machines

**Completion Date:** May 2010

5. Ms. Weiping Xiao

**Title:** Optimization of Hydrogen Filling Station

**Completion Date:** December 2009

6. Mr. Ming-Shun Lu

**Title:** Combing the Wind Power Generation System with Energy Storage Equipments

**Completion Date:** December 2008

7. Mr. Frederico Von Pinho

Title: Development of a New Procedure for Assessing Power System Reliability in

Preparation for NERC's Standards Compliance

**Completion Date:** December 2008

8. Ms. Xu Shu

Title: Common Data Format for the Power System Simulation Programs

**Completion Date:** August 2007

9. Ms. Jenny Tejeda Carlos

**Title:** Partial Discharge and Arcing Fault Detection on Electric Apparatus

**Completion Date:** August 2006

10. Mr. Vishal Bhan

Title: Optimization of Hydrogen Fueling Station

**Completion Date:** August 2006

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11. Ms. Sothaya Rasmidatta

**Title:** Hourly Weather Forecast Analysis

**Completion Date:** August 2006

12. Mr. Abedalgany Athamneh

Title: Benefits of FACTS Devices for Power Exchange Among Jordanian

Interconnection with Other Countries **Completion Date:** August 2005

13. Mr. Vinod Simha

**Title:** Transient Behavior of Five-Legged Transformer

**Completion Date:** May 2005

14. Mr. Eduardo Alberto Perez

Title: Parametric Study to Evaluate the Transient Stability of an Industrial Power System

**Completion Date:** May 2005

15. Mr. Anil Kanagala

Title: Development of Real-Time Monitoring System for an Industrial Power System

**Completion Date:** December 2004

16. Mr. Mandhir Singh Sahni

Title: Design and Implementation of Control Algorithms for Real Time Static Load

Control Using LabVIEW and PLC Completion Date: December 2004

17. Ms. Hemiao Zhang

Title: Neural Network Based On-Line Partial Discharge Health Monitoring System for

Motors and Switchgears **Completion Date:** May 2004

18. Mr. Chanwit Klongpanichpak

Title: Special Protection System Design for Plant Outage in Southern Thailand

**Completion Date:** May 2004

19. Mr. Eithar Nashawati

Title: Automatic Relay Settings Switchover for Mobile Substation

**Completion Date:** May 2004

20. Ms. Asma Al-Tamimi

**Title:** Three Phase Induction Motor Control System Design (Thesis Substitute)

**Completion Date:** December 2003

21. Mr. Vasin N. Vasinanukorn

Title: Turbine-Governor and Exciter Control of DC Motor-Generator Set

**Completion Date:** December 2003

22. Mr. Titti Saksornchai

**Title:** Improve the Performance of Unit Commitment Scheduling for a Utility Company

**Completion Date:** August 2003

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23. Mr. Kittipong Methaprayoon

Title: Neural Network-Based Short Term Load Forecasting For Unit Commitment

Scheduling

**Completion Date:** August 2003

24. Mr. Xia Gao

**Title:** Fault Location for Overhead Distribution Feeders

**Completion Date:** May 2003

25. Ms. Chitra Yingvivatanapong

Title: Robust Algorithms for High Speed Voltage Sags and Swelling Detection

Completion Date: December 2001

26. Ms. Yea Zong Kuo

Title: Voltage Stability and Reactive Planning

Completion Date: December 1999

27. Ms. Mai-Chi Nguyen

Title: Signature Based Algorithm to Locate Harmonic Sources

**Completion Date:** December 1999

28. Mr. Quang Thanh Do

Title: The Voltage Stability Analysis of ERCOT+SPP Interconnected System with

Emphasis on Uneven Regional Load Growth Rate

Completion Date: December 1998

29. Mr. Yulu Liu

**Title:** Design of a Microcomputer-Based Solid State Controller for On-Load-Tap-Change

Transformer

**Completion Date:** May 1997

30. Mr. Wei Liu

**Title:** Microcomputer-Based Dynamic and Static Relay Testing Station

**Completion Date:** December 1996

31. Mr. Jugal Kishore Khanna

Title: Intelligent Load Shedding Relay with Disturbance Detection Scheme for Power

**System Protection** 

**Completion Date:** May 1995

32. Mr. Krishnan Narayanan

Title: The Design and Development of a Capacitor Bank Early Warning System

Completion Date: December 1994

33. Mr. Manoj Bapu Roge

Title: Design and Development of a Dual Processor Based Overcurrent Relay for Power

**System Protection** 

Completion Date: August 1994

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34. Mr. Feridoon Hooshdaran

Title: Direct Current Busing System Design

**Completion Date:** December 1993

35. Mr. Sundaram M. Sethu

Title: Remote Monitoring, Data Retrieval, and Control of an Intelligent Protective Relay

System

**Completion Date:** December 1992

36. Mr. Yu-Wei Shih

**Title:** Development of an Emergency Generation Assistance System for Taiwan Power

Company

**Completion Date:** May 1991

37. Mr. Lian-Ju Shih

Title: Intelligent Load Shedding Relay with df/dt Dynamic Frequency Setting Adjustment

for Power System Protection **Completion Date:** May 1990

38. Mr. Shy-Ying Liu

Title: Use Optimal Power Flow (OPF) in Improving Voltage Profile and System Security

of Power System

**Completion Date:** December 1989

39. Mr. Chung-Shih Hsu

Title: Superconducting Magnetic Energy Storage (SMES) for Power System Applications

**Completion Date:** August 1989

40. Mr. Jyh-Cherng Gu

Title: A Microcomputer Based Intelligent Load Shedding Relay

**Completion Date:** August 1988

# (c) Current Students Supervision

• Ph.D. Students

- Ms. Kaynat Zia

- Mr. Ashley Williams

- Mr. Po-Chen Chen

- Mr. Po-En Su

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# 7. Funded Projects and Grant

1. A Novel AI-Driven Smart System for Insecticide-Free Fire Ant Control (Co-PI)

Sponsor: U.S. Department of Agriculture (USDA); Agricultural Research Service

(ARS)

**Award:** 99,453.00

**Period:** August 15, 2022 – August 15, 2024

PI: Shouyi Wang (IMSE)
Co-PI: Jianzhong Su (Math)

2. Project Manager - IEEE/NFPA Arc Flash Collaborative Research Project (PI)

**Sponsor:** IEEE & NFPA **Award:** 73,880.00

**Period:** January 1, 2022 – December 31, 2022

3. UTA RET Site on Sustainable and Resilient Infrastructure for Urban Communities (Co-PI)

**Sponsor:** National Science Foundation

**Award:** 596,380.00

**Period:** December 1, 2021 – November 30, 2024

**PI:** Nur Yazdani (CE)

**Co-PI:** Melanie L Sattler and Kate Kyung Hyun (CE)

**Co-PI:** Victoria Chen (IMSE) **Co-PI:** Muhammad Huda (Phys)

4. Wireless Monitoring System for Online Insect Tracking Data Analysis (PI)

Sponsor: U.S. Department of Agriculture (USDA); Agricultural Research Service

(ARS)

**Award:** 75,606.00

**Period:** July 1, 2021 – June 30, 2023

**Co-PI:** Jianzhong Su (Math)

5. Probabilistic Modeling and Stochastic Optimization for Effective Demand Response Decision Management under Uncertainties in Emerging Smart Energy Markets (Co-PI)

**Sponsor:** ECCS - EPAS-Energy Power & Adapt System, National Science Foundation

**Award:** 466,068.00

**Period:** June 1, 2020 – May 31, 2023

PI: Shouyi Wang (IMSE)
Co-PI: Jay Rosenberger (IMSE)
Co-PI: Victoria Chen (IMSE)

6. Project Manager - IEEE/NFPA Arc Flash Collaborative Research Project (PI)

**Sponsor:** IEEE & NFPA

**Award:** 92,350.00

**Period:** January 1, 2020 – December 31, 2021

7. Project Manager - IEEE/NFPA Arc Flash Collaborative Research Project (PI)

**Sponsor:** IEEE & NFPA

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**Award:** 73,880.00

**Period:** January 1, 2019 – December 31, 2019

8. Dynamic Short Circuit Model of Battery Storage System for DC Arc Flash Analysis (PI)

**Sponsor:** Sandia National Lab

**Award:** 195,000.00

**Period:** October 11, 2018 – October 10, 2022

9. Generation/Transmission Planning and Integration of Emerging Technologies to the Grid (PI)

**Sponsor:** PWRSolutions/DNV-GL

**Award:** 14,907.00

**Period:** September 1, 2018 – January 31, 2019

10. Generation/Transmission Planning and Integration of Emerging Technologies to the Grid (PI)

**Sponsor:** PWRSolutions/DNV-GL

**Award:** 14,631.00

**Period:** June 1, 2018 – August 31, 2018

11. IP Addressable System Performance Monitoring System (PI)

**Sponsor:** Formosa Plastics USA

**Award:** 218,500.00

**Period:** June 1, 2018 – October 31, 2020

12. Project Manager - IEEE/NFPA Arc Flash Collaborative Research Project (PI)

**Sponsor:** IEEE & NFPA

**Award:** 73,880.00

**Period:** January 1, 2018 – December 31, 2018

13. Platform Independent Apps for Incident Energy and Arcing Current Estimation (PI)

Sponsor: IEEE-SA, USA

**Award:** 56,153.00

**Period:** September 1, 2017 – August 31, 2018

**Co-PI:** Jia Rao (CSE)

14. Quality Assurance Research to Improve the Yield Rate of the Products (PI)

**Sponsor:** AC Electronics, USA

**Award:** 39,000.00

**Period:** October 9, 2017 – May 31, 2018

15. Web Based Dynamic Performance Monitoring System (PI)

**Sponsor:** Formosa Plastics USA

**Award:** 181,124.00

**Period:** September 1, 2016 – August 31, 2018

16. Preliminary Comparison between 50/60Hz and 400Hz Arc Flash Phenomena (PI)

**Sponsor:** Boeing Aircraft Company

**Award:** 29,300.00

**Period:** April 10, 2017 – September 30, 2017

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17. Generation/Transmission Planning and Integration of Emerging Technologies to the Grid (PI)

**Sponsor:** PWRSolutions/KEMA

**Award:** 218,781.00

**Period:** November 15, 2013 – January 31, 2018

18. Project Manager - IEEE/NFPA Arc Flash Collaborative Research Project (PI)

**Sponsor:** IEEE & NFPA **Award:** 73,880.00

**Period:** January 1, 2017 – December 31, 2017

19. Bridging the Gap in Marketing and Engineering: Introducing Human Factors into Utility Consumption Big Data Analysis (Co-PI)

**Sponsor:** UT Arlington **Award:** 10,000.00

**Period:** July 1, 2016 – June 30, 2017

PI: Zhiyong Yang

20. Project Manager - IEEE/NFPA Arc Flash Collaborative Research Project (PI)

**Sponsor:** IEEE & NFPA **Award:** 73.880.00

**Period:** January 1, 2016 – December 31, 2016

21. Evaluation of Power to Resistive Heater Elements in the Hypersonic Wind Tunnel (HWT) Facility (PI)

**Sponsor:** Sandia National Laboratories

**Award:** 19,619.00

**Period:** April 10, 2016 – September 30, 2016

22. Project Manager - IEEE/NFPA Arc Flash Collaborative Research Project (PI)

**Sponsor:** IEEE & NFPA

**Award:** 688,460.00 (Total budget of the project is \$3,700,000.00)

**Period:** September 18, 2008 – December 31, 2015

23. Development of PC and Mac companion CD product for Arc Flash awareness, education and reference (PI)

**Sponsor:** IEEE Standards Association

**Award:** 80,854.00

**Period:** September 1, 2012 – May 31, 2016

Co-PI: Heng Huang

24. Enhance Customer Demand Load Profile Estimation Algorithms for Field Application (PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

**Award:** 142,054.00

**Period:** July 1, 2013 – August 31, 2015

**Co-PI:** Heng Huang

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25. EFRI-RESTOR: Regenerative Hydrogen-Bromine Fuel Cell System for Energy Storage (PI at UTA)

**Sponsor:** National Science Foundation

**Award:** 159,999.00

**Period:** August 15, 2010 – August 14, 2015 **PI:** Trung Nguyen – University of Kansas

**Co-PI:** Eric McFarland – University of California Santa Barbara

Horia Metiu – University of California Santa Barbara

Peter Pintauro – Vanderbilt University

26. EPS/AIS Collaborative Research: Adaptive Design for Controllability of a System of Plug-in Hybrid Electric Vehicle Charging Stations (Co-PI)

**Sponsor:** National Science Foundation

**Award:** 416,431.00 (UTA Portion: 271,688.00) **Period:** September 1, 2011 – August 31, 2015

PI: Victoria Chen (IMSE)
Co-PI: Jay Rosenberger (IMSE)

**PI:** Janet K Allen (University of Oklahoma Norman Campus)

**Co-PI:** Farrokh Mistree

27. UT Arlington REU Site on Hazard Mitigation (Co-PI)

**Sponsor:** NSF ENG **Award:** 436,365.00

**Period:** June 2010 – August 2014

PI: Nur Yazdoni

**Co-PI:** Anand Puppala (CE), Melanie Sattler (CE), Yvette Weatherton (CE), John

McEnery (CE), Matt Wright (CSE), and Bonnie Boardman (IE)

28. Effects of Unbalanced Voltage on the Operation Performance of Three-Phase Submersible Pumps (Co-PI)

**Sponsor:** CoServ Services

**Award:** 54.665.00

**Period:** October 1, 2011 – September 30, 2012

**PI:** David Wetz

29. Study and Evaluation on Power System of Point Comfort Plant of Formosa Plastics Co. (PI)

**Sponsor:** Formosa Plastics USA

**Award:** 121,000.00

**Period:** July 1, 2010 – January 31, 2013

**Co-PI:** Mingyu Lu

30. The Development of a Smart MicroGrid Testbed (PI)

**Sponsor:** DOE, Earmark Appropriation

**Award:** 500,000.00 (Including matching: 627,216.00)

**Period:** April 26, 2010 – April 25, 2013

**Co-PI:** David Wetz

Ali Davoudi

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31. Using Smart Meter Readings to Identify the Consumption Pattern of Major Appliances in the Single Family Residential Homes (Co-PI)

Sponsor: Consolidated Edison Company of New York, Inc.

**Award:** 254,168.00

**Period:** July 1, 2010 – May 31, 2013

**PI:** Heng Huang

32. UT Arlington RET Site on Hazard Mitigation (Co-PI)

**Sponsor:** NSF ENG **Award:** 511,403.00

**Period:** March 2008 – February 2012

**PI:** Nur Yazdoni

**Co-PI:** Anand Puppala (CE), Melanie Sattler (CE), Yvette Weatherton (CE), John

McEnery (CE), Matt Wright (CSE), and Bonnie Boardman (IE)

33. Enhance Generation Parameters Verification Process for ERCOT System (PI)

**Sponsor:** CCET & Texas Emerging Technology Fund

**Award:** 108,255.00

**Period:** April 1, 2010 – December 31, 2013

34. Basic and Applied Research, Technical Services for Energy and Power Management (PI)

**Sponsor:** Lockheed Martin

**Award:** 12,376.00

**Period:** July 19, 2010 – December 31, 2013

**Co-PI:** David Wetz

35. Guidelines for Implementing Dynamic Thermal Circuit Rating (DTCR) in EMS (PI)

**Sponsor:** Electric Power Research Institute

**Award:** 70,031.00

**Period:** August 5, 2010 – December 31, 2012

36. Evaluation of Switching Surges Associated with Smart Meters (PI)

**Sponsor:** CoServ Services

**Award:** 36,000.00

**Period:** May 3, 2011 – September 30, 2011

**Co-PI:** David Wetz

37. A Fast Fault Detection and Localization Approach to Monitoring Cables in Underground Power Distribution Network (Co-PI)

**Sponsor:** Signal Processing, Inc. (DOE SBIR Phase I)

**Award:** 30,000.00

**Period:** June 21, 2010 – March 21, 2011

**PI:** Mingyu Lu

38. A Novel Wireless Sensor Network with Advanced Prognostic Algorithms for Condition Based Maintenance of Critical Power Plant Components (Co-PI)

**Sponsor:** Signal Processing, Inc. (DOE SBIR Phase II)

**Award:** 180,264.00

**Period:** September 1, 2008 – February 28, 2011

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**PI:** Frank Lewis

39. Development of Battery Management and SOC Monitoring for Electric Vehicle Applications (Co-PI)

**Sponsor:** ArcAngel Technologies, LLC.

**Award:** 199,732.00

**Period:** June 1, 2009 – May 31, 2010

**PI:** Babak Fahimi

40. The Study on ERCOT Nodal Market (PI)

Sponsor: Kedong Company, Beijing, PR China

**Award:** 50,000.00

**Period:** July 1, 2008 – December 31, 2009

41. Hydrogen for Sustainable and Cost Effective Energy (Co-PI)

**Sponsor:** DOE 2009 Ear Mark Fund

**Award:** 367,000.00

**Period:** September 2008 – August 2009 **PI:** Krishnan Rajeshwar and Rick Billo

**Co-PI:** Phil Cohen

Victoria Chen

42. Implementing On-Line Open Main Detection System for the Secondary Distribution Networks by Processing the "RMS" Data (PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

**Award:** 119,160.00

**Period:** April 11, 2008 – April 10, 2009

**Co-PI:** Heng Huang (CSE)

43. Power Factor Correction Options and Its Potential Advert Effects on the Distribution Network (PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

**Award:** 49,836.00

**Period:** November 12, 2008 – August 13, 2009

**Co-PI:** Heng Huang (CSE)

44. Parameter Identification of Generation Systems in ERCOT (PI)

**Sponsor:** CCET & Texas Emerging Technology Fund

**Award:** 84,300.00

**Period:** January 1, 2008 – December 31, 2008

45. Voltage Profile Estimation and Control of the Distribution Feeder for Hydro-Québec Distribution Network (Co-PI)

**Sponsor:** Hydro Quebec

**Award:** 50,554.00

**Period:** May 1, 2007 – January 31, 2009

PI: Bei Gou

46. Distributed Load Profiling for the Distribution Network of Con Edison (PI)

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**Sponsor:** Consolidated Edison Company of New York, Inc.

**Award:** 49,997.00

**Period:** October 1, 2007 – May 31, 2009

47. Technical concept design effort to develop an Intelligent Energy Control System (PI)

**Sponsor:** William Pyro, Inc. (Army SBIR Project)

**Award:** 7,731.00

**Period:** January 1, 2008 – April 30, 2008

48. Research Assistance on Power Delivery System (PI)

**Sponsor:** Power Solution, Inc.

**Award:** 14,018.00

**Period:** August 1, 2007 – July 31, 2008

49. A Novel Wireless Sensor Network with Advanced Prognostic Algorithms for Condition Based Maintenance of Critical Power Plant Components (Co-PI)

**Sponsor:** Signal Processing, Inc. (DOE SBIR Phase I)

**Award:** 30.000.00

**Period:** July 1, 2007 – March 31, 2008

**PI:** Frank Lewis

50. Multivariate Process Monitoring and Fault Identification (Co-PI)

**Sponsor:** TXU Power **Award:** 84,200.00

**Period:** January 2007 – January 2008

PI: S. B. Kim Victoria Chen

51. Integrated Volt/Var Control of distribution system (Co-PI)

**Sponsor:** Hydro Quebec **Award:** 13,719.00

**Period:** May 2007 – September 2007

**PI:** Bei Gou

52. Wind Generation Forecasting and Load Forecasting Software Development (PI)

**Sponsor:** Western Farmer Electric Coop

**Award:** 30.000.00

**Period:** April 18, 2007 – April 13, 2008

53. Market-Clearing Prices in Power Dispatch Markets by Mixed Integer Programming (Co-PI)

**Sponsor:** ISO-New England

**Award:** 20,153.00

**Period:** April 2007 – July 2007

**PI:** Bei Gou

54. Transmission Voltage Harmonic Study for TXU Electric Delivery (PI)

**Sponsor:** TXU Electric Delivery

**Award:** 50,163.00

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**Period:** October 2006 – January 2008

55. Equipment Donation- Six (6) Microprocessor Based Impedance Relay (SEL-421) (PI)

**Sponsor:** Schweitzer Engineering Laboratories, Inc.

**Award:** 36,000.00

**Period:** September 2006

56. Standard Data Exchanges for Distribution System Management (PI)

**Sponsor:** Williams-Pyro Inc. (DOE SBIR)

**Award:** 10,120.00

**Period:** September 2006 – May 2007

57. Voltage Profile Estimation and Control of the Distribution Feeder (PI)

**Sponsor:** TXU Electric Delivery

**Award:** 111,081.00

**Period:** January 16, 2006 – February 28, 2008

58. Wind Generation Forecasting and SPP EIS Market Software Development (PI)

**Sponsor:** Western Farmer Electric Coop

**Award:** 55,000.00

**Period:** January 1, 2006 – March 31, 2007

59. Gift from TXU Energy

**Sponsor:** TXU Electric Delivery

**Award:** 8,000.00 **Period:** October 2005

60. Develop an Artificial Neural Network (ANN) Based Health Monitoring System for Power Distribution Switchgear and Motor Windings (PI)

Sponsor: Intelligent Automation, Inc. (Small Business Initiative Research (SBIR) Phase

II, US Air Force)

**Award:** 250,000.00

**Period:** September 2004 – September 2007

**Co-PI:** Dr. Soontorn Oraintara

61. Integrating of Neural Network Based Short Term Load Forecasting Program into SCADA System for Unit Commitment Scheduling (PI)

**Sponsor:** Western Farmer Electric Coop.

**Award:** 160,000.00

**Period:** January 2002 – January 2006

**Co-PI:** Dr. Raymond Shoults

62. Stability Study for ExxonMobil Beaumont Chemical Plant (PI)

**Sponsor:** ExxonMobil **Award:** 15,000.00

**Period:** July 2005 – August 2005 **Co-PI:** Dr. Rasool Kenarangui

63. Review of Turbine Generator BCOE (Co-PI)

**Sponsor:** Army Corp of Engineers

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**Award:** 25,000.00

**Period:** February 2005 – August 2005

**PI:** Dr. Rasool Kenarangui

64. Protective Relay Installation for Whitney Hydro Power Plant (Co-PI)

**Sponsor:** Army Corp of Engineers

**Award:** 193,000.00

**Period:** September 2004 – August 2005

**PI:** Dr. Rasool Kenarangui

65. Impedance Ground and Protection for Lake Whitney Hydro Power Plant (Co-PI)

**Sponsor:** Army Corp of Engineers

**Award:** 70,000.00

**Period:** September 2004 – August 2005

PI: Dr. Rasool Kenarangui

66. Generation Protection Analysis and Design for Lake Whitney Hydro Power Plant (Co-PI)

**Sponsor:** Army Corp of Engineers

**Award:** 35,000.00

**Period:** April 2004 – September 2004

PI: Dr. Rasool Kenarangui

67. Dynamic Performance Monitoring System for the Interconnection Between The Cogeneration and Utility Grid (PI)

**Sponsor:** Formosa Plastics USA

**Award:** 70,370.00

**Period:** February 2004 – August 2005

68. Develop an Artificial Neural Network (ANN) Based Health Monitoring System for Power Distribution Switchgear and Motor Windings (PI)

**Sponsor:** Intelligent Automation, Inc. (Small Business Initiative Research (SBIR) Phase

I, US Air Force)

**Award:** 30.000.00

**Period:** July 2003 – March 2004 **Co-PI:** Dr. Soontorn Oraintara

69. Integrated Intelligent Utility Tie System for Distributed Generation (PI)

**Sponsor:** Intelligent Automation, Inc. (Small Business Initiative Research (SBIR),

National Science Foundation)

**Award:** 30,000.00

**Period:** July 2003 – December 2003

**Co-PI:** Dr. Soontorn Oraintara

70. Study and Develop a Strategic Plan for an Energy Center at Alcorn State University (PI)

**Sponsor:** Alcorn State University

**Award:** 99,800.00

**Period:** January 2003 – December 2003

71. Machine Models and Parameters for FORMOSG6, FORMOSG7, and FORMOSG9 (PI)

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**Sponsor:** Formosa Plastics USA

**Award:** 10,000.00

**Period:** September 2002 – December 2002

72. Magnetic Field Calculation for Upgraded Transmission Lines (PI)

**Sponsor:** Rock River Energy LLC

**Award:** 9,000.00

**Period:** March 2002 – May 2002

73. Interdisciplinary Studies Program for SCECO-Central Operators (Co-PI) **Sponsor:** Saudi Consolidated Electric Company in the Central Region

Sponsor. Saudi Consondated Electric Company in the C

**Award:** 140,000.00

**Period:** September 2001 – August 2002

**PI:** Dr. Mo-Shing Chen

74. Robust Algorithms for High Speed Voltage Sags and Swelling Detection (PI)

**Sponsor:** Texas Instruments

**Award:** 60,000.00

**Period:** February 2001 – August 2001

**Co-PI:** Dr. Soontorn Oraintara

75. Arcing Faults Detection and Location of a Radial Distribution System (PI)

**Sponsor:** Foster Miller Technology

**Award:** 75,000.00

**Period:** January 2001 – January 2003

76. Neural Network Based Short-Term Load Forecasting (Co-PI)

**Sponsor:** Saudi Consolidated Electric Company in the East Region

**Award:** 35,000.00

Period: October 21 - 25, 2000 PI: Dr. Mo-Shing Chen Co-PI: Dr. Raymond Shoults

77. Undergraduate Laboratory Development Fund (Co-PI)

**Sponsor:** LERR **Award:** 263,300.00

**Period:** September 2000 – August 2001

**PI:** Dr. Jon Bredow

**Co-PI:** Dr. George V. Kondraske

78. Interdisciplinary Studies Program for SCECO-Central Operators (Co-PI)

**Sponsor:** Saudi Consolidated Electric Company in the Central Region

**Award:** 160,000.00

**Period:** September 2000 – August 2001

**PI:** Dr. Mo-Shing Chen

79. Laboratory Equipment Donation (The equipment is located in Room 218 Engineering Laboratory Building and has been used for undergraduate capstone design course)

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**Sponsor:** Southern Methodist University

Award: 120,000.00 Period: August 2001

80. Protocol Development for Power Quality and System Reliability Assessment (PI)

**Sponsor:** Alcorn State University

Award: 64,800.00

Period: May 2000 – August 2001

81. Identify the Distinct Signatures of Arcing Faults and Use Them for Possible Arcing Faults Locating in the Underground Networks (Co-PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

Award: 100,000.00

Period: January 1999 – December 1999

PI: Dr. Mo-Shing Chen

82. Interdisciplinary Studies Program for SCECO-Central Operators (Co-PI)

**Sponsor:** Saudi Consolidated Electric Company in the Central Region

Award: 440,000.00

Period: September 1998 – August 2000

PI: Dr. Mo-Shing Chen

83. Interdisciplinary Studies Program for SCECO-Central Operators (Co-PI)

**Sponsor:** Saudi Consolidated Electric Company in the Central Region

Award: 240,000.00

Period: September 1996 – August 1998

Dr. Mo-Shing Chen PI:

84. Training Program: Power System Protection (Co-PI)

**Sponsor:** Saudi Consolidated Electric Company in the Central Region

232,500.00 Award:

Period: March 1999 – December 1999

Dr. Mo-Shing Chen PI: Co-PI: Dr. Raymond Shoults

85. Training Program: 380, 230, 132 kV GIS Metalclad Switchgear Operation & Maintenance (Co-PI)

Sponsor: Saudi Consolidated Electric Company in the Central Region

202,500.00 Award:

Period: March 1999 – December 1999

PI: Dr. Mo-Shing Chen Dr. Raymond Shoults Co-PI:

86. Feasibility Study of AC Interconnection Between ERCOT and the Southwest Power Pool (Co-PI)

**Sponsor:** Public Utility Commission of Texas

Award: 85,000.00

January 1998 – December 1998 Period:

Dr. Mo-Shing Chen PI:

Wei-Jen Lee Page 102 of 106 **Co-PI:** Dr. Raymond Shoults

87. Implementation of Chinese Language and Characters in the RAVE System

**Sponsor:** Hughes Training Co. **Period:** March 1996 - May 1996

**Award:** 4,143.00

88. Open Main Detection and Location in Underground Electric Distribution Network. (Co-PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

**Period:** September 1995 - December 1998

**Award:** 300,000.00

**PI:** Dr. Mo-Shing Chen

89. Training Program: Microprocessor Based System Protection, Monitoring, and Control (PI)

**Sponsor:** Singapore Electrical Company. Singapore

**Date:** December 15 – 19, 1997

**Award:** 25,000.00

90. Training Program: Power Systems Analysis (Co-PI)

Sponsor: Formosa Petrochemical Company. Taipei, Taiwan ROC

**Period:** December 17 - 31, 1997

**Award:** 100,000.00

**PI:** Dr. Mo-Shing Chen

91. Training Program: Power Systems Protection and Microcomputer Based Relay (PI)

**Sponsor:** Power Management Institute, International Inc. Bangkok, Thailand

**Period:** June 2 - June 6, 1997

**Award:** 20.000.00

**Co-PI:** Dr. Mo-Shing Chen

92. Training Program: Power Quality (PI)

Sponsor: Power Management Institute, International Inc. Bangkok, Thailand

**Period:** May 26 - May 30, 1997

**Award:** 20,000.00

**Co-PI:** Dr. Mo-Shing Chen

93. Training Program: Power Systems Analysis (PI)

**Sponsor:** Power Management Institute, International Inc. Bangkok, Thailand

**Period:** January 13 - January 17, 1997

**Award:** 20,000.00

**Co-PI:** Dr. Mo-Shing Chen

94. Interconnection of Co-Generation and Independent Power Producer with Electrical Power System (Co-PI)

**Sponsor:** Formosa Petrochemical Company. Taipei, Taiwan ROC

**Period:** June 1996 - May 1997

**Award:** 110,000.00

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**PI:** Dr. Mo-Shing Chen

95. Interdisciplinary Studies Program for SCECO-Central Operators (Co-PI)

**Sponsor:** Saudi Consolidated Electric Company in the Central Region

**Award:** 400,000.00

**Period:** September 1992 – August 1996

**PI:** Dr. Mo-Shing Chen

96. Equipment Donation - Pulsar & Pulse Master (Relay Testing Equipment)

**Sponsor:** AVO International **Period:** September 1994

**Award:** 57,000.00

97. Static and Dynamic Performance Test of Network Protector by using ESRC's Power System Simulation Laboratory. (PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

**Period:** September 1994 - May 1995

**Award:** 15,000.00

98. Feasibility Study of the Development of a Distribution Network Simulation Laboratory (Co-PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

**Period:** January 1994 - December 1994

**Award:** 109,000.00

**PI:** Dr. Mo-Shing Chen

99. On-Line Dynamic Stability Monitoring System for Taiwan Power Company. (PI)

**Sponsor:** Taiwan Power Company

**Period:** January 1994 - December 1994

**Award:** 71.000.00

**Co-PI:** Dr. Mo-Shing Chen

100. Investigation of the Causes of Capacitor Voltage Transformer (CVT) Damage and Its Prevention Strategy for Taiwan Power Company. (Co-PI)

**Sponsor:** Taiwan Power Company. **Period:** July 1993 - June 1994

**Award:** 110,000.00

**PI:** Dr. Mo-Shing Chen

101. A Microcomputer Based Intelligent Load Shedding Relay with Disturbance Detection Scheme for Power System Protection. (PI)

**Sponsor:** Southern California Edison and Electronic Protection & Controls Co.

**Period:** August 1992 - March 1994

**Award:** 59.781.00

102. Development of a Real Time Power System Dynamic Performance Monitoring System (PI)

**Sponsor:** Formosa Plastics USA **Period:** June 1993 - May 1994

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**Award:** 75,000.00

**Co-PI:** Dr. Mo-Shing Chen

103. Dynamic Stability Analysis of a Co-Generation Power System (Co-PI)

**Sponsor:** Formosa Plastics USA **Period:** June 1992 - May 1993

**Award:** 35,000.00

**PI:** Dr. Mo-Shing Chen

104. Mitigation of the Low Frequency Oscillation Problem in Taiwan Power System (Co-PI)

**Sponsor:** Taiwan Power Company **Period:** June 1992 - May 1993

**Award:** 69,000.00

**PI:** Dr. Mo-Shing Chen

105. Training Program: Electric Power Quality (PI)

**Sponsor:** Panama Canal Commission **Period:** June 15 - June 19, 1992

**Award:** 20,000.00

106. Static and Dynamic Performance Test of Multifunction Protective Relay by using ESRC's Power System Simulation Laboratory (PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

**Period:** February 1991 - May 1991

**Award:** 25,000.00

**Co-PI:** Dr. Mo-Shing Chen

107. Design of a Generalized Cable Constant Calculation Program (Co-PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

**Period:** October 1990 - August 1991

**Award:** 50,000.00

**PI:** Dr. Mo-Shing Chen

108. Transient Analysis of Communication System's Grounding Network (PI)

**Sponsor:** MCI

**Period:** June 1990 - December 1990

**Award:** 25.000.00

109. Microcomputer Based Distance Relay System for Underground Transmission Lines Protection (PI)

**Sponsor:** Consolidated Edison Company of New York, Inc.

**Period:** May 1990 - June 1993

**Award:** 250,000.00

**Co-PI:** Dr. Mo-Shing Chen

110. Dynamic Operation Characteristics of Taipower System (Co-PI)

**Sponsor:** Taiwan Power Company

**Period:** January 1990 - December 1991

**Award:** 78,000.00

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**PI:** Dr. Mo-Shing Chen

111. Intelligent Universal Relay with Advanced Knowledge Based Technology for Power System Protection (PI)

**Sponsor:** Advanced Technology Program, Texas Higher Education Coordinating Board

**Period:** January 1990 - August 1992

**Award:** 60,000.00

**Co-PI:** Dr. Mo-Shing Chen

112. Aircraft Power System Simulation, Research, and Development (Co-PI)

**Sponsor:** General Dynamics

**Period:** January 1990 - December 1990

**Award:** 25,000.00

**PI:** Dr. Raymond Shoults

113. Aircraft Power System Simulation, Research, and Development (Co-PI)

**Sponsor:** NASA

**Period:** January 1990 - December 1990

**Award:** 20,000.00

**PI:** Dr. Raymond Shoults

114. Electromagnetic Field (EMF) Distribution on an Unbalanced Three-Phase High Voltage Transmission Line (PI)

**Sponsor:** Graduate School, The University of Texas at Arlington

**Period:** May 1990 - August 1990

**Award:** 4,700.00

115. Design of an Intelligent Load Shedding Relay (PI)

**Sponsor:** Electronic Protection & Controls, Co. **Period:** September 1989 - December 1991

**Award:** 48.617.00

116. Improve Current System Operation and Strategic System Planning of Taipower System (Co-PI)

**Sponsor:** Taiwan Power Company **Period:** March 1989 - February 1990

**Award:** 78,200.00

**PI:** Dr. Mo-Shing Chen

117. Dynamic Operation Characteristics of the KEPCO Power System (Co-PI)

**Sponsor:** Korea Electric Power Company (KEPCO)

**Period:** September 1987 - August 1989

**Award:** 160,000.00

**PI:** Dr. Mo-Shing Chen

118. Analysis of Surge Protectors (PI)

**Sponsor:** Frito Lay, Inc.

**Period:** March 1987 - August 1987

**Award:** 32,063.00

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