

Curriculum Vitae
Sedighehsadat Mirianhosseinabadi

Phone:
(336)317-8657
E-Mail:
smirian@ncsu.edu

Education:

- **PhD Student in Environmental Design, NC State University, Raleigh, NC** (Fall 2012 up to now)
Total Cumulative GPA: **3.92/4**.
- **M. Sc. in low Energy Architecture, University of Tehran, Iran** (2009-2011).
Total Cumulative GPA: **17.97/20**.
- **B. Sc. in Physics, University of Tehran, Iran** (2002-2008).
Total Cumulative GPA: **13.23/20**.
Last two years GPA: **14.43/20**.

Research Interests:

- Energy and Building Design
- Building Science (lighting and day lighting; natural ventilation and air flow; indoor air quality; acoustics)
- Solar energy applications
- Modeling of Building Energy Systems
- Building Performance (Energy & Sustainability)
- Building Envelopes Effects on the Energy Use of Buildings
- Intelligent Approaches in Buildings (Building Energy Management Systems)
- Energy storage

Professional Experience

- **Teaching Assistantship**
 - **Crystal Growth & Semiconductor**, Physics Department, Science Faculty, University of Tehran, Iran (09/2007-2/2008).
- **Work Experiences**
(08/2012 – now), **North Carolina State University, Raleigh-NC**.
 - Research Assistant
(05/2012 – 08/2012), **DesignBuilder USA, Raleigh-NC**.
 - Research Assistant
 - Job Description:
 - Modifying and updating the Construction and material library of the DesignBuilder software for the new version.
- (06/2010 – 12/2011), **Pajooresh Consulting Engineers, Tehran-Iran**.

- Architect
- Job Description:
 - Landscape and Building Design, Plan and layout drawing preparation.
 (06/2009 – 04/2010), **Civil House, Institute of Research & Development, Tehran-Iran.**
- Major Consulter
- Job Description:
 - Council and Individual Conference with the applicants of the Low-Energy Architecture Major.
 (02/2008 – 05/2009), **Rassta Engineers Company, General Contractor Company, Tehran-Iran.**
- Technical office manager
- Job Description:
 - Technical document preparation for tenders, Technical drawing preparation, Technical tracking of projects and Project control.
 (01/2008 – 04/2006), **Personal Instruction in Physics Field, Tehran-Iran.**
- Instructor

Academic Projects & Activities

- (05/2013 – now), Professor S. Cho and S. MirianHosseinAbadi, “*Development of Technologies for Real-Time Performance M&V and Commissioning Using BAS and/or BEMS in Existing Buildings.*” College of Design, NC State University, Raleigh, NC
- (08/2012 – now), Professor S. Cho and S. MirianHosseinAbadi, “*Simulation Modeling of Ground Source Heat Pump Systems for the Energy Performance Analysis of Residential Buildings in the Mid-Atlantic Region.*” College of Design, NC State University, Raleigh, NC
- (02/2013 – now), Professor S. Cho and S. MirianHosseinAbadi, “*Optimizing Roof Functionality In Comercial Buildings.*” College of Design, NC State University, Raleigh, NC
- (09/2012 – 12/2012), Professor S. Cho and S. MirianHosseinAbadi, “*Design of a Sustainable Housing Complex in Haiti through Energy Modeling and Simulation Process.*” College of Design, NC State University, Raleigh, NC
- (11/2010 – 11/2011), S. MirianHosseinAbadi, Professor M. khalajiAssadi, Professor M. RezaiHariri, “*Evaluating the possibility of using underground pipes system as an energy source to acquire part of building’s energy consumption. Case study: Evaluating of the efficiency of the system in an educational building, located in Tehran*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (08/2010 – 11/2010), S. MirianHosseinAbadi, Professor M. khalajiAssadi, “*Performance evaluation and energy management in architecture and urban design in some case studies such as Eco-Laboratory building and Masdar city*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (08/2010 – 11/2010), S. MirianHosseinAbadi, Professor M. Saghafi, Professor M. RezaiHariri, “*Design a sustainable neighborhood (in both micro and macro scales) containing a sustainable school and residential house in the urban design & energy field*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.

- (01/2010 – 05/2010), S. MirianHosseinAbadi, Professor S. Heydari, Professor M. RezaiHariri, “*Design and calculate the Energy consumption of two green buildings in different types of climates, cold and temperate climates, in the energy & architecture field*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (01/2010 – 05/2010), S. MirianHosseinAbadi, Professor Z. Ghiabakloo, “*Use of natural light in educational buildings (schools and libraries)*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (01/2010 – 05/2010), S. MirianHosseinAbadi, Professor B. Aminzadeh, “*A survey on Arcology, architecture & ecology, focusing on Arcosanti project by Paolo Soleri*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (01/2010 – 05/2010), S. MirianHosseinAbadi, Professor M. Farzian, “*A complete survey on arranging walls in buildings, various types, standards and constructional methods of walls.*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (01/2010 – 05/2010), S. MirianHosseinAbadi, Professor M. Soltandoost, “*Design and calculate of heating and cooling load for an educational building plan using appropriate mechanical utilities to achieve the best efficiency.*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (08/2009 – 12/2009), S. MirianHosseinAbadi, Professor Z. Ghiabakloo, Professor R. Fayaz, “*Design a climatical hotel using passive & active energy methods in the energy & architecture field*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (08/2009 – 12/2009), S. MirianHosseinAbadi, Professor S. Heydari, “*A complete survey on traditional residential houses in humid and temperate climate of Gilan in Iran*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (08/2009 – 12/2009), S. MirianHosseinAbadi, Professor S. Heydari, “*Design a residential complex in a site with the slope of 100% using the methods of passive and active solar energy*”, Architecture Department, Fine Arts Faculty, Tehran University, Tehran, Iran.
- (08/2007 – 12/2007), S. MirianHosseinAbadi, Professor M. Alayi, “*A complete survey of crystal growth of Rochelle salt (lab work)*”, Physics Department, Science Faculty, Tehran University, Tehran, Iran.
- (08/2007 – 12/2007), S. MirianHosseinAbadi, Professor A. Ghorbanzadeh, “*A complete survey of Nd:YAG laser*”, Physics Department, Science Faculty, Tehran University, Tehran, Iran.

Publication:

- S. Cho and S. MirianHosseinAbadi, “*Simulation Modeling of Ground Source Heat Pump Systems for the Energy Performance Analysis of Residential Buildings in the Mid-Atlantic Region.*” Accepted in IBPSA Building Simulation conference, August 2013, FRANCE
- S. MirianHosseinAbadi, M. khalajiAssadi, M. RezaiHariri, “*Evaluating the possibility of using underground pipes system as an energy source to acquire part of building’s energy consumption. Case study: Evaluating of the efficiency of the system in an educational building, located in Tehran*”, Published in Honar-Ha-Ye-Ziba: Memary Va ShahrSazi Journal, Volume 3, Issue 46, Tehran, Iran.

Honors and Awards:

- Achieved 3rd rank among 5,000 participants in Low-Energy Architecture at University Graduate Admission Test in 2009.
- Achieved 15th rank among 7,000 participants in Technology & Architecture at University Graduate Admission Test in 2009.
- Associated Degree in Civil Architecture, **Nahavand Higher Education Institute**, Tehran, Iran (2005-2008).

Total Cumulative GPA: **17.50/20**.

Computer Skills:

- **Architecture software:** Proficient in AUTOCAD, ADOBE PHOTOSHOP, GOOGLE SKETCHUP, REVIT ARCHITECTURE; Familiar with 3D MAX.
- **Energy software:** ECOTECT, EnergyPlus, Open Studio, DesignBuilder and MATLAB.
- **General software:** Microsoft office.

References:

- **Soolyeon Cho**, Ph.D. Assistant Professor of Architecture, 304 Kamphoefner Hall, College of Design, North Carolina State University, Raleigh, NC 27695-7701
Email: Soolyeon_cho@ncsu.edu
- **Professor S. Heydari**, Associate professor, Architecture Department, University of Tehran.
Email: shheidary@ut.ac.ir
- **Professor M. Rezaei Hariri**, Full professor, Architecture Department, University of Tehran.
Email: mtrezaee@yahoo.com
- **Professor M. Khalaji Assadi**, Associate professor, Architecture Department, University of Tehran.
Email: mkhassadi@yahoo.com

Hereby, I declare that the information furnished above is true to the best of my knowledge and belief.

Sedighehsadat MirianHosseinAbadi