

**Mehdi Etezadi-Amoli, Ph.D., P.E.**

**Professor and Chair**

Department of Electrical and Biomedical Engineering

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**Professional; Experience**

B.S. in Electrical Engineering, 1970, New Mexico State University, Las Cruces, NM.

M.S. in Electrical Engineering, 1972, New Mexico State University Las Cruces, NM.

Ph.D in Electrical Engineering, 1974, New Mexico State University Las Cruces, NM.

**Appointments**

***University***

07/10 - Present Chair, Department of Electrical and Biomedical Engineering (EBME) , University of Nevada, Reno (UNR).

07/88 - Present Professor, EBME Department, UNR. Main areas: Power systems planning, protection and transient analysis, applications of AI to power system problems, and renewable energy applications, analysis, protection, and interfacing.

07/83 - 06/88 Associate Professor of Electrical Engineering, University of Nevada, Reno.

07/77 - 05/79 Assistant Professor of Electrical Engineering, University of New Mexico, Albuquerque, NM

07/75 - 05/77 Assistant Professor of Electrical Engineering, University of New Mexico State University, Las Cruces, NM

***Industry***

06/79 - 06/83 Senior Protection Engineer, Arizona Public Service Company, Phoenix, Az.

Summers 85-98 Senior Engineer, NV Energy (formerly Sierra Pacific Power Company), Reno, NV.

**Five Publications Relevant to the Proposal (*Grad students in bold italics*)**

- ***M. Ghofrani, A. Arabali, M. Etezadi-Amoli***, and M.S Fadali, "A Framework for Optimal Placement of Energy Storage Units Within a Power System with High Wind Penetration," Accepted for publication at the IEEE Transactions on Sustainable Energy.
- ***A. Arabali, M. Ghofrani, M. Etezadi-Amoli***, M.S. Fadali, and Y. Baghzouz, "Genetic-Algorithm Based Optimization Approach for Energy Mangement," Accepted for publication at the IEEE Transactions on Power Delivery.
- ***A. Arabali, M. Ghofrani, M. Etezadi-Amoli***, and Y. Baghzouz, "Ramping Requirements and Operation Cost in a Power System with Dispersed Wind Generation," *Proceedings of the IEEE-PES Society Conference on Transmission and Distribution (T&D) 2012*, Orlando, FL, May 2012.
- ***M. Ghofrani, A. Arabali, M. Etezadi-Amoli***, and Y. Baghzouz, "Operating Reserve Requirements in a Power System with Dispersed Wind Generation," *Proceedings of the IEEE-PES Conference on Innovative Smart Grid Technologies (ISGT)*, Washington DC, Jan. 2012.

- **M. Etezadi-Amoli, K. Choma, J. Stefani**, "Rapid Charge Electric Vehicle Stations" IEEE Transactions on Power Delivery, Vol. 25, no. 3, 1883-1887, 2010.

#### **Five Related Publications** (*Grad students in bold italics*)

- **Ghofrani, M., Arabali, A., M. Etezadi-Amoli**, "Modeling and Simulation of a DFIG-Based Wind-Power System for Stability Analysis," *Proceedings of the IEEE PES General Meeting*, San Diego, CA, July 2012.
- **Ghofrani, M., Arabali, A., M. Etezadi-Amoli**, "Electric Drive Vehicle to Grid Synergies with Large Scale Wind Resources," *Proceedings of the IEEE PES General Meeting*, San Diego, CA, July 2012.
- **S. Jafarzadeh, S. Fadali, M. Etezadi**, "Fuzzy Type-1 and Type-2 TSK Modeling with Application to Solar Power Prediction," *Proceedings of the IEEE PES General Meeting*, San Diego, CA, July, 2012.
- **M. Ghofrani, M. Hassanzadeh, M. Etezadi-Amoli**, and M. S. Fadali, "Smart Meter Based Short-Term Load Forecasting for Residential Customers," *Proceedings of the North American Power Symposium Conference*, Boston, USA, September 2011.
- **M. Etezadi-Amoli, K. Choma, J. Ahmad**, "An Investigation of Select Barriers and Solution for Renewable Energy Deployment," *Proceedings of the IEEE-PES General Meeting*, June 2006.

#### **Synergistic Activities**

- Coordinator for the power grid cluster for the Renewable Energy Center at UNR.
- Member of National Council of Examiners for Engineers and Surveyors. Prepare national exams for professional engineering registration within the country. Also, a Registered Professional Engineer in Nevada.
- Life Senior Member of IEEE, member of IEEE power Engineering Education Committee.
- Reviewer for IEEE Transaction papers on Power Systems, Power Delivery and Smart Grid.
- Developed a number of graduate and undergraduate courses in power systems planning distribution, protection, and transient analysis.
- Member of UNR Faculty Network for Undergraduate Research.
- Member of the Nevada Electric Vehicle Infrastructure Research Task Force.
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#### **Recent Collaborators**

- Nevada State Office of Energy, Albert Keri at ABB, Travis Johnson at NV Energy, Yahia Baghzouz at UNLV, Cansin Evrensoglo at Virginia Tech, John Kleppe and Sami Fadali at UNR

#### **Present Graduate Student Advisor**

- Erik Chalko MS, University of Nevada, Reno
- Erik Madsen MS, University of Nevada, Reno
- Mahmoud Ghofrani, Ph.D., University of Nevada, Reno
- Amir Saman Arabali, Ph.D., University of Nevada, Reno
- Kent Choma, Ph.D., University of Nevada, Reno

#### **Sponsored Research**

Presently funded by NV Energy and NV Renewable Energy Center