Seminar Title: HVDC/FACTS Devices Implementation to Resolve Underlying Power System Stalemate(s) on the GCC Power Grid

Time: Nov 5th, 2012, 3:00 - 4:00 PM
Location: Bullen Room ECE 226

Speaker:
Tariq Masood
Qatar Petroleum
State of Qatar.A.G

Abstract:
The subject workshop encompassed four segments to demonstrate each device operations and control versatility at its defined location on the GCC power grid. A new FACTS-FRAME control technique introduced and investigated an individual (decentralized) and integrated (centralized) control devices operations to determine control these devices capacity and capability on the GCC power grid. The modeling and simulation results will be demonstrated to validate that the HVDC/FACTS devices have a great impact at different locations on the GCC power grid to improve power systems control and operations dynamics in multiple directions.

Seminar Segments:
1. A study on the Gulf Cooperative Council power grid with the STATCOM tailored configuration and its application to the network between Bahrain and Qatar (15 Minutes)
2. Novel Control of a SSSC Connecting the Oman and United Arab Emirates in the GCC power Grid Interconnection (15 Minutes)
3. Novel Control of a UPFC Connecting the Kingdom of Saudi Arabia and Kuwait in the GCC Interconnection (15 Minutes)
4. A study at the GCC power grid with Integrated Multiple HVDC/FACTS controllers tailored configuration and their application (15 Minutes)

Speaker Bio:
Tariq Masood (SM’03) received the M.Eng and Ph.D in Electrical power system engineering (FACTS/HVDC control devices) from the University of Bath, Bath, UK., his fields of specialization are micro level control system engineering, operations, integration by implementing steady, dynamic and real-time precise modeling and simulation techniques. He is a Chartered Engineer and Senior Member of the IEEE-USA and Member of the IET-UK. He is also certified member of the CET International USA and registered member of the ASCET (American Society of Certified Engineers and Technicians) USA. He has also delivered numerous lectures on FACTS Technology at IEEE Qatar Section and various Universities including University of Bath, Bath, UK, and Texas A & M. He is also Lean Six-Sigma Green belt certified in modeling and simulation. He joined the Qatar Petroleum since 1997 where he is currently Production Data analyst. He is/has been on several production department technical and management committees’ member. He has published 15 technical papers in IEEE Conference, Honeywell Users group and other International Conferences. He is the Secretary/Treasurer of the IEEE Qatar Section. He received several awards in recognition of his outstanding performance and dedication to improve Qatar Petroleum production operations and control. He received three Mabrouk Awards which is presented by the MD/Chairman of QP. He also received four Al-Hasba Awards presented by the Director Operations of Qatar Petroleum. He was the secretary for the GCC oil producing companies (QP-Qatar, PDO-Oman ARAMCO-Saudi Arabia, KOC-Kuwait, TATWEER-Bahrain, and ADNOC-United Arab Emirates) Production and Maintenance Technical Committee in 2008 and 2011.