

# Curriculum Vitae

**Full Name:** Fatema Mohamed Fathy Ahmed Abdelaziz

**Date of Birth:** 01/02/1990

**Nationality:** Egyptian

**Professional Address:** 1 El-Sarayyat St., Abbasia, Cairo, Egypt

**Mobile:** +201008903236

**Email:** [fatma.fathy@eng.asu.edu.eg](mailto:fatma.fathy@eng.asu.edu.eg)

## Academic Qualifications

- Bachelor's degree, July 2012, Faculty of Engineering, Architecture Department, Ain Shams University, Egypt.
  - *I received an honor's distinction and ranked the first in the entire cohort*
- Master of science in Architecture Engineering, March 2016, Faculty of Engineering, Architecture Department, Ain Shams University, Egypt.

## Research Experience and Employment

I started working as a Teaching Assistant in the department of Architecture at Ain Shams University in September 2012. I have almost four years of research and teaching experience at the academic level.

In January 2016, I have finished my master's thesis entitled "Utilizing Genetic Algorithms and Parametric Design for Efficient Daylighting Performance in Educational Spaces." It involves parametric modeling, performative design, generative systems, and daylighting simulation.

I am interested in parametric design and optimization, and how their integration within the design process could affect envelope designs. This was the incentive behind being proficient at the parametric tool; Grasshopper (GH) and the analysis tool; Diva-for-Rhino for daylighting simulation.

I actively participated in multiple courses and workshops to boost my research skills, and my endeavors resulted in a number of publications.

## Research Skills

- Prepare literature review for publications
- Develop research methodology
- Analyze research results, draw conclusions and recommend further research
- Conduct energy, daylight and glare simulations

## Workshops Attended

- Introduction to Parametric Design [IPD] Grasshopper Workshop, October 2014.
- Parametric Passive Design [PPD] Arkan & IBPSA-Egypt, October 2014.
- Parametric Simulations and Graphs, January 2016.
- I also attended a workshop in Germany from 3-11-2015 through 17-12-2015 through the university cooperation between the Technical university of Munich and Ain Shams University, where the focus was on international and interdisciplinary knowledge sharing to promote material use of wood in connection with the state subsidization of national afforestation programs.

## Published Research

Authorship: Ayman Wagdy; **Fatma Fathy**  
Type of publication: Journal article  
Title: A parametric approach for achieving optimum daylighting performance through solar screens in desert climates  
Journal and page numbers: Journal of Building Engineering, Pages 155–170  
Publisher and ISBN No: Elsevier  
Link: <http://dx.doi.org/10.1016/j.jobee.2015.07.007>

Authorship: **Fathy, F.**; Mansour Y.; Sabry, H.; Abdelmohsen S.; Wagdy, A.  
Type of publication: Paper at conference  
Title: Cellular automata for efficient daylighting performance: Optimized façade treatment.  
Journal and page numbers: Building Simulation Conference 2015 – IBPSA International  
Publish date: December 2015  
Link: <http://www.ibpsa.org/proceedings/BS2015/p2512.pdf>

Authorship: Ayman Wagdy; **Fatma Fathy**, Sergio Altomonte  
Type of publication: Conference Paper  
Title: Evaluating Dynamic Facades by Using New Annual Climate-Based Metrics  
Journal and page numbers: PLEA 2016- Los Angeles  
Conference Date: 11-13 July 2016  
Link: <http://plea2016.org/download/PLEA%20Proceedings%20Volume%202%209-2-2016%20PDF-A.pdf>

Authorship: Ayman Wagdy; **Fatma Fathy**  
Type of publication: Conference Paper  
Title: A Parametric Approach for Achieving Daylighting Adequacy and Energy Efficiency Using Solar Screens  
Journal and page numbers: PLEA 2016- Los Angeles  
Conference Date: 11-13 July 2016  
Link: <http://plea2016.org/download/PLEA%20Proceedings%20Volume%201%209-2-2016%20PDF-A.pdf>

## Research Under Preparation

Authorship: Ayman Wagdy; **Fatma Fathy**, Sergio Altomonte  
Type of publication: Journal Paper  
Title: Dynamic Facade Performance: A Climate-Based Simulation Framework for Daylight Evaluation