Amirreza Sahami | Resumé

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Education

The University of North Carolina at Charlotte **Charlotte**
Ph.D., in Electrical Engineering *2014–Present*
Thesis: Predictive Energy Function Based Transient Stability Assessment and Improvement

Amirkabir University of Technology (Tehran Polytechnic) **Tehran**
M.Sc., in Electrical Engineering *2010–2013*
Thesis: Applying Multiple Inputs-Multiple Outputs Blocks in User Defined Equipment Modeling to Use MATLAB Capabilities

Shiraz University of Technology **Shiraz**
B.Sc., in Electrical Engineering *2005–2010*
Thesis: Designing a Fuzzy Controller to control an Under Load Tap Changer

Areas of Interest

- Power System Dynamics, stability and Control
- Power System Operation and Monitoring
- Computer Applications in Power Systems
- Renewable Energy, Smart Grids and Micro Grids

Computer Skills

Programming: C++, C, MATLAB, Python, Fortran, Pascal, Qbasic

Engineering Software: PSS/E, PowerWorl, PASHA, PSCAD, EMTP-RV, Cyme, MATLAB

General Software: Microsoft Windows, MSDOS, NC, Microsoft Office, Latex

Experience

The University of North Carolina at Charlotte **Charlotte**
Graduate Research Assistant: *2017–Present*

- Modeling Ieee 39 bus test system, and Ieee 9 bus test system in software packages such as PSS/E, PowerWorld, and PASHA, and performing transient stability analysis, and contingency analysis
- Developed a general load-flow and energy function calculation code in MATLAB
- Modeled PV in PSCAD
- Modeled Kundur two area system and studying the small signal stability and transient stability in Simulink
- Applied adaptive controller on IEEE 39 bus system in Simulink
- Studied a distribution system with presence of different PV sources in Cyme
- Studied generators' damping effect on transient stability in PASHA
- Developed System Identification codes in MATLAB

The University of North Carolina at Charlotte **Charlotte**
Graduate Teaching Assistant: *2014–2017*

- Teacher Assistant for Network theory course
- Instructor for Instrumentation and Network Theory Lab.
- Instructor for Systems and Electronics Lab.
- Instructor for Digital Design Lab.
- Instructor for Electromagnetic and Electronic Devices Lab.

Amirkabir University of Technology (Tehran Polytechnic) **Tehran**
Graduate Intern at Power System Analysis Lab. *2010–2014*

- Developed Fortran code to make a dynamic interaction between two power system analysis software
- Prepare a tutorial booklet for PASHA software pack
- Teaching "PASHA" Power System Analysis Software
- Developed Fortran code to make a Real-Time Simulation in POUYA software
- Simulating and Studying different power networks

Kermanshah Oil Refinery **Kermanshah**
Intern at Kermanshah Oil Refinery *2009*

- Working in Electrical Engineering Department

Honors and Awards

2018: Best Paper Award, The Power and Energy Conference at Illinois

2017: Elected to participate in Karlsruhe Institute of Technology(KIT-Germany)/Energy Production and Infra-structure Center(EPIC-USA) Transatlantic Energy Research Experience(TE-REx)

2014-Present: Awarded GASP (Graduate Assistant Support Plan) for 10 semesters

Publications

- A. Sahami and S. Kamalasadan, "Prediction and Enhancement of Power System Transient Stability Using Taylor Series," 2018 North American Power Symposium (NAPS), Fargo, ND, 2018
- A. Sahami, R. Yousefian,and S. Kamalasadan, "An Approach Based On Potential Energy Balance For Transient Stability Improvement in Modern Power Grid", in The Power and Energy Conference at Illinois, Champaign, 2018
- S. M. Mazhari, A. Sahami, S. M. Kouhsari, "A Large-Change Sensitivity Based Approach for Distributed Harmonic Resonance Assessment in Multi-Area Interconnected Power Systems", in The Power and Energy Conference at Illinois, Champaign, 2018
- A. Sahami, S. M. Kouhsari,"Making a Dynamic Interaction Between Two Power System Analysis Software," in 49th North American Power Symposium (NAPS), Morgantown, West Virginia, USA, 2017
- S. Geraee, M. Shafiei, A. Sahami, S. Alavi, "Position Sensorless and Adaptive Speed Design for Controlling Brushless DC Motor Drives", in 49th North American Power Symposium (NAPS), Morgantown, West Virginia, USA, 2017
- R. Yousefian, A. Sahami and S.Kamalasadan, "Hybrid Transient Energy Function-Based Real-Time Optimal Wide-Area Damping Controller," in IEEE Transactions on Industry Applications, pp. 1506-1516, 2017
- R. Yousefian, A. Sahami and S.Kamalasadan, "Hybrid energy function based real-time optimal wide-area transient stability controller for power system stability", IEEE Industry Applications Society Annual Meeting, 2015