



Research Interest

- Power plant technology
- Power System Dynamics & Control
- Power System Quality
- Power System Operation
- Smart Grid

Education

- **M.Sc. 2004-2006 Power Electronics & Machines, Department of Power, Faculty of Electrical Engineering, Sharif University of Technology, GPA: 16.2/20**

Thesis: Coordinated Design of Power System Stabilizer and Automatic Voltage Regulator and Its Limiters

Supervisor: Prof. Ali Mohammad Ranjbar (<http://sharif.ir/~amranjbar/>)

Sponsor: Niroo Research Institute (2005-2006)

- **B.Sc. 2000-2004, Electronics, Department of Electrical & Computer Engineering, Isfahan University of Technology, GPA: 16.8 /20**

Thesis: The Factors Affect in Selecting and Application of energy-efficient motor. **Supervisor:** Dr. Farid Sheikholeslam

Awards

- ***The most brilliant student*** of the year 2005 in Mobarakeh city, Isfahan
- ***Ranked 211***, Nationwide BS program Iran universities entrance exams (out of 1100,000 participants)
- ***Ranked 25***, Nationwide MS program Iran universities

Academic Experiences

- **Full Time Faculty of Power group, Engineering Department, Islamic Azad University-Saveh Branch (Since 2007)**
Courses: Electrical Machines, Power Electronics, Power System Analysis, Linear Control, Circuits & Electronics
Laboratories: Machine Laboratory Member

Research Experiences

- Researching on M.Sc thesis at **Niroo Research Institute (NRI)** in Power System Operation group (2005-2006)
- Researching in the **Power System Research Lab**, Electrical department, Sharif University under the supervision of Prof. Ali Mohammad Ranjbar & Dr.B .Mozafari focusing on Power System Stability and Control (2005-2006)

Publications

- M.jannati, R. Keivanian, “*Precise Modeling of High Impedance Faults in Power Distribution System in EMTPWorks Software*” Science International-Lahore ISI-indexed Journal ISSN# 1013-5316 sent at November 2013
- L. Eslami, R. Keivanian, “*Precise Modeling and Detection of High Impedance Faults in Microgrid System Based on Residual Current Harmonic Analysis*” International Review of Electrical Engineering;Jan/Feb2012, Vol. 7 Issue 1, p3523
- Reza Keivanian, A.H. Vahabi, H.Nademi and A.M.Ranjbar “*Desing a LQG Power System Stabilizer For Bistun Power Plant* ” Australasian Universities Power Engineering Conference (AUPEC 27 – 30 September 2009)
- Hamed Nademi, Ali Farshidnia, Reza Keivanian “*Sensor Fault-Tolerant Scheme for IPM Synchronous Motor Drives via Nonlinear Observer*” Australasian Universities Power Engineering Conference (AUPEC 2009)
- Reza Keivanian, P.Ansarimehr and A.M.Ranjbar “*Coordinated PSS-AVR Tuning based on Participation Factor Indices of Modes*” *Bargh Magazine*, NRI, 2006, No. 15, Vol 2 (in persian)
- Reza Keivanian, H. Kazemi Kargar and E.Khosroshahli “*Implementation Of A Short Circuit*

Industrial Experiences

I&C Designer, Provate Contractor (Since 2007)

- Detail design of hydraulic governor control documents including:
 - Hydraulic P&ID
 - Governor Control System Block Diagram
 - Control Panel electrical schematic diagram
 - Governor Control System Logic Diagram for PLC
 - Philosophy of Control System
- Detail design of Decentralized Control Systems (DCS) including:
 - DCS Architecture Diagram
 - Logic diagrams of Unit Control Boards of generators
 - Metering & Synchronizing Single Line Diagram
 - UCB Arrangement Drawing
 - UCB Electrical Schematic Diagram
- Detail design of auxiliary mechanical system control systems including:
 - P.&I. Diagrams for the following process systems:
 - Cooling water, compressed air, oil handling unit, heating & ventilation (HVAC), domestic water, drainage & dewatering, water level measurement
 - Fuel Gas, Fuel Oil, Inorganic & Sanitary Waste, Instrument & Plant Ari, Nitrogen Distr., Oily Drain Collection Sys., Service & Portable Water, Steam Distr., Steam Letdown
 - Control systems logic diagram for PLC
 - Sizing calculations (Relief valves, thermowells, Control valves, orifice plates), wiring module, Spec. module, Spec. binder, Hookup module via INTOOLS software
 - Instrument Datasheet, Instrument List, Instrument hookup drawing
 - Circuit diagram for control panels

High Voltage Substations, Moshanir Consulting Company (2005-2006)

Check/Approve the following typical documents:

General Layout & Section Drawings, Foundation Plan & Single Line Diagram, Earthing System Plan & Details Drawings of Power Plants, Earthing System Calculations (with coding a Earth System Program)& Electrical Buswork Calculations,

Technical Reports

- "*Classification of Interaction between Controllers in a Large Power System and Comparison the Methods for Coordination between Controllers* ", Niroo Research Institute, Operation System Group, fall 2005. (In Persian)
- "*Evaluation, Analysis and Simulation of a Short Circuit Generator Via a Synchronous Generator for Testing the Law Voltage Switches* ", Niroo Research Institute, Machine Group, summer 2005. (In Persian)

Research Reports

- "*Tuning of a Power System Stabilizer in coordination with Automatic Voltage Regulator Limiters*", Performing, M.Sc Seminar Project, fall 2005 (in Persian)
- "*Comparison of the methods of Planning of the Transmission System and the Considering the Effects of Deregulation as Uncertainty*", Course Project for Power System Reliability, summer 2005. (in Persian)
- "*Economic Dispatch for the Units with the Non-Convex Generation Curve* ", Course Project for Power System Operation, summer 2005. (in Persian)
- "*The Speed Control of a Asynchronous machine by Directly Field Oriented Control of the Rotor Flux* ", Course Project for Power Electronic II, summer 2005. (in Persian)
- "*Identification of Dynamic Parameters in Excitation System by Analytical Methods and Test*" Course Project for Power System Dynamics & Control, summer 2005. (in Persian)
- "*Definition of Synchronous Generator Parameters Using Equivalent Network of its d and q Axis*", Course Project for Theory of Electrical Machines, winter 2004. (in Persian)
- "*Performance of STATCOM Control for Stabilization and Reducing the Effect of Voltage Sag and Swell* ", Course Project for Power Quality, winter 2004. (in Persian)
- "*Design and Simulation of a Switching Power Supply Based on Forward Converter*", Course Project for Power Electronic I, winter 2004. (in Persian)

Skills

- **Language:**
 - English (Fluent in Writing & Reading & speaking)
 - French (Elementry)
- **Software:**
 - Power Engineering: Matlab (Power Toolbox), Neplan, ETAP, EMTP, PSCAD.
 - Industrials: Intools, AutoCAD, Fishner (Control Vale Sizing), FPGA, PLC Programming (S7)
 - Control Engineering: Matlab (Control System, System Identification, Simulink)
 - Electronic Engineering: OrCAD, Pspice
 - Office: Microsoft Office (Word, Excel, Access, Power point, Front Page).

References

- Dr. AliMohammad Ranjbar Professor of Electrical Engineering Department, Sharif University of Technology
Tel: +98(21) 66164339, Email: amranjbar@sharif.edu
Web: <http://sharif.ir/~amranjbar/>
- Dr.Babak Mozafari: Director of Power System Research Laboratory
Email: babakm@mehr.sharif.edu

B.Sc. Selected Courses (out of 20.0)

Course Title	Grade
Physics (Mechanics)	18.8
Physics (Electricity& Magnetic)	18.6
Calculus I	17.4
Calculus II	16.6
C programming	18.7
Engineering Mathematics	20.0
Numerical Analysis	20.0
Electrical Circuit I	18.0
Electromagnetism	19.0
Electrical Machine I	16.5
Electrical Measurement	16.0
Micro Processor	

Course Title	Grade
Electrical Machine II	17.5
Electrical Circuit II	18.0
Signals & Systems Analysis	19.5
Communication I	19.4
Filter& Circuit Synthetic	18.3
Pulse Techniques	17.1
Theory of Linear Control	16.5
Fields & Waves	16.2
Electronic III	17.5
Power Electronics	17.5
Project	19.0

M.Sc. Courses:

Electrical Machine III, Power Quality, Power Electronic I, General Theory of Machines, Power system Dynamics, Power System Reliability, Advance Power System Operation, Controlled AC Drives