

# Ailin Asadi Nejad

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#### Personal

Date of Birth: 26 July 1985 Place of Birth: Shiraz, Iran Marital Status: Single

#### **Education**

- M. Sc. In electrical engineering (September 2007 December 2009) <u>Amirkabir University of Technology, Tehran, Iran</u> (Iranian center of Excellence in Power Engineering and Energy Management) Thesis Title: Optimal Operation of Micro grid with Renewable Energy in Isolated Island Fulfilled with honors and full GPA 4/4
- B. Sc. In electrical engineering (2003 to 2007) <u>Amirkabir University of Technology, Tehran, Iran</u> (Iranian center of Excellence in Power Engineering) Thesis Title: Simulation of internal winding faults of transformers and motors.

## **Research Interests**

- Renewable Energy Systems
- Distributed Generation
- Power Electronic Applications in Renewable Energy Conversion Systems
- Electricity Market
- Power System Analysis
- Hybrid Vehicles
- Optimization Methods

### **Research Experiences**

- Transformer and Motor Fault Current Simulation (B. Sc. Thesis). Spring and Summer 2007 (under supervision of Dr. Kouhsari)
- Optimal Operation of Micro grid with Renewable Energy (M. Sc. Thesis). Summer 2008- to fall 2009 (under supervision of Professor. Abedi)
- Effect of Biomass Utilization for Production of Electrical Energy in Iran (Amirkabir University of Technology). Fall 2007- Fall 2008(under supervision of Dr. Ardehali)
- Developing Energy Auditing Software for a House (Amirkabir University of Technology). Fall 2007 (under supervision of Dr. Ardehali)
- Developing Energy Planning Software for Iran (Amirkabir University of Technology). Spring 2008 (under supervision of Dr. Ardehali)
- The Effects of Wind Power in Competitive Electricity Market (Amirkabir University of Technology). Summer 2008 (under supervision of Dr. Hosseinian)
- The Role of Distributed Generation in Power Quality (Amirkabir University of Technology) Fall 2008 (under supervision of Dr. Gharepetian )

# TEACHING EXPERIENCES

- Lecturer for the course "Electric Circuits", EE Dept, Azad University, Iran.
- TA for the course "Special Machine", EE Dept, Amirkabir Univ. of Tech, Prof. J. S. Moghani.
- TA for the course "Electric Machines II", EE Dept, Amirkabir Univ. of Tech, Prof. M. Abedi.

### **Professional Experiences and courses**

- High Voltage Substation Design, GNEC Company, summer 2007- to present (Supervision of Design and Construction of three 400kV Power plant Substations, two 400/63 kV Substations, two GIS substation...)
- Expert Engineer of Control and Protection of High Voltage Substation, GNEC Company, summer 2007- to present
- Apprentice in Hormozgan Regional Electrical Company, summer 2006.
- Supervision of GIS and GIB routine test, Hyundai Company, Ulsan, South Korea, summer 2009
- Training course of "professional excel" with high score, Tehran. Iran, spring 2010
- Training course of "Design and Evaluation of Fiber Optic Cable", Yazd Cable Company, Tehran, Iran, fall 2010
- Training course of "Design and configuration of GE and Siemens Relay", Tehran. Iran. Fall and spring 2008 & fall 2009
- Training course of "Design of Digital System Control of Substations", Tehran. Iran. Fall 2009
- Teaching Mathematics and Physics in High School, Karaj, Tehran, Iran, (Fall 2005-Summer2007)

### Honors

- Ranked 2rd (on the basis of total GPA) among all Energy Management M.Sc. Students of Amirkabir University.
- Ranked 1st (on the basis of total GPA) among M.Sc. Students of Energy Management in fall 2008 semesters.
- Ranked 2rd (on the basis of total GPA) among M.Sc. Students of Energy Management in fall 2007 and spring 2008 semesters.
- A Winner of 10th National Chemistry Olympiad, 2001
- Ranked 110<sup>th</sup> in National Undergraduate Entrance Exam among almost 400,000 applicants, Tehran, Iran, 2003

- Ranked 114<sup>th</sup> in the National Graduate Studies Entrance Exam among almost 30,000 applicants, Tehran, Iran, 2007
- Graduates community of Amirkabir University of Technology Member (Iranian center of Excellence in Power Engineering and Energy Management), since 2007

### **Publications**

- Effect of biomass utilization for power generation, Ailin Asadi Nejad, Morteza Mohamadi Ardehali, Mehrdad Abedi, "Fuel, Energy and Environment National Conference, Tehran, Iran" May 2008
- The Effects of Wind Power in Competitive Electricity Market, Maryam Hassani Variani, Ailin Asadi Nejad, Hossein Hosseinian, "PSC Conference, Iran" Dec 2008
- Analyze the Effect of Using Hybrid Wind/ Biomass System in Iran, Ailin Asadi Nejad, Mostafa Ghafoori Varzane, Mehrdad Abedi, Iran ISI Magazine of NRI (Niroo research institute); fall 2009.
- Improving the technical and social performance of wind energy systems in Iran using biomass-based energy storage, Ailin Asadi Nejad, Mostafa Ghafoori Varzane, Mehrdad Abedi (In Progress)
- Analyzing the Effects of Biomass, PV and Wind Power in Iran Reference Energy System, Ailin Asadi Nejad, Mostafa Ghafoori Varzane, Morteza Mohamadi Ardehali (In Progress)
- Optimization of Hybrid PV/Wind/ diesel/ battery System with PSO Method, Ailin Asadi Nejad, Mostafa Ghafoori Varzane, Mehrdad Abedi (In Progress)

# Software Proficiency

- PSCAD, EMTP, Matlab, Visual Basic, Visual Delphi, Office
- Familiar with PSCAD and EMTP
- Professional Matlab Programming
- Professional Operator for Windows
- Microsoft Office (Excel, Word, PowerPoint, FrontPage)
- Hands on Fortran, Visual Basic and C++ Programming

#### **References**

- Prof. M. Abedi Professor
  Electrical Department
  Amirkabir University of Technology, Tehran, Iran
  Email: <u>abedi@aut.ac.ir</u>
- Dr. G. Riahy Assistance Professor Electrical Department Amirkabir University of Technology, Tehran, Iran Email: <u>gholam@aut.ac.ir</u>
- Dr. H. Hosseinian Associate Professor Electrical Department Amirkabir University of Technology, Tehran, Iran Email: <u>hosseinian@aut.ac.ir</u>
- Dr. M. Ardehali Associate Professor Electrical Department Amirkabir University of Technology, Tehran, Iran Email: <u>ardehali@aut.ac.ir</u>
- H. Bakhtiari Zadeh Referee of Iranian Power System Conference (PSC) since 2005 to present Management of GNEC Company M.sc. of Amirkabir University of Technology, Tehran, Iran Email: <u>hbakhtiarizadeh@ghods-niroo.com</u>

#### In Major Courses

Distributed Generation Renewable Energy Systems Process and Assessment of Energy Consumption Energy Storage Electrical Load Management Economics and Electrical Energy Management Power Quality Energy Planning **Energy Resources** Power System Utilization Power System Analysis 1, 2 Electric Machine 1, 2, 3 Power Transmition Lines Design Substation Design Dielectrics Power system protection Power Plant **Industrial Electronic** Electric Install **Engineer Economics** Thermodynamics Control Systems **Electrical Measurements** Electromagnet Communication Electronics 1, 2 Electrical Circuits 1, 2 Logic Circuits System Analysis

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