

Pegah Eshraghi

Architecture/Energy PhD Student
Shahid Beheshti University (SBU), Iran

CONTACT INFORMATION

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Gender: Female

Date of Birth: 26.04.1996

RESEARCH INTERESTS

- Building Energy Efficiency
- Machine Learning
- Smart Buildings and Cities
- Urban Building Energy Modeling
- Human-Centered AI
- Indoor Environmental Quality
- Thermal Comfort

EDUCATION

Jan. 2021 - Present	Doctor of Philosophy in Buildings Shahid Beheshti University , Tehran, Iran Thesis: "Optimal distribution of urban density focusing on environmental and livability indicators" Advisor: Prof. Zahra Sadat Zomorodian Co-advisor: Prof. Behzad MalekpourAsl
2018-2020	Master of Energy and Architecture – MArch, Building Engineering Shahid Beheshti University , Tehran, Iran Overall GPA: 18.13/20 (4/4) Thesis: "Developing a comprehensive framework for assessing the environmental performance of buildings with an emphasis on green schools, (Feasibility of using Artificial Intelligence models)" Advisor: Prof. Mohammad Tahsildoost Co-advisor: Prof. Zahra Sadat Zomorodian
2014-2018	Bachelor of Architecture – BArch, Architecture Ferdowsi University of Mashhad , Mashhad, Iran Overall GPA: 18.13/20 (3.96/4) (Ranked 1 st in Class of 2014)
2010-2014	Diploma in Physics and Mathematics Discipline Farzanegan High School , Birjand, Iran Affiliated with the National Organization for the Development of Exceptional Talents (NODET) Overall GPA: 19.43/20

HONORS & AWARDS

June 2021	Winning the first place in Shahid Beheshti University Science and Technology Park (NOVA) in a group named BSP
Jan. 2021	Granted admission from <i>Talented Student Office</i> of <i>Shahid Beheshti University</i> for PhD studies
Sept. 2018	Granted admission from <i>Talented Student Office</i> of two prestigious Architecture and Building Engineering schools in Iran, <i>Shahid Beheshti University</i> and <i>Ferdowsi University of Mashhad</i> for graduate studies
Sept. 2018	Awarded First Class Honors BArch degree from <i>Ferdowsi University of Mashhad</i> – Ranked 1st , in Cumulative GPA, among 37 students of Architecture, Class of 2014, <i>Ferdowsi University of Mashhad</i>
Sept. 2014	Ranked 1307th , in Iranian National University Entrance Exam among more than 250,000 students
2010	Recognized as talented student in entry exam of NODET among Birjand students for high school

RELATED COURSEWORK

Environmental Control of Building (19.5/20), Building Energy Simulation (18.75/20), Urban Design and Energy (18/20), Architecture Design III - Schools (19.22/20), Building Physics I - Lighting (18.5/20), Building Technology Design (18.75/20), Construction Management (18.93/20), Electrical Acoustics (18.75/20), Steel Structures (18/20), B.Sc. Final Design (18.5/20)

GPA of Relevant Courses: 18.70/20

WORK EXPERIENCE

Aug. 2023 - Present	Research Assistant at National University of Singapore, <i>Department of built environment, Indoor Environmental Quality</i> <i>Supervisor: Prof. Ali Ghahramani</i>
Sept. 2018 - Present	Research Assistant at Shahid Beheshti University, Tehran, Iran <i>Building Group</i> <i>Supervisors: Prof. Mohammad Tahsildoost & Prof. Zahra Sadat Zomorodian</i> The main purpose of my work is creating a framework based on sustainable guidelines helping architects and urban planners easily evaluate their design alternatives at the early stages of design. I use machine learning techniques to make the evaluation process fast and accurate. (Available at https://bspsim.app/)
Oct. 2019 – July 2020	Research Assistant, Iran's National Elites Foundation, Tehran, Iran <i>Project Title: Optimal Design and Construction of Latent Heat Storage System Containing NPCM for Solar Energy System</i> <i>Supervisor: Prof. Rouhollah Ahmadi (Iran University of Science and Technology)</i> We have a team from different areas like chemistry, metallurgy, electrics, energy transformation, and architecture. Our focus is on construction and design of latent heat storage equipped with solar panels with PCM technology. I am responsible for the architecture and energy analysis of the design.
May 2020 - Present	Building Engineer, Building Sustainable Pallet Co., Tehran, Iran <i>Supervisors: Prof. Mohammad Tahsildoost & Prof. Zahra Sadat Zomorodian</i> We are developing a website to provide services like designing, consultation, optimization, giving international certificates and energy labels based on energy, lighting, heat, acoustics, indoor environmental quality, water and waste. I was a product manager for a year and now I work in R&D.

TEACHING EXPERIENCE

Fall 2022	Teaching Assistant , Shahid Beheshti University, Tehran, Iran <i>Course: Renewable Energy in Buildings/ Research Methods for Master Students</i> <i>Instructor: Prof. Pooyan Hashemi Tari</i>
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Spring 2022	Teaching Assistant , Shahid Beheshti University, Tehran, Iran <i>Course: Architecture/Energy Design I for Master Students</i> <i>Instructor: Prof. Mohammad Tahsildoost</i>
Fall 2021	Teaching Assistant , Shahid Beheshti University, Tehran, Iran <i>Course: Architecture/Energy Design II for Master Students</i> <i>Instructor: Prof. Zahra Sadat Zomorodian</i>
Spring 2021	Teaching Assistant , Shahid Beheshti University, Tehran, Iran <i>Course: Architecture/Energy Design I for Master Students</i> <i>Instructor: Prof. Mohammad Tahsildoost</i>
Fall 2019	Teaching Assistant , Shahid Beheshti University, Tehran, Iran <i>Course: Environmental Control of Building</i> <i>Instructor: Prof. Zahra Sadat Zomorodian</i>

PUBLICATIONS

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- [1] **Generation of Whole Building Renovation Scenarios Using Variational Autoencoders**, S.A. Sharif, A. Hammad, *P. Eshraghi*, in *International Journal of Energy and Buildings* [2020]
 - [2] **Optimization of Energy Consumption in Educational Buildings: Shahid Beheshti University Case Study**, S.M. Ahmadi-Soleymani, *P. Eshraghi*, M.S. Mirdamadi, Z.S. Zomorodian, in *Sofeh Magazine, Shahid Beheshti University, Tehran, Iran* [2020]
 - [3] **Study and Analysis of Modern Patterns in Educational Environments' Architecture in Islamic Countries**, *P. Eshraghi*, in *International Conference of Contemporary Architecture and Urban Design in Islamic Countries, Mashhad, Iran* [2018]

TEST SCORES

IELTS Band Score 7.0 *Listening (7.5), Reading (7.0), Writing (7.0), Speaking (7.0)*

Skills

Scientific Tools:	AutoCAD, Adobe Photoshop, SketchUp, Autodesk Revit, Energy Plus, Design Builder, Diva for Rhino, Grasshopper 3D and Energy Analysis Plug-ins
Programming Languages:	Familiar with Python
Operating Systems:	Windows
Typesetting:	Microsoft Word

ACTIVITIES

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- Attend in The NUS Venture Initiation Programme (VIP) with the idea of learn the behaviors of occupants and promote the energy-efficient actions in a highly personalized way, and through an engaging mechanism, like gamification, Singapore, 2021.
 - Member of Green University Chapter of Civil Deputy at *Shahid Beheshti University, Iran, 2019*.
 - Elected Member of Students Scientific Chapter, Department of Architecture, *Ferdowsi University of Mashhad, Iran, 2015*.
 - Organizing Committee Member, National Festival of Motion, *Mashhad, Iran, 2015*.
 - Organizing Committee Member, 1st International Conference of Contemporary Architecture and Urban Design in Islamic Countries, *Mashhad, Iran, 2018*.
 - Building Committee Member, Replica and Presentation of Comprehensive Design of Ferdowsi University of Mashhad, *Mashhad, Iran, Summer 2017*.