



Mohamed Hssan Hassan Abdelhafez

Professor - Faculty of Engineering - Aswan University - Egypt

Associate Professor - College of Engineering - University of Hail - KSA

BIOGRAPH

Dr. Mohamed Hssan Hassan Abdelhafez was born in Egypt in 1976. Graduated from Assiut University in 1999 and pursued postgraduate studies at South Valley University. The Master of Science was completed in 2004 through the investigation of the impact of human requirements on the design of urban spaces in Upper Egyptian cities. On behalf of TU-Dortmund University (Germany), the PhD research at Aswan University was finished in 2010, culminating in the development of a simulation model for passive cooling in a hot, desert climate.

The present research interests are centered on the interaction between buildings and outdoor and indoor climate conditions. Specifically, the focus is on passive systems and their impact on energy consumption, comfort, and CO₂ emissions, all of which are related to sustainability. In addition, the research is directed toward the environmental design of the building, thermal comfort, and energy efficiency in hot regions; natural ventilation as a passive cooling method; and computational fluid dynamics (CFD) modeling and simulation.

Personal Details

Date of Birth	October 30, 1976
Sex	Male
Nationality	Egyptian
Marital Status	Married (have four daughters)
Religion	Muslim
Military Service	Completed
Address	Department of Architectural Engineering, Faculty of Engineering, Aswan University, Aswan 81542, Egypt
	Department of Architectural Engineering, College of Engineering, University of Hail, Hail 81422, Saudi Arabia
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Academic Qualifications

B.Sc. “Architectural Engineering” with accumulative average grade “Very Good with honour’s degree”, Department of Architectural Engineering, Faculty of Engineering, Assiut University, June 1999.

M.Sc. Courses, Department of Architectural Engineering, Faculty of Engineering, Assiut University, June 2000.

- 1- Urban Planning
- 2- Urban Economics
- 3- Desert regions planning
- 4- Housing

M.Sc. in “Architectural Engineering” Department of Architectural Engineering, Faculty of Engineering, South Valley University, Aswan, Egypt, June 2004. The thesis entitled as **“The Effect of Human Needs on Design of Urban Spaces in Upper Egypt Cities - Aswan City for Example.”**

Ph.D. in “Architectural Engineering” Department of Architectural Engineering, Faculty of Engineering, Aswan University, Aswan, Egypt, on behalf of TU Dortmund University, Dortmund, Germany, December 2010. The thesis entitled as **“Development of Building Simulation Model for Passive Cooling in Hot Desert Climate.”**

Career Description

Demonstrator:

March 2000 : December 2004, Department of Architectural Engineering, Faculty of Engineering, South Valley University, Aswan, Egypt.

Teaching Assistant:

December 2004 : February 2011, Department of Architectural Engineering, Faculty of Engineering, South Valley University, Aswan, Egypt.

Visiting Scholar:

June 2007 : June 2009, Department of Building Physics, Faculty of Civil Engineering and Architecture, TU Dortmund University, Dortmund, Germany.

Assistant Professor:

February 2011 : October 2018, Department of Architectural Engineering, Faculty of Engineering, Aswan University, Aswan, Egypt.

Visiting Researcher:

November 2015 : May 2016, Department of Building Physics, Faculty of Civil Engineering and Architecture, TU Dortmund University, Dortmund, Germany.

Associate Professor:

October 2018 : October 2024, Department of Architectural Engineering, Faculty of Engineering, Aswan University, Aswan, Egypt.

Professor:

October 2024 : Present, Department of Architectural Engineering, Faculty of Engineering, Aswan University, Aswan, Egypt.

Assistant Professor:

February 2019 : May 2023, Department of Architectural Engineering, College of Engineering, University of Hail, Hail, KSA.

Associate Professor:

May 2023 : Present, Department of Architectural Engineering, College of Engineering, University of Hail, Hail, KSA.

Design skills

- Energy efficient design for present and climate change scenarios.
- Passive and Green Architectural design.
- Environmental thermal impact assessment for built environments.
- Energy efficient urban design.
- Sustainable building design.

Computer skills

- OS windows and some other software Packages.
- Good command of Microsoft Office™ tools (Holds an ICDL certificate, syllabus version 3.0, 2006).
- Excellent skills using AutoCAD, Photoshop, and SketchUp.
- Excellent skills using TRNSYS, and COMIS simulation program.
- Excellent skills using Autodesk CFD simulation program.
- Excellent skills using some energy and climatic simulation programs.

Languages skills

- Arabic language: Mother tongue
- English language: Very good
- German language: good

Organisational / Managerial skills

October 2013 : October 2015, Acting Head of Department of Architectural Engineering, Faculty of Engineering, Aswan University, Aswan, Egypt.

October 2013 : October 2015, Member of the Faculty Council, Faculty of Engineering, Aswan University, Aswan, Egypt.

March 2015 : October 2015, Member of the Engineering Studies and Consultations Centre Council, Faculty of Engineering, Aswan University, Aswan, Egypt.

September 2016 : February 2019, Head of the committee of heritage conservation, Aswan Governorate, Egypt.

March 2011 : March 2012, Head of building assessment committee, Academic Accreditation of Power Electrical Engineering Program, Faculty of Engineering, Aswan University, Aswan, Egypt.

March 2017 : February 2019, Coordinator of Academic Accreditation Committee of Architectural Engineering Program, Faculty of Engineering, Aswan University, Aswan, Egypt.

September 2019 : Present, Quality Coordinator of Architectural Engineering Program (Fully accredited by ABET, 2024-2030), College of Engineering, University of Hail, Hail, KSA.

September 2019 : May 2022, Coordinator of COOP, Department of Architectural Engineering, College of Engineering, University of Hail, Hail, KSA.

September 2019 : Present, Coordinator of ARE website, Department of Architectural Engineering, College of Engineering, University of Hail, Hail, KSA.

September 2021 : Present, Quality Coordinator of Master of Facilities Engineering & Management Program (Fully accredited by ABET, 2025-2030), College of Engineering, University of Hail, Hail, KSA.

Consultation & Services

- Member of Egyptian Engineers Syndicate.
- Member of a scientific team of the research project, 2004, entitled as *"Medium and Small Sized Towns Extrusive Development Methodology in The South Upper Egypt."*
- Member of Aswan University team of the joint European TEMPUS project, 2012, entitled as *"530611-TEMPUS-1-2012-1-IT-TEMPUS-JPCR, Green Innovation, and Entrepreneurship Programme – GIEP"*
- Member of Engineering Studies and Consultations Centre, Faculty of Engineering, Aswan University.
- associated with designing many projects, Aswan University as follow:
 - *The design of the layout of the main administration building at Sahary Campus, Aswan University.*
 - *Associated with the design of interior spaces of the main administration building at Sahary Campus - Aswan University.*
 - *Design building of lecture halls at Faculty of Education – Aswan University.*
 - *Design building of Faculty of Linguistics – Aswan University.*
 - *Design building of Faculty of Tourism – Aswan University.*
 - *Development the building of Aswan Hospital.*
 - *Associated with the planning of new campus at New Aswan City - Aswan University.*
 - *Development and Redesign of Police Club – Aswan.*
 - *Redesign and conversion of traffic administration building to sustainable building at New Aswan City.*

Research interests

Communities should be adjusted to the immediate and long-term impacts of climate change. People are increasingly recognizing these themes as they realize the benefits of utilizing diverse urban forms. The interdisciplinary character of urban climate research has directed the application of climatic knowledge in architectural design, urban planning, and practical design studies. These issues ignited my interest in the built environment and its interplay with outdoor-indoor temperature conditions to assess the thermal influence of passive systems on comfort, energy consumption, and CO₂ emissions, all of which contribute to sustainability to varying degrees.

Other interests:

- Environmental design of buildings.
- Thermal comfort & energy efficiency in hot climates.
- Natural ventilation as a passive cooling strategy.
- Sustainable urban design.
- Computational Fluid Dynamics (CFD) modelling and simulation.

Website address

Google Scholar: <https://scholar.google.com/citations?user=Yvnl5lwAAAAJ&hl=en>
ORCID: <https://orcid.org/0000-0002-5201-272X>
Scopus Author ID: [57203248165](https://orcid.org/0000-0002-5201-272X)
Web of Science Researcher ID: [AGZ-3338-2022](https://orcid.org/0000-0002-5201-272X)
SciProfiles: <https://sciprofiles.com/profile/1399374>

1. **Hassan, M. H.** (2012). **Ventilated Courtyard as a Passive Cooling Strategy in the Hot Desert Climate.** *33rd AIVC Conference "Optimising Ventilative Cooling and Airtightness for [Nearly] Zero-Energy Buildings, IAQ and Comfort" aivc.org.* Retrieved from [https://www.aivc.org/sites/default/files/6 AIVC Conference Paper 2012.pdf](https://www.aivc.org/sites/default/files/6%20AIVC%20Conference%20Paper%202012.pdf)
2. Abd Elrady, A. R., & **Hassan, M. H.** (2015). **Conservation of Morphological Characters as an Approach to Thermal Comfort.** In *Vernacular Architecture: Towards a Sustainable Future - Proceedings of the International Conference on Vernacular Heritage, Sustainability and Earthen Architecture* (pp. 15–20). Taylor and Francis - Balkema.
3. Mahmoud, A. R. A., Aly, A. M., & **Hassan, M. H.** (2015). **Evaluating the Thermal Performance of Urban Spaces in Aswan City "A Case Study of Saad Zaghloul Street".** *JES. Journal of Engineering Sciences*, 43(5), 766–782. <https://doi.org/10.21608/jesaun.2015.115227>
4. Mahmoud, A. R. A., Aly, A. M., & **Hassan, M. H.** (2016). **Simulation as a Tool to Enhance the Thermal Performance of Urban Spaces under Climate Change – A Case Study of Saad Zaghloul Street – Aswan City – Egypt.** *The 8th International Conference on Environment and Development in the Arab World, Assiut University, Assiut, Egypt.*
5. Shaban Abdel Kader, H., **Hssan Hassan, M.**, & Mohamed Aly, A. (2017). **Thermal Performance of Traditional and Modern Nubian House - Comparative Study.** *JES. Journal of Engineering Sciences*, 45(4), 533–544. <https://doi.org/10.21608/jesaun.2017.116347>
6. Shaban Abdel Kader, H., & **Hssan Hassan, M.** (2017). **Improving the Thermal Performance of Modern Nubian House (Wadi Karkar as a Case Study).** *JES. Journal of Engineering Sciences*, 45(4), 545–557. <https://doi.org/10.21608/jesaun.2017.116348>
7. **Abdelhafez, M. H. H.** (2018). **The Strategy of Developing the Industrial Regions as a Tool to Improve the Environmental Impact of New Cities in Egypt.** *The 9th International Conference for Development and Environment in the Arab World, Assiut University, Assiut, Egypt.*
8. Ahmed, K. A., & **Abdelhafez, M. H. H.** (2018). **Partnership Strategy for the Development and Implementation of Housing Projects in Arab Societies (Egypt for example).** *The 9th International Conference for Development and Environment in the Arab World, Assiut University, Assiut, Egypt.*
9. **Abdelhafez, M. H. H.** (2018). **Green Residential Districts in Hot Desert Climate Towards Low Energy Consumption.** *Journal of Engineering and Applied Science*, 65(1), 1–21.
10. **Hssan Hassan Abdelhafez, M.** (2018). **The Degree of Urban Patterns Compactness as a Passive Cooling Strategy in Hot Desert Climate "Wadi Karkar Villages – Aswan as a Case Study".** *JES. Journal of Engineering Sciences*, 46(5), 617–629. <https://doi.org/10.21608/jesaun.2018.114995>
11. Mohamed Aly, A., **Hssan Hassan, M.**, Rajab Abd Elrady, A., & Tarek Mohammed, D. (2020). **The Effect of Using Nano-Materials in External Openings on Energy Consumption in Hot Desert Climate.** *JES. Journal of Engineering Sciences*, 48(3), 468–477. <https://doi.org/10.21608/jesaun.2020.108952>
12. Abdul Sami Eid, M., **Hssan Hassan, M.**, Rajab Abd Elradi, A., & Muhammad Othman, I. S. (2020). **Evaluation of Hybrid Ventilation Efficiency to Improve the Indoor Air Quality for Patients' Rooms in Hospitals of Aswan City.** *JES. Journal of Engineering Sciences*, 48(1), 154–168. <https://doi.org/10.21608/jesaun.2020.135091>
13. Alfraidi, Y., Alzahrani, S. M., **Abdelhafez, M. H. H.**, & Boussabaine, H. (2020). **Impact of Endogenous Risk Factors on Risk Cost in PPP Projects in Saudi Arabia.** *Engineering, Technology & Applied Science Research*, 10(4), 6087–6091. <https://doi.org/10.48084/etasr.3462>

14. Alfraidi, Y., Alzahrani, S. M., **Abdelhafez, M. H. H.**, Noaime, E. M., & Mohamed M. A. S. (2020). **Impact of Political Risk on Construction Cost in PPP Project in KSA.** *International Journal of ADVANCED AND APPLIED SCIENCES*, 7(5), 6–11. <https://doi.org/10.21833/ijaas.2020.05.002>
15. Noaime, E., Osman, A., Said, M. A., Abdullah, G., Touahmia, M., Nasser, Y., ... **Hassan, M. H.** (2020). **A Short Review of Influencing Factors of Islamic Architecture in Aleppo, Syria.** *Engineering, Technology & Applied Science Research*, 10(3), 5689–5693. <https://doi.org/10.48084/etasr.3447>
16. **Abdelhafez, M. H. H.**, Touahmia, M., Noaime, E., Albaqawy, G. A., Elkhayat, K., Achour, B., & Boukendakdji, M. (2021). **Integrating Solar Photovoltaics in Residential Buildings: Towards Zero Energy Buildings in Hail City, KSA.** *Sustainability*, 13(4), 1–19. <https://doi.org/10.3390/su13041845>
17. Abdelrady, A., **Abdelhafez, M. H. H.**, & Ragab, A. (2021). **Use of Insulation Based on Nanomaterials to Improve Energy Efficiency of Residential Buildings in a Hot Desert Climate.** *Sustainability*, 13(9). <https://doi.org/10.3390/su13095266>
18. Alkahtani, M., Hu, Y., Alghaseb, M. A., Elkhayat, K., Kuka, C. S., **Abdelhafez, M. H.**, & Mesloub, A. (2021). **Investigating Fourteen Countries to Maximum the Economy Benefit by Using Offline Reconfiguration for Medium Scale PV Array Arrangements.** *Energies*, 14(1). <https://doi.org/10.3390/en14010059>
19. Boukendakdji, M., Touahmia, M., Achour, B., Albaqawy, G., **Abdelhafez, M. H. H.**, Elkhayat, K., & Noaime, E. (2021). **The Effects of Steam-Curing on the Properties of Concrete.** *Engineering, Technology & Applied Science Research*, 11(2), 6974–6978. <https://doi.org/10.48084/etasr.4014>
20. Ahriz, A., Mesloub, A., Elkhayat, K., Alghaseb, M. A., **Abdelhafez, M. H.**, & Ghosh, A. (2021). **Development of a Mosque Design for a Hot, Dry Climate Based on a Holistic Bioclimatic Vision.** *Sustainability*, 13(11). <https://doi.org/10.3390/su13116254>
21. Hnaien, N., Hassen, W., Kolsi, L., Mesloub, A., Alghaseb, M. A., Elkhayat, K., & **Abdelhafez, M. H. H.** (2022). **CFD Analysis of Wind Distribution around Buildings in Low-Density Urban Community.** *Mathematics*, 10(7), 1118. <https://doi.org/10.3390/math10071118>
22. Ahriz, A., Mesloub, A., Djefal, L., Alsolami, B. M., Ghosh, A., & **Abdelhafez, M. H. H.** (2022). **The Use of Double-Skin Façades to Improve the Energy Consumption of High-Rise Office Buildings in a Mediterranean Climate (Csa).** *Sustainability*, 14(10), 6004. <https://doi.org/10.3390/su14106004>
23. Ragab, A., **Abdelhafez, M. H. H.**, Touahmia, M., Alshenaifi, M., Noaime, E., Elkhayat, K., Alghaseb, M., & Hamdy, O. (2022). **An Assessment of External Wall Retrofitting Strategies Using GRC Materials in Hot Desert Regions.** *Buildings*, 12(8), 1194. <https://doi.org/10.3390/buildings12081194>
24. **Abdelhafez, M. H. H.**, Altaf, F., Alshenaifi, M., Hamdy, O., & Ragab, A. (2022). **Achieving Effective Thermal Performance of Street Canyons in Various Climatic Zones.** *Sustainability*, 14(17), 10780. <https://doi.org/10.3390/su141710780>
25. Noaime, Emad, Mohammed Mashary Alnaim, Mohammed Abdulfattah Bay, Ghazy Abdullah Albaqawy, **Mohamed Hssan Hassan Abdelhafez**, and Khaled Elkhayat (2022). **The Rehabilitation of the Historic Barzan Traditional Market and Its Impact on Cultural Tourism in Hail City.** *Land* 11, no. 11: 2058. <https://doi.org/10.3390/land11112058>
26. Hamdy, Omar, **Mohamed Hssan Hassan Abdelhafez**, Mabrouk Touahmia, Mohammed Alshenaifi, Emad Noaime, Khaled Elkhayat, Mohammed Alghaseb, and Ayman Ragab (2023). **Simulation of Urban Areas Exposed to Hazardous Flash Flooding Scenarios in Hail City.** *Land* 12, no. 2: 353. <https://doi.org/10.3390/land12020353>
27. **Abdelhafez, Mohamed Hssan Hassan**, Ali Abdulmohsen Aldersoni, Mohammad Mansour Gomaa, Emad Noaime, Mohammed Mashary Alnaim, Mohammed Alghaseb,

- and Ayman Ragab (2023). **Investigating the Thermal and Energy Performance of Advanced Glazing Systems in the Context of Hail City, KSA.** *Buildings* 13, no. 3: 752. <https://doi.org/10.3390/buildings13030752>
28. Alshenaifi, M. A., Sharples, S., Abuhussain, M. A., Alotaibi, B. S., Aldersoni, A. A., & **Abdelhafez, M. H. H.** (2023). **Integrating a passive downdraught evaporative cooling tower into a Saudi house - The impact of climatic conditions on PDEC performance.** *Building and Environment*, 242. <https://doi.org/10.1016/j.buildenv.2023.110497>
 29. Abdelkarim, Ashraf, **Mohamed Hssan Hassan Abdelhafez**, Khaled Elkhayat, Mohammad Alshenaifi, Sultan Alfraidi, Ali Aldersoni, Ghazy Albaqawy, Amer Aldamaty, and Ayman Ragab (2024). **Spatial Suitability Index for Sustainable Urban Development in Desert Hinterland Using a Geographical-Information-System-Based Multicriteria Decision-Making Approach.** *Land* 13, no. 7: 986. <https://doi.org/10.3390/land13070986>
 30. Mesloub, A., Hafnaoui, R., **Hassan Abdelhafez, M. H.**, Seghier, T. E., Kolsi, L., Ben Ali, N., & Ghosh, A. (2024). **Multi-objective optimization of switchable suspended particle device vacuum glazing for comfort and energy efficiency in school typologies under hot climate.** *Case Studies in Thermal Engineering*, 61, 105039. <https://doi.org/10.1016/j.csite.2024.105039>
 31. Noaime, E., Alshenaifi, M., Albaqawy, G., Abuhussain, M. A., **Abdelhafez, M. H. H.**, & Alnaim, M. M. (2025). **Beyond Buildings: How Does Sustainable Campus Design Shape Student Lives? Hail University as a Case Study.** *Buildings*, 15(9), 1468. <https://doi.org/10.3390/buildings15091468>
 32. Abdelkarim, A., **Abdelhafez, M. H. H.**, Elkhayat, K., Touahmia, M., Alshenaifi, M., Aldersoni, A., Alfraidi, S., Mesloub, A., and Hamdy, O. (2025). **Integrating Hydrodynamic Modelling and Remote Sensing for Spatiotemporal Analysis of Wadi Thuwal Basin Flood Hazards Affecting the Haramain Train Pathway,** *EGUsphere* [preprint], <https://doi.org/10.5194/egusphere-2025-4>.
 33. Elkhayat, K., **Abdelhafez, M. H. H.**, Altaf, F., Sharples, S., Alshenaifi, M. A., Alfraidi, S., Aldersoni, A., Albaqawy, G., & Ragab, A. (2025). **Urban geometry as a climate adaptation strategy for enhancing outdoor thermal comfort in a hot desert climate.** *Frontiers of Architectural Research*, 14(2), 525-544. <https://doi.org/10.1016/j.foar.2024.08.004>
 34. Abdallah, A. S. H., Mahmoud, R. M. A., **Abdelhafez, M. H. H.**, & Alosan, M. A. (2025). **Assessing Mosque Energy Efficiency Using Smart Occupancy Sensors to Mitigate Climate Change in Hot Regions.** *Buildings*, 15(6), 935. <https://doi.org/10.3390/buildings15060935>

Papers under consideration for publication:

- **Analysis of Energy Conservation Strategies Emphasizing Environmental and Economic Impacts within Higher Education Facilities,** **Mohamed Hssan Hassan Abdelhafez**, Wael Mohammed Al Khmeshi
- **The Influence of Hail University and the Main Roads as Driving Forces of Urban Sprawl in Hail City,** Omar Hamdy, Mohammad Alshenaifi, Emad Noaime, Mohammed Alnaim, Ghazy Albaqawy, Mohammed Abuhussain, **Mohamed Hssan Hassan Abdelhafez**
- **A Parametric Analysis to Maximize the Efficacy of Passive Downdraught Evaporative Cooling Towers for Residential Buildings in Hot Arid Regions,** Mohammad Alshenaifi, **Mohamed Hssan Hassan Abdelhafez**, Steve Sharples, Mohammed Abuhussain, Ali Aldersoni, Khaled Elkhayat, and Ayman Ragab
- **Improvement of Passive Strategies for Building Envelopes to Enhance Energy Efficiency in Hot Desert Climate,** Ali Aldersoni, Amr Sayed Hassan Abdallah, **Mohamed Hssan Hassan Abdelhafez**, Khaled Elkhayat, Mohammad Alshenaifi, Sultan Alfraidi, Ghazy Albaqawy, and Ayman Ragab

Research Projects

PI for the following research projects:

- Spatial Context: Towards a New Climate Morphology of Cities.
- The Open Cities and Urban Development: A Strategy for Capitalizing on Urban Advantages to Improve Quality of Life in Hail City.
- A holistic vision of the integration of city-scale built environment with sustainable development goals and the KSA 2030 vision.
- An Analysis of Energy Conservation Measures Focusing on Environmental and Economic Effects in the Context of Higher Education Buildings.

Co-Investigator for the following research projects:

- Rethinking Sustainable Urban Development in Hail City: Towards an Integrated Planning and Development Process.
- An Approach to Monitor and Evaluate the Sustainable Energy Efficiency of Saudi Buildings Based on the Current and Predicted Climate Conditions.
- The requalification of the historic Barzan market and its impact on cultural tourism in Hail city.
- Energy Efficiency in Buildings through Innovative Architectural Design and Materials.

Training Courses

1. The sixth session to prepare the university teacher, South Valley University, 1 : 12 March 2003.
2. Effective teaching skills, South Valley University, 9 : 13 November 2004.
3. Effective communication skills, South Valley University, 5 : 8 June 2005.
4. Professional ethics and moralities, South Valley University, 25 : 27 September 2005.
5. Scientific Research Methods, South Valley University, 18 : 21 February 2006.
6. ICDL certification (International Computer Driving License), Assiut University, July 2006.
7. Scientific Publications, South Valley University, 14 : 16 March 2010.
8. Time and meetings management, South Valley University, 7 : 9 November 2010.
9. Training course of the joint European TEMPUS project (Green Innovation and Entrepreneurship Program, GIEP), Politecnico di Milano, Milano, Italy, 31 January : 9 February 2014.
10. The educational course for preparing envoys to travel abroad, Institute for Leadership Development, 16 : 20 November 2014.
11. Using Computers and Managing Files, October 2016.
12. Information and Communication, October 2016.
13. Presentations, October 2016.
14. Exams systems and student assessment, Aswan University, 24 : 25 December 2016.
15. How to activate the e-course, Assiut University, 24 : 25 June 2018.
16. Publication of research in international journals, Assiut University, 24 : 25 June 2018.
17. Research Ethics, Luxor University, 27 : 29 January 2024.
18. Scientific Publishing, Luxor University, 30 January : 1 February 2024.
19. Design and Production of E-Courses, Luxor University, 2 : 4 February 2024.
20. Examination Systems and Student Evaluation, Luxor University, 28 : 30 April 2024.
21. Financial and Legal Aspects of University Business, Luxor University, 19 : 21 May 2024.
22. Using Technology in Teaching, Luxor University, 6 : 8 June 2024,

Tutor for the following under-graduate courses in Department of Architectural Engineering, Faculty of Engineering, Aswan University:

- 1- Design Basics & Architectural Drawing
- 2- Architectural Design 2, 3, 4, 5, and 6
- 3- Urban Planning 1
- 4- Working Drawing 1, 2, and 3
- 5- Urban Design
- 6- Environment & Climate Engineering
- 7- History of Architecture 1, and 2
- 8- Building Construction 1, and 2
- 9- Participation in the supervision of the graduation project for undergraduate students at Aswan University.
- 10- Participation in the jury of the graduation project at Aswan University, Assiut University, and Alexandria University.

Tutor for the following under-graduate courses in College of Engineering & Technology, Arab Academy for Science, Technology, Aswan:

- 1- Environmental Control and Energy in Buildings
- 2- Visual Studies 1, 2, and 3
- 3- History of Architecture 1, 2, and 3
- 4- Applications of Computing

Tutor for the following under-graduate courses in Department of Architectural Engineering, College of Engineering, University of Hail:

- 1- Building Construction
- 2- Principles of HVAC
- 3- Working Drawings
- 4- Mechanical Systems

Tutor for the following post-graduate courses in Department of Architectural Engineering, Faculty of Engineering, Aswan University:

- 1- Environment & Climate Engineering
- 2- Housing
- 3- Architectural & Interior Design
- 4- Building Economics
- 5- Applications of Computing
- 6- Sustainable Architecture

Tutor for the following post-graduate courses in Department of Architectural Engineering, College of Engineering, University of Hail (Master of Facilities Engineering and Management):

- 1- Energy Efficiency and Sustainable Systems
- 2- Facilities Planning and Design
- 3- Computer Applications to Facilities Management

Supervisor for the following M.Sc. thesis in Department of Architectural Engineering, Faculty of Engineering, Aswan University:

- Study of applying Thermally Activated Building Systems in hot desert climate "Building in New Aswan city as a case study" – (Finished, 2014).
- Prefabricated buildings and their impact on low-cost housing – (Finished, 2015).
- Assessment thermal performance of the Nubian house "A comparison study between traditional and modern house" – (Finished, 2017).
- Effectiveness of green vertical systems in improving the indoor environment of residential buildings in Upper Egypt "New Aswan city as a case study" – (Finished, 2018).
- Evaluation of hybrid ventilation efficiency to improve the indoor air quality in hospitals of Aswan City – (Finished, 2020).
- The effect of using nanomaterials on energy consumption in residential buildings in hot desert areas "Social housing in the new city of Aswan as an example" – (Finished, 2020).
- A proposed model for improving the thermal performance of streets as an entrance to update the elevation standards in Egyptian cities – (Finished 2023).

Supervisor for the following Ph.D. thesis in Department of Architectural Engineering, Faculty of Engineering, Aswan University:

- Improvement of the thermal performance for urban spaces in Aswan city under future climatic changes – (Finished, 2016).

Supervisor for the following Research Project in Department of Architectural Engineering, College of Engineering, University of Hail (Master of Facilities Engineering and Management):

- Energy Optimization of Building Management Systems: Toward Sustainable Public Facilities.
- Analysis of healthcare facility operation and maintenance costs at public hospitals in Al-Jouf region of Saudi Arabia.
- Optimizing sustainable facility management strategies to enhance energy efficiency in buildings.
- Evaluation of key Performance Indicators for Development, Analysis and Control of Managing Government Facilities in Hail City.
- An Analysis of The Energy Conservation Measures Focusing on Their Environmental and Economic Effects in The Context of Higher Education Buildings: Case Study Sulaiman Alrajhi University.
- Evaluating the reuse of indoor spaces within Educational Facilities: A case study of University of Hail.
- A Comprehensive Evaluation of Thermal Comfort and Energy Efficiency within Educational Facilities: A Case Study of University of Hail.
- Challenges of Implementing Building Information Modelling in the Design Process: A Study of Engineering Companies in Hail City.

Presentations

“Natural Ventilation,” Lecture presented at TU Berlin Campus El Gouna, Hurghada, Egypt, December 2013.

“Revision of Architectural Drawings and Specifications of Materials” Training course presented at National Consulting Bureau, Kuwait office, Kuwait, 2 : 7 May 2015.

Review

- Act as a reviewer in Elsevier journals, Energy and Buildings, Sustainable Cities and Society, and Building and Environment, (since 2016).
- Act as a reviewer in Journal of Engineering Sciences (JES), (since 2020).
- Act as a reviewer in MDPI Journals, (since 2020).