

Kiana Haghighatnejad Chobari

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ACADEMIC PROFILE

Architect and researcher and in building energy performance and climate-responsive design with dual master's degrees from Politecnico di Torino and Tehran Art University. My research focuses on building performance simulation, renewable energy integration, and data-driven optimization of energy efficiency under climate change conditions. I have published in Q1 journals and contributed to interdisciplinary research projects across Europe and Iran, with strong expertise in simulation tools and environmental analysis.

EDUCATION

M.Sc. in Environmental and Land Engineering (Climate Change Track)

Politecnico di Torino, Italy | 2022 – 2024

Thesis: Assessing the Impact of Climate Change and Remote Sensing for Urban Heat Island Mitigation in Turin

M.Sc. in Energy Architecture

Tehran Art University, Iran | 2017 – 2020

Thesis: Use of Augmented Reality to Guide Occupants in Reducing Building Energy Consumption

B.Sc. in Architecture

University of Guilan, Iran | 2011 – 2015

RESEARCH INTERESTS

- Building energy modeling, simulation, and performance optimization
- Climate-responsive design and urban heat island mitigation strategies
- Integration of renewable energy systems in buildings (BIPV)
- Data-driven approaches and machine learning for energy and environmental analysis

TECHNICAL SKILLS

- **Building Performance & Environmental Simulation**
Ladybug, Honeybee, Dragonfly, Butterfly, Revit Insight
- **Programming & Data Analysis**
Python, C#, RapidMiner (Data Analysis), Machine Learning (basic)
- **Building Design & Modeling**
Rhino, Grasshopper, Revit, AutoCAD, SketchUp
- **Visualization & Rendering**
Lumion, V-Ray

PUBLICATIONS

Journal Articles

- K. Haghighatnejad Chobari, et al.
A data-driven multi-objective optimization of building energy consumption, indoor discomfort, and CO2 emissions under future climate change and grid decarbonization

Building and Environment (Q1 Journal) — Under Revision

- K. Haghighatnejad Chobari, et al.
[Energy Performance of Building Integrated Photovoltaic High-Rise Buildings: Case Study of Tehran, Iran](#)
Energy and Buildings (Q1 Journal)
- K. Haghighatnejad Chobari, et al.
[Unveiling the impact of Urban Heat Island \(UHI\) effect on photovoltaic panel efficiency: A case study in Mashhad, Iran](#)
Energy Reports (Q1 Journal)
- K. Haghighatnejad Chobari, et al.
[Optimizing Daylight and Ventilation Performance: A Building Envelope Design Methodology](#)
Buildings (Q1 Journal)

Conference Presentations

- [Potential of Saving Electricity Energy in Common Housing by Photovoltaic Panels in Mashhad using Ladybug](#)
6th International Conference on Solar Energy (ICESE 2018)
- [The Effect of Flat Roofing Materials on Building Heating Energy Consumption \(Isfahan Case Study\)](#)
International Conference on Energy Management in Buildings and Related Technologies

Research Experience

- Research Project – Tehran Art University
Developed an augmented reality-based tool to guide users in reducing building energy consumption and CO₂ emissions

Books

- [Computational Fluid Dynamics in Building Design](#) (Translator, English to Persian)
- [Review of Passive Design Strategies in Cooling and Heating](#) (Author)

HONORS & AWARDS

- Certificate for presenting a speech on “Energy and Lighting in building performance simulation” (2022)
- Reviewer for Journal of Solar Energy Research (2021)
- Solar Decathlon Competition – Energy Analyst and Designer (2019)
- Ranked 41st in National M.Sc. Entrance Exam (Top 0.5%)
- Certificate in Efficient HVAC Systems – Delft University (2021)
- Certificate in Energy Demand in Buildings – Delft University (2020)

RESEARCH & PROFESSIONAL EXPERIENCE

Professional Experience

Architectural Designer – STUDIO SARTORI PIAZZI SRL, Bolzano, Italy | May 2026 _ now
BIM designer

Structural Designer & Analyst – MAD Ingegneria srl (Gianni Michelin), Giovo, Italy | May 2025 _ May 2026
Performed structural analysis and design of building systems

- Applied analytical and computational methods for structural performance evaluation
- Collaborated on engineering projects integrating structural and architectural design considerations

Architectural Intern – Turin, Italy | 2023

- Contributed to the design of sustainable urban spaces
- Applied energy-conscious and climate-responsive design strategies

Research Experience

Intern Researcher – **Eurac Research**, Bolzano, Italy | 2024

- Conducted research on building energy efficiency and performance analysis
- Applied simulation tools to evaluate building energy performance

Teaching Experience

Instructor – Industry 4.0 Academy & UpGreenGrade | 2020– Present

- Delivered training courses on energy simulation using Revit Insight
- Taught daylight and lighting simulation methods

Freelance Teaching | Since 2016

- Taught Revit, Photoshop, and IELTS preparation courses

Additional Research Experience

Contributed to development of an online platform integrating Ladybug Tools for building performance analysis
Member of Virtual Reality and Emerging Technologies Lab, Tehran Art University

LANGUAGES

- Persian: Native
- English: Fluent (IELTS 7.0)
- Italian: Upper-intermediate (B2)