**学校引智计划重点项目系列讲座-- Prof. [Shmuel](http://www.ieor.berkeley.edu/~oren/%22%20%5Ct%20%22_top) OREN (IEEE/INFORMS Fellow, UC Berkey, USA)**

**to take place at**

**Minhang Campus, Shanghai Jiao Tong University,**

**800 Dongchuan Road, Shanghai, China.**

**22st to 24st September 2014.**

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| **Day One: Monday, 22 September 2014** |
| **8:30~9:00** | Opening Ceremony (电信群楼3-308) |
| Welcome Speech | **Dean of EE department, Prof. Yan Zheng** |
| **9:00~10:30** | Invited Speech 1-1: **A general overview of electricity markets in the US** | **Prof. Shmuel Oren** |
| **10:30~11:30** | Invited Speech 2-1: **Wind power modeling and control** | **Dr. Qiuwei Wu** |
| **12:00~13:00** | Lunch（大智居） |
| **14:30~16:00** | Chat Hour, SEIEE Building 1-318X, glass hall 玻璃房大会议室 | **Faculties of SJTU, etc.** **Prof. Shmuel Oren, Dr. Qiuwei Wu** |
| **16:00~17:00** | Lab tour实验室参观 | **Prof. Shmuel Oren, Dr. Qiuwei Wu** |
| **17:00~** | Dinner（留园） |

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| **Day Two: Tuesday, 23 September 2014 (SEIEE Building 1-318X)** |
| **9:00~10:30** | Invited Speech 1-2:  **Demand response using fuse control** | **Prof. Shmuel Oren** |
| **10:30~11:30** | Invited Speech: **Active distribution networks** | **Dr. Qiuwei Wu** |
| **12:00~13:00** | Lunch（大智居） |
| **14:30~16:00** | Invited Speech 1-3: **Transmission switching** | **Prof. Shmuel Oren** |
| **17:00~** | Dinner（华师大） |

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| **Day Three: Wednesday, 24 September 2014 (SEIEE Building 1-318X)** |
| **9:00~10:30** | Invited Speech 4: **Financial transmission rights** | **Prof. Shmuel Oren** |
| **10:30~11:30** | SJTU presentation 2 | **Dr. Donghan Feng** |
| **12:00~13:00** | Lunch（大智居） |

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| http://www.ieor.berkeley.edu/People/Faculty/images/oren.jpg | [Shmuel S. Oren](http://www.ieor.berkeley.edu/~oren/)Earl J. Isaac Chair Professor in the Science and Analysis of Decision MakingPh.D. Stanford University, 1972 Engineering Economic Systems4119 Etcheverry Hall (510) 642-1836 E-mail: orenhttp://www.ieor.berkeley.edu/People/Faculty/images/att.gifieor.berkeley.eduPersonal Webpage: [http://www.ieor.berkeley.edu/~oren](http://www.ieor.berkeley.edu/~oren/) |

"My work focuses on 'Market Engineering', using price and incentive mechanisms for coordination of decentralized complex systems. Market engineering employs economic theory and operations research tools in the same way as mechanical or electrical engineering employ physics and mathematics."

**Dr. Shmuel S. Oren** is Professor of Industrial Engineering and Operations Research at the University of California at Berkeley and former Chairman of that department. Over the last ten years he has served as the Berkeley site director of PSerc - a multi-university Power Systems Research Center sponsored by the National Science Foundation and industry members. Dr. Oren holds B.Sc and M.Sc degrees in Mechanical Engineering from the Technion in Israel and M.S. and Ph.D degrees in Engineering Economic Systems from Stanford University. He is a Fellow of the IEEE Power Engineering System Society and a Fellow of INFORMS.

Research

* Economics, Planning and Operation of Electric Power Systems
* Market Based Coordination of Network Systems
* Energy Economics, Risk Management and Trading Instruments
* Optimization Theory and Application

Publications

* "Self-Scaling Variable Metric (SSVM) Algorithms: Parts I and II."
(with D.G. Luenberger),*Management Science,* 1974.
* "Critical Mass and Tariff Structure in Electronic Communications Markets"
(with S. Smith),*Bell Journal of Economics,* 1981
* "Competitive Nonlinear Tariffs," (with S. Smith and R. Wilson),*Journal of Economic Theory* 1983.
* "Capacity Pricing" (with S. Smith and R. Wilson),*Econometrica,* 1985
* "Nonlinear Pricing to Produce Information," (with D. Braden),*Marketing Science,* 1994.
* "Folk Theorems on Transmission Open Access: Proofs and Counter Examples"
(with F. Wu, P. Varaiya and P. Spiller),*Journal of Regulatory Economics*, 1996
* "Exotic Options for Interruptible Electricity Supply Contracts"
(with R. Kamat),*Journal of Operations Research,* 2002.
* "Ensuring Generation Adequacy in Competitive Electricity Markets", inElectricity Deregulation: Choices and Challenges, Griffin, M. James and Steven L. Puller, editors, University of Chicago Press, June 2005

Ph.D. Theses Supervised

* "Multi-Unit Auctions with Complementaries," Wedad Elmaghrabi, 1998
* "Financial Methods in Competitive Electricity Market," Shijie Deng, 1999
* "The Multiple Intervention Problem: An Application to Preventing Human Immunodeficiency Virus in Injection Drug Users" Ami Wilson, 2000
* "Market Mechanisms in Deregulated Electricity Markets" Rajnish Kamat,, 2001
* "Equilibrium Analysis of Spot and Forward Markets for Energy and Reserves� Afzal Siddiqi, 2002
* "Investment Incentives in the U.S. Electricity Transmission System", Enzo Sauma, 2005
* "Cournot Equilibrium in Two-Settlement Electricity Markets: Formulation and Computation", Jian Yao, 2006
* "Managing Volumetric Risk in Electricity Procurement", Yumi Oum, 2006

# C:\qw\personal\CV\Quiwei Wu.jpg*Name:* QIUWEI WU

## Contact

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## Education

* **Jul. 2004 - Nov. 2009** PhD, Power System Engineering, Nanyang Technological University (NTU), Singapore
* **Sep. 2000 – Apr. 2003** M. Eng., Power System and Its Automation, Nanjing University of Science and Technology, P. R. China.
* **Sep. 1996 – Jul. 2000** B. Eng., Power System and Its Automation, Nanjing University of Science and Technology, P. R. China

## Working Experience

* **Sept. 2013 – Now** Associate Professor, Department of Electrical Engineering, Technical University of Denmark (DTU)
* **Nov. 2013 - Nov. 2013** Visiting Researcher, SINTEF Energy Research, Norway
* **Nov. 2010 – Aug. 2013** Assistant Professor, Department of Electrical Engineering, Technical University of Denmark (DTU)
* **Feb. 2012 – May 2012** Visiting Scholar, Department of Industrial Engineering and Operation Research (IEOR), University of California, Berkeley, USA
* **Oct. 2009 – Oct. 2010** Postdoc, Department of Electrical Engineering, Technical University of Denmark (DTU)
* **Mar. 2008-Oct. 2009** Senior R&D Engineer, VESTAS Technology R&D Singapore Pte. Ltd.
* **Oct. 2007 – Mar. 2008** Electrical Engineer, Squire Mech Consulting Mechanical & Electrical Engineers Pte. Ltd.

## Grants

1. NORSTRAT – Nordic Power Roadmap 2050: Strategic Choices towards Carbon Neutrality (4.5 million NOK for DTU from Nordic Energy Research)
2. Sino-Danish Center for Education and Research (SDC) PhD project “Coordinated Control of Wind Power Plants and Energy Storage Systems” (1.2 million DKK for a fully financed PhD project, and salary and travel cost for supervisors to China from SDC)
3. Locational Marginal Pricing (LMP) and Congestion Management for Electricity Distribution Networks (10.000 DKK for travel and four month research staty in UC Berkeley from Danish Agency for Science, Technology and Innovation)
4. Coordinated Control of Wind Power Plant Clusters for Interconnected Power Systems with High Wind Power Penetration (163.972 DKK from Danish Agency for Science, Technology and Innovation)
5. VSC HVDC connection and control for offshore wind power plants (352.936 DKK from Danish of Agency for Science, Technology and Innovation)
6. Østerild Advanced Grid Test Facility for Wind Power Plants (316.987 DKK for DTU Elektro from GreenLabsDK, the total project budget is 6.1197.000 DKK)
7. Otto Mønsteds Visiting Professorship for Prof. Mohammad Shahidehpour from IIT, USA (210.000 DKK from the Otto Mønsteds Fond)
8. Integrated Microgrid Planning, Operation and Control System with Distributed Generation (165.772 DKK from Danish of Agency for Science, Technology and Innovation)
9. Modelling and Simulation of Wind Power & VSC-HVDC and its Application in Offshore Wind Power Integration (300.000 DKK from the RED Programme)
10. Ideal grid for all (IDE4L) (748.770 Euros from EU Comission, FP7 collaborative project)
11. IDE4L-DK Top-up (2.053.000 DKK from the Forskel programme)
12. Real time wide area measurement and control for sustainable power systems (263.757 DKK from Danish of Agency for Science, Technology and Innovation)

## Selected Journal Publications

1. W. Liu, Q. Wu, F. Wen, J. Østergaard, "Day-Ahead Congestion Management in Distribution Systems through Household Demand Response and Distribution Congestion Prices”, accepted for publication in IEEE Transactions on Smart Grid.
2. Y. Wang, Q. Wu, H. Xu, Q. Guo, H. Sun, "Fast Coordinated Control of DFIG Wind Turbine Generators for Low and High Voltage Ride-Through”, Energies, No. 7, pp. 4140-4156, 2104.
3. R. Li, Q. Wu, S. Oren, “Closure to Discussion on ‘Distribution Locational Marginal Pricing for Optimal Electric Vehicle Charging Management’”, IEEE Transactions on Power Systems, No. 4, Vol. 29, pp. 1867 – 1867, Jul 2014.
4. H. Zhao, Q. [Wu,](http://www.dtu.dk/Service/Telefonbog/Person?id=59284) S. Hu, H. Xu, C. N. Rasmussen, "Review of Energy Storage System for Wind Power Integration Support", Applied Energy, Early access.
5. H. Zhao, Q. [Wu,](http://www.dtu.dk/Service/Telefonbog/Person?id=59284) I. [Margaris](http://www.dtu.dk/Service/Telefonbog/Person?id=52969), J. Bech, P. E. [Sørensen,](http://www.dtu.dk/Service/Telefonbog/Person?id=38456) B. Andresen, "Implementation and Validation of IEC Generic Type 1A Wind Turbine Generator Model", International Transactions on Electrical Energy Systems， Early access.
6. H. Zhao, Q. [Wu,](http://www.dtu.dk/Service/Telefonbog/Person?id=59284) C. N. Rasmussen, M. Blanke, "L1 Adaptive Speed Control of a Small Wind Energy Conversion System for Maximum Power Point Tracking", IEEE Transactions on Energy Conversion, Early access.
7. Y. Ding, M. Xie, Q. Wu, J. Østergaard, "Development of Energy and Reserve Pre-dispatch and Re-dispatch Models for Real-time Price Risk and Reliability Assessment", accepted for publication in IET Generation Transmission and Distribution.
8. Z. Liu, Q. Wu, A. H. Nielsen, Y. Wang, "Day-Ahead Energy Planning with 100% Electric Vehicle Penetration in the Nordic Region by 2050", *Energies*, No. 3, Vol. 7, pp. 1733-1749, 2014.
9. R. Li, Q. Wu, S. Oren, “Distribution Locational Marginal Pricing for Optimal Electric Vehicle Charging Management”, IEEE Transactions on Power Systems, No. 1, Vol. 29, pp. 203 – 211, Jan 2014.
10. Y. Ding, S. Pineda, P. Nyeng, J. Østergaard, E. Larsen and Q. Wu, “Real-time Market Concept Architecture for EcoGrid EU – A Prototype for European Smart Grids”, IEEE Transactions on Smart Grid, No. 4, Vol. 4, pp. 2006 – 2016, Dec. 2013.
11. N. O’Connel, Q. Wu, J. Østergaard, A. H. Nielsen, S. T. Cha and Y. Ding, “Day-ahead Tariffs for the Alleviation of Distribution Grid Congestion from Electric Vehicles”, Electric Power Systems Research, Vol. 92, pp. 106-114, Nov. 2012.
12. Y. DING, P. Wang, L. Goel, P. C. LOH and Q. Wu, “[Long Term Reserve Expansion of Power Systems with High Wind Power Penetration using Universal Generating Function Methods](http://www.elektro.dtu.dk/English/about_us/staff/staff_lists/staff_ees.aspx?lg=showcommon&id=263609)”, IEEE Transactions on Power Systems, Vol. 26, Issue 2, pp. 766-774, May 2011.
13. Q. Wu, P. Wang and L. Goel, “DLC of ACL considering IEAR in restructured power systems”, IEEE Transactions on Power Systems, Vol. 25, Issue 3, pp. 1449-1456, Aug. 2010.
14. L. Goel, Q. Wu and P. Wang, “Fuzzy Logic-Based Direct Load Control (DLC) of Air Conditioning Loads (ACL) Considering Nodal Reliability Characteristics in Restructured Power Systems”, Electric Power Systems Research, Vol. 80, No. 1, pp. 98-107, Jan. 2010.
15. L. Goel, Q. Wu and P. Wang, “Nodal Price Volatility Reduction and Reliability Enhancement of Restructured Power System Considering Demand-Price Elasticity”, Electric Power Systems Research, Vol. 78, No. 10, pp. 1655-1663, Oct. 2008.