Would like to announce….

Designing Smart-Grid Telecommunications Systems via Interval Flow Network Optimization

Presented by

Anthony Klinkert

Doctor of Engineering in Engineering Management Praxis Defense

Advisor: Dr. Richard S. Barr

Friday, April 20, 2018 at 3 p.m.
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Abstract: **Communication networks support utility smart-grids for an electrical power provider by linking devices on the grid, such as residential and commercial customers' electric meters to the utility's data center. A new solution methodology and software tool is applied to the optimization of an electric utility smart-grid communications network. This research provides utilities with a technique to reduce the cost of new and current communications networks for smart-grid programs.**

This research introduces the use of a new advanced optimization heuristic and solver effective for this problem. Interval-flow networks and associated solution methods offer a new approach to modeling and optimization that can readily capture the hierarchical structure of these minimum-cost network-topology optimization problems and can quickly solve large-scale network instances. Computational experiments provide insight into the effect that key situational and practitioner decisions have on resulting designs. This work promises a methodology and tool this is useful to practitioners responsible for smart-grid communications network realization.

Bio: **Anthony (Tony) Klinkert received the B.S.E.E. from The University of Texas at Austin (1979), M.S.E.E (1984) and M.S. Telecommunications Management (1999) from Southern Methodist University in Dallas, Texas. Tony is an award-winning engineering leader assisting companies with strategy, plans, designs, and deployments of networks. Most recently his focus is on the Internet of Things (IoT) networks and supporting technologies of data science, analytics, and optimization. He is an Open Group Certified Master IT Architect, and most recently held the positions of senior IT architect and senior managing consultant for IBM. He has also held leadership and senior positions at MCI, GE, TI, and Motorola. Mr. Klinkert is a Registered Professional Engineer in the State of Texas. He is a member of the *Eta Kappa Nu* honor society, INFORMS, and the Association of Enterprise Architects. He is a senior member of the IEEE. Tony is a public speaker and author of the book *Creating WiMAX* RFPs. He lives in Plano with his wife Susan and two children Lauren and Lawrence.**

Everyone invited and welcome!