Randa Mohamed Ahmed Mahmoud

Assistant Lecturer | Ph.D student | Architect

Personal Information

Date of birth: 17 March 1991
Nationality : Egyptian
Languages : Arabic- English

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Links

https://life.aun.edu.eg/engineering/randa-mohamed-ahmed-mahmoud

https://scholar.google.com.eg/citations?hl=en&user=jSSHLAoAAAAJ&view_op=list_works%3Cfront%3E%3Cnolink%3E%E2%80%8F

Randa MOHAMED | Teacher Assistant | MSc Architectural Engineering, TA Architectural Engineering Dep | Assiut University, Asyūṭ | Department of Architectural Engineering (researchgate.net)

Education

M.SC degree in Architectural Engineering

"Design Framework for Robotic Surgery Ward at Digital Hospitals"
October 2019 - present
Architectural Dep, Faculty of Engineering, Assiut Un, Assiut, Egypt
Preparation courses' degree: 86.8%

Bachelor of Architectural Engineering:

September 2008 – July 2013
Architectural Dep, Faculty of Engineering, Assiut Un, Assiut, Egypt
Grade: Excellent with honor's degree (87.6%)

Work Experience

Assistant Lecturer (Full time)

October 2019 - present
Architectural Dep, Faculty of Engineering, Assiut Un, Assiut, Egypt

- Academic member at Assiut university for teaching undergraduate classes

Demonstrator (Full time)

November 2014 – September 2019
Architectural Dep, Faculty of Engineering, Assiut Un, Assiut, Egypt

Demonstrator (Part time)

November 2015 – September 2018
Interior design Dep , Faculty of Engineering, Assiut Un, Assiut, Egypt

Architect (Part time)

November 2015 – June 2024
Smart Consultant Innovations, Dr. Amr Sayed Hassan, Assiut, Egypt

November 2013 – July 2015
Idea Engineering Consultant, Dr. Mahmoud Morad, Assiut, Egypt

Teaching Experience

- Design Principles
- Visual drawing
- Architectural design 1,2,3,4
- Shadow and perspective
- AutoCad, Revit & 3D Max Modelling
- Working drawing 1,2,3.
- Environmental design & climate
- Building laws and regulations
- Quantities and specification
- Graduation Project

Looking Forward to

Work in the field of environment and sustainable urban design and sustainable building design to solve the architectural problems and make a balance between architectural and environmental needs.

Academic Publications

Optimizing Urban Spaces: A Parametric Approach to Enhancing Outdoor Recreation Between Residential Areas in Riyadh, Saudi Arabia

Abdallah, A.S.H., Mahmoud, R.M.A., Aloshan, M.A. **(2025). Buildings** 2025, 15, 1527. DOI: https://doi.org/10.3390/buildings15091527 . **IF = 3.1, Q2.**

Assessing Mosque Energy Efficiency Using Smart Occupancy Sensors to Mitigate Climate Change in Hot Regions

Abdallah, A.S.H., Mahmoud, R.M.A., Abdelhafez, M.H.H., Aloshan, M.A. **(2025). Buildings** 2025, 15, 935. DOI: https://doi.org/10.3390/buildings15060935 . **IF = 3.1, Q2.**

Multi-objective Approach for Optimizing Buildings' Forms and Kinetic Façades Systems in Offiice Buildings

Mahmoud, R.M.A., Abdallah, A.S.H. **(2024).** MEJ Mansoura Engineering Journal, 49, 1-22. DOI: https://doi.org/10.58491/2735-4202.3134

Assessment of outdoor shading strategies to improve outdoor thermal comfort in school courtyards in hot and arid climates

Mahmoud, R.M.A., Abdallah, A.S.H. **(2022). Sustainable Cities and Society** 86, 104147. DOI: 10.1016/j.scs.2022.104147 . **IF = 10.5, Q1.**

Urban morphology as an adaptation strategy to improve outdoor thermal comfort in urban residential community of New Assiut city, Egypt

Abdallah, A.S.H, Mahmoud, R.M.A. **(2022). Sustainable Cities and Society** 78, 103648. DOI: 10.1016/j.scs.2021.103648 . **IF = 10.5, Q1.**

A New Planning Proposal for Achieving Residents' Thermal Comfort in Hot arid Climate- based on simulation model

Eid M.A. , Mahmoud, R.M.A., Abdallah, A.S.H. **(2023).** MEJ Mansoura Engineering Journal, 48, 1-16. DOI: https://doi.org/10.58491/2735-4202.3075

Investigation of Greening Façade and Retrofitting strategies on Outdoor Thermal Comfort and Indoor Energy Consumption in New Assiut City, Egypt

Abdallah, A.S.H, Mahmoud, R.M.A. **(2023).** MEJ Mansoura Engineering Journal, 48, 1-15. DOI: https://doi.org/10.58491/2735-4202.3082

Sustainable Solutions for the Open Spaces of the New desert Egyptian Cities with Considering the Climate Change

Abdallah, A.S.H, Mahmoud, R.M.A. **(2022).** Arts and Architecture Journal, 3 (2), 159-173. DOI: https://doi.org/10.21608/aaj.2022.275005

A Computational Framework for Supporting Architectural Education of Spaces' furnishing Design.

Mahmoud, R.M.A. Youssef, A.M.A. **(2022). International Journal of Architectural Computing**,1-32. DOI: 10.1177/14780771221097683 . **IF = 1.6, Q1.**

Design framework for robotic surgery wards at hospitals: Computational implementation.

Mahmoud, R.M.A. Youssef, A.M.A. **(2020). Frontiers of Architectural Research** (2020) 9, 514-540. DOI: 10.1016/j.foar.2020.05.002 . **IF = 3.1, Q1.**

Architectural Comparative Analyses between Robotic Surgery Wards in Digital Hospitals and Traditional Surgery Wards in Conventional Hospitals.

Mahmoud, R.M.A., Youssef, A.M.A, Abdel Karim, N.M. **(2020).** Journal of Engineering Sciences 48(2):248-264. DOI: 10.21608/jesaun.2020.135249 . **IF = 0.7.**

Comparative Analyses of Computational Implementations for Healthcare Building Design.

Mahmoud, R.M.A., Abdel Karim, N.M, Youssef, A.M.A. **(2019).** Journal of Engineering Sciences 47(No.5):627-643. DOI: 10.21608/jesaun.2019.115729 . **IF = 0.7.**

h-index = 3
(Until May 2025)

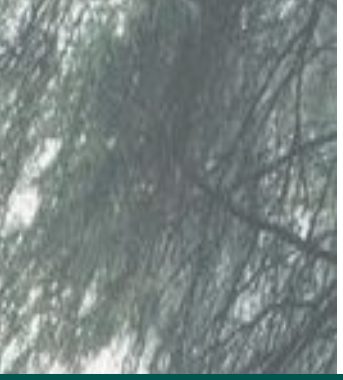
Technical Strength

Simulation software
Advanced Level ●●●

Design builder · Envi-met · EnergyPlus · Openstuido

Modelling software
Advanced Level ●●●

AutoCad · 3D Max · Revit · Rhino · Grasshopper · Sketch up



Technical Strength

Programming software
Intermediate Level ●●○

MATLAB Python

Visualization software
Advanced Level ●●●

Lumion Premiere After Effect Photoshop Microsoft

Academic project

Smart Urban Governance Center (SUGC) for sustainable, resilience, and livable city

January 2021 – December 2023
Architectural Dep, Faculty of Engineering, Assiut Un, Assiut, Egypt

- Collecting and analyzing Database
- Research project funded by Science and Technology Development Fund (STDF) in Egypt-Project No. 45850

Integration of inclined solar chimney with passive cooling technique to achieve low energy building- Phase 1 and Phase 2 (Using PCM material for night cooling).

Phase 1: January 2015 – December 2016
Phase 2: January 2019 – December 2021
Architectural Dep, Faculty of Engineering, Assiut Un, Assiut, Egypt

- Modelling and simulation the base case by DesignBuilder and visualizing and analysis the results
- Research project funded by Science and Technology Development Fund (STDF) in Egypt-Project No. 30067

DAAD project " High Education Dialogue with Muslim Countries", Culture change program

August 2017
Freie University in Berlin and TU of Berlin

Conference and Internship program

The Green Sustainable Future in The Kingdom of Saudi Arabia (GiKS). King Fahd University of Petroleum & Minerals

29th – 30th January 2025
Dhahran, Saudi Arabia

9th International Conference on Climatic Changes, Challenges of Sustainable Development, Current and Advanced Research on Architecture, Art and Heritage(CCRAAH)

6th – 10th October 2022
Marsa Alm, Egypt

Workshop of "Urban heat Island" cooperated with Freie University of Berlin

September 2017 – October 2017
TU Berlin El- Gouna, Egypt

LEED GA V.4 training with Dr. Shady Atia

January 2016
Cairo, Egypt

Architectural professional internship

Nov 2015 : Nov 2016
Smart Consultant Innovations, Dr. Amr Sayed, Assiut

Research Interests

- Developing urban design methodologies and frameworks.
- Urbanism
- Parametric urban design
- Urban climate and Morphology
- Building & urban simulation
- Computational design
- Energy Efficiency in Building
- Parametric Modelling
- Optimization of building forms
- Architectural Urban conditions

References:

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Amr M.A Youssef
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