**Resume**

Dr. David I-Ho Sun

EDUCATION:

Ph.D. (Major in Power Systems and Minor in Operations Research), University of Texas at Arlington, Arlington, Texas, 1980

M.S., Engineering, Electrical Engineering, Troy, New York, Rensselaer Polytechnic Institute, 1976

B.S., Electrical Engineering, Troy, New York, Rensselaer Polytechnic Institute, 1974

Professional Activities:

* Fellow, IEEE
* Member, ANSI/US-IEC Technical Committee (TC57)
* Invited speaker/panelist on numerous professional conferences

Experience:

2016 to present GE Grid Software Solutions - Redmond, Washington

* **2016 to 2015:** Chief Software Architect, Grid Software Solutions

Business and technology innovation and strategies for power industry transformation

2009 to 2015 ALSTOM - Redmond, Washington

* **2011 to 2015:** Chief Scientist, Alstom Grid, Alstom Grid Senior Fellow, Network Management Solutions (NMS).
* **2009 to 2011:** Chief Scientist, Alstom Power, Power Automation and Controls, Power Information Systems.

1989 to 2009 AREVA/ALSTOM/Cegelec/ESCA - Redmond, Washington

* **2005 to 2009:** Chief Scientist, AREVA T&D, Senior Fellow.
* **2000 to 2005:** Chief Scientist, Manager, Electricity Market Applications.
* Market Management System (MMS) technology evolution; completed major extension and enhancements of market application functions [e.g., MIP-based Security Constrained Unit Commitment (SCUC), advanced Fixed Transmission Rights (FTR).]
* MMS customer-base expansion; established AREVA as the dominant supplier for electricity market solutions [out of the seven Regional Transmission Operators (RTOs) in the United States, five were AREVA MMS customers.]
* **1996 to 2000:** Manager Electricity Market Applications
* MMS business development; led early entry into the market with a combination of successful strategic customer projects (e.g., PJM) and strong presence in industry/professional forums.
* MMS technology development; led development of Market-Clearing applications (e.g., SCUC.)
* **1993 to 1995:** Research and Development (R&D) Program Manager
* **1989 to-1993:** Manager of Sales Application Engineering

1985 to 1988 National Tsing-Hua University - Hsin-Chu, Taiwan

Visiting Professor

1980 to 1985 ESCA Corporation - Bellevue, Washington

Professional/career awards:

* **IEEE Fellow**
* **Alstom Grid Senior Fellow**
* **AREVA T&D Automation Life-Time Achievement Award (2008):** First and only such award given in recognition of outstanding career contribution.
* **AREVA T&D Annual Technical Achievement Award** **(2008):** Highest technical award in T&D, in recognition of successful North China Grid project.
* **Cegelec-ESCA Corporate Contribution Award (1997):** First recipient of the highest level company award, in recognition of successful completion of the strategic New Zealand Electricity Market project
* **IEEE Power Engineering Society Prize Paper Award (1985):** In recognition of innovative application of optimization technology to power system analysis.

Publications

1. David Sun, “Managing the Intelligent Grid”, presentation at the plenary session in the 2015 IEEE PES General meeting, July 2015.
2. David Sun, “Smart Power – Future of Energy Sustainability”, invited speaker at DOE EIA Energy Conference 2011, Washington DC, April, 26, 2011.
3. David Sun, “Challenges with Practical Usage of OPF”, invited speaker at FERC OPF Technology workshop, Washington DC, June 23, 2010.
4. David Sun, “Modeling Resource Operational Flexibility”, invited speaker at FERC Unit Commitment Technology workshop, Washington DC, June 2, 2010.
5. Xingwang Ma, David Sun, Kwok Cheung, “The Application of Optimization Technology for Electricity Market Operation”, presented at the IEEE T&D 2005 Asian Pacific Conference, August 2005.
6. Xingwang Ma, David Sun, “Key Elements of a Successful Market Design”, presented at the IEEE T&D 2005 Asian Pacific Conference, August 2005.
7. Xingwang Ma, David Sun, Andy Ott, “Advanced Financial Transmission Rights in the PJM Market”, presented at the IEEE Summer Power Meeting, June 2003.
8. Xingwang Ma, David Sun, Kwok Cheung, “Evolution towards Standard Market Design”, presented at the IEEE Summer Power Meeting, June 2003.
9. Xingwang Ma, David Sun, Andy Ott, “Implementation of the PJM Financial Transmission Right Auction Market System”, presented at the IEEE Summer Power Meeting, June 2002.
10. Kwok Cheung, Payman Shamsollahi, David Sun, “Energy and Ancillary Service Dispatch for the Interim ISO New England Electricity Market”, IEEE Trans on Power Systems, 1999.
11. Xingwang Ma, Kwok Cheung, David Sun, “Energy and Reserve Dispatch in a Multi-Zone Electricity Market”, IEEE Trans on Power Systems, 1998.
12. Xingwang Ma, David Sun, “Energy and Ancillary Service Dispatch in a Competitive Pool”, IEEE Power Engineering Review, January 1998.
13. T. Alvey, et al, “Security Constrained Bid-clearing for the New Zealand Electricity Market”, Presented at the IEEE PES 1996 Summer Power Conference in Berlin.
14. D.I. Y.Y. Hong, S.Y. Lin and C.J. Lin, "Multi-year Multi-case Optimal VAR Planning", IEEE Trans on Power Systems, Vol. 5, No. 4, pp. 1294-1301, 1990.
15. D.I. Sun, T.I. Hu, G.S. Lin and C.M. Chen, "Experiences with Implementing Optimal Power Flow for Reactive Scheduling in the Taiwan Power System", IEEE Transactions on Power Systems, Vol. 3, No. 3, pp. 1193-1200, 1988.
16. D.I. Sun, B. Ashley, B. Brewer, B.A. Hughes, and W.F. Tinney, "Optimal Power Flow by Newton Approach", IEEE Transactions Vol. PAS-103, pp. 2864-2880, October 1984. Winner of IEEE/PES Prize Paper Award.
17. D.I. Sun, D.R. Farris, R.J. Cote, R.R. Shoults and M.S. Chen, "Optimal Distribution Substation and Primary Feeder Planning via the Fixed Change Network Formulation", IEEE Trans., Vol. PAS-101, pp. 602-609, March 1982.
18. D.I. Sun, and T.M. Athay, "An Improved Energy Function for Transient Stability Analysis", Presented in the IEEE International Symposium on Circuits and Systems, Chicago, April 1981.
19. D.I. Sun, S. Abe, R. Shoults, M. Chen, P. Eigenberger, D. Farris, “Calculation of Energy Losses in a Distribution Feeder", IEEE Trans., Vol. PAS-99, pp. 1347-1356, July/August 1980.
20. D.I. Sun, B. Brewer, and K. Demaree, "Application and Adaptation of Newton for Optimal Power Flow", Application of Optimization Methods for Economy/Security Functions in Power System Operators, IEEE Tutorial course text, #90 EH0328-5-PWR.