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City, KSA

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EDUCATION

2006 – 2009 Ph.D. in Architectural and Environmental Design of Buildings (Full time)

Dundee School of Architecture, College of Art, Sciences and Engineering, University of Dundee, UK. http://www.dundee.ac.uk/architecture/

Thesis title: Investigating the Environmental Performance of Government Primary School in Egypt: with particular concern to thermal comfort

Supervisors: Prof. Simon Unwin and Mr. Tamer Gado

The research project mainly aimed to passively enhancing the environmental performance of primary classrooms with great concern to thermal comfort and energy efficiency. A pilot study and a main field study in eighteen case studies had been conducted to investigate the environmental performance of their classrooms. The investigation used the observation, the subjective assessment and the objective assessment techniques in order to conduct a Post Occupancy Evaluation (POE). Subjected assessment included conducting interviews and questionnaire with over three hundred school occupants (Children, teachers, head teachers, architects and engineers who responsible for designing and maintaining the school buildings). The objective assessment was conducted for all the parameters affected thermal comfort "weather data, internal air temperature, mean radiant temperature MRT, CO2, air movement and speed, and relative humidity". A parametric analysis for the proposed passive means was conducted. All the case studies were modelled using Autodesk ECOTECT as the main tool of the research. HTB2 as more detailed thermal simulation engine was used to simulate the internal air temperature of the spaces inside the case studies. Results of the research suggested that the proposed passive measures can enhance the thermal performance of the classrooms significantly.

2005 - 2006 M-Phil in Architectural and Environmental Design of Buildings (Full time)

Dundee School of Architecture, College of Art, Sciences and Engineering, University of Dundee, Dundee, UK.

1998 – 2002 M.Sc. in Architectural Engineering (Full time)

http://eng.minia.edu.eg/English/Pages/default.aspx

I year of courses followed with 2 years of research

Architectural Engineering department, Faculty of Engineering, El-Minya University, Egypt

Dissertation title: "Analytical Study for Comprehensive Regional Development "North Sinai as a Case study"

Supervisor: Prof. Mahmoud Noffal, Dr. Ossam Mohamed, and Dr. Mohamed Nabawe

1991 – 1996 B.Sc. in Architectural Engineering

Distinction with Honors

Research by design thesis: Distinction with Honors

Architectural Engineering department, Faculty of Engineering, El-Minya University, Egypt











Final thesis project: International museum for Egyptian heritage in new Minya City

TEACHING EXPERIENCE

I believe in Architecture as the Art and Science of Buildings. My BSc in Architectural Engineering, with my MSc in Sustainability and my PhD in Environmental Design of Buildings helped me in integrating the different engineering disciplines in the architecture design processes including the structure and construction considerations, electromechanical systems, Life safety package, and accessibility, materiality, passive and active systems. Moreover, a three years international training on sustainable teaching funded by the European Union and held in five European countries supported my teaching vision in Architecture. I used to apply Interdisciplinary, Holistic Approach, Inquiry-based learning, Problem oriented, Participatory/interactive teaching approach, Application oriented approached. I am into teaching and I believe that teaching is not only to fill the students' heads by knowledge but also to let them think and to inspire them. To apply the previous teaching strategies, I employed the following techniques and methods in my teaching: Role-plays and simulations, Group discussions, Group works, Stimulus activities, Debates, Mental Maps, Critical Incidents, Case Studies, Critical reading and writing, Problem bases learning, Fieldwork and outdoor learning, Modelling good practice, and E-learning tools. As a result of my passion in teaching. I have achieved the status of Fellow (FHEA) In recognition of attainment against the UK Professional Standards Framework for teaching and learning support in higher education.

In addition to using the climatic analysis software such as: Weather Tool and Climatic Consultant and the simulation software such as: Autodesk Ecotect, Design Builder, HTB2, Energy Plus, in quantifying the effectiveness of the alternative architectural solutions, I participated in establishing several environmental laboratories in the UK at DSA, Egypt and KSA. Recently, I managed to design and establish an Environmental Laboratory "EDoB lab." at Effat University through an external fund by King Abdulaziz City for Science and Technology "KACST", which includes the "Heliodon" a tool for solar and shadowing analysis, the "Artificial Sky" a tool for lighting analysis for quality and quantity, digital micro-station to record the weather climatic data and hand held equipment and loggers to monitor and record all the internal parameter that affect the human thermal, and visual comfort.

2021 to date

Full Professor, Vice Dean of Graduate Studies and Research Dep. of Arch., Faculty of Arch. and Design, Effat University http://www.effatuniversity.edu.sa/Pages/Homepage.aspx

Main duties includes:

- 1. Standard-7 Owner-Research and Innovation,
- 2. Standard-8 Owner- Civic Engagement,
- 3. Member of the NCAAA committee for national accreditation,
- 4. Member of the NAAB Committee for Substantial Equivalency accreditation,
- 5. Member of the Scientific Council, University Council and the Admin Assembly,
- 6. Chair of the Research Council, and the Graduate Studies Council,
- 7. Member of the Research Grant Committee on the university level,
- 8. Teaching the following courses within different semesters:
 - 1. Energy and Design;
 - 2. Colour and Light Principles;
 - 3. Urban Design Thesis;
 - 4. Research methodologies.

2014 to date

Associate Professor, Director of the Smart Building Research Centre (SBRC) Dep. of Arch., Faculty of Arch. and Design, Effat University http://www.effatuniversity.edu.sa/Pages/Homepage.aspx

Main duties includes:

- 1. Chairing Standard-7-Research and Innovation,
- 2. Charing Standard-6_ Facilities and Equipment
- 3. Member of the NCAAA committee for national accreditation,











- 4. Member of the NAAB Committee for Substantial Equivalency accreditation,
- 5. Member of the Scientific Council, Research Council, College Council, and the Department Council,
- 6. Member of the Research Grant Committee on the university level,
- 7. Teaching the following courses within different semesters:
 - 5. Different levels of Architectural Design Studios (101, 102, 204, and 408);
 - 6. Coordinator and instructor for the Comprehensive Design Studio;
 - 7. Energy and Design;
 - 8. Colour and Light Principles;
 - 9. Building Construction;
 - 10. Capstone Preparation and Project;
 - 11. Urban Design Thesis;
 - 12. Urban Project.

2021 to date

Fellow (FHEA), AdvanceHE, UK. I have achieved the status of Fellow (FHEA) In recognition of attainment against the UK Professional Standards Framework for teaching and learning support in higher education. Fellowship reference PR215788, Date of Fellowship 03/08/2021;

2014 to date

Authorised trainee for Education for Sustainability from the European Union and authorized as Professional Trainer for Sustainable Development, Professional Academy for Teachers, Egypt

http://www.educamp.eu/

http://regional-centre-of-expertise.uni-graz.at/en/research/projekte-partner/abgeschlossene-

projekte/educamp/

http://educamp.lfi.rwth-aachen.de/

2013 to date

2013 to date: Expert in Urban Studies (Village level), General Organization of Physical Planning (GOPP)

2009 to Date

Lecturer,

Zagazig Department of Architecture, Faculty of Engineering, Zagazig University http://www.eng.zu.edu.eg/

Main duties included teaching the following courses:

Teaching the following courses:

- 1. Architectural Design Year 3;
- 2. Architectural working Design and Construction Methods Year 3;
- 4. Environmental Control Year 2

2009 to 2011

Visiting Lecture,

6 October High Institute for Architectural Engineering and Business Administration

2006 to date

Instructor (Autodesk Ecotect Analysis),

http://usa.autodesk.com/ecotect-analysis/

- 2006 2009 Dundee School of Architecture, College of Art, Sciences and Engineering, University of Dundee, Dundee, UK.
- 2009 2014 CADMASTER (Authorised Autodesk Training Centre), Cairo, Egypt

2006 to 2009

Assistant lecture (Part time)

Dundee School of Architecture, College of Art, Sciences and Engineering, University of Dundee, Dundee, UK.

Contributed to the development of the EDoB laboratory; and tutoring undergraduate students Year1-5 through using the Environmental Design of Buildings Laboratory within EDoB research unit. This included i) Testing scale models under the Heliodon and the artificial sky ii) Using computer analysis software (Ecotect and Weather Tool) iii) Field studies and data analysis;











2002 – 2005 Assistant lecture (Full time)

Architectural Engineering Department, Faculty of Engineering, Zagazig University, Egypt

Main duties were:

1. Studio tutor for Year 2-5 at the department of architecture for the following course; Architectural Design, Building Construction, Architectural Working Design, Architectural Drawing, Surveying, Urban Design and Urban Planning, Shadow and Prospective, Vision training, Free hand drawings;

1999 – 2002 **Demonstrator**

Architectural Engineering Department, Zagazig University, Egypt

RESEARCH EXPERIENCE

I am interested in the field of environmental design of buildings, with great concern to the thermal performance and energy efficiency in buildings. Human thermal comfort in interiors and open spaces of great interest to me. My research included multi-approached techniques such as: post occupancy evaluations "POE" and parametric studies using computer simulation programs. Both the subjective assessment and the objective assessment are employed included interviews, questionnaires and all physical and human factors that affect thermal performance of buildings. I have an excellent experience in using simulation programs such as Autodesk ECOTECT, Design builder, Fluent, as well as the simulation engines of other programs such as energy plus, radiance and HTB2 through the exporting feature of Ecotect. My research papers and projects are focusing on enhancing the human thermal comfortability through three stages in building construction. These are:

- 1. Integrating the environmental principles through the building design; simulation programs in the early stages of
- 2. Employing the traditional and contemporary passive strategies and measures to enhance the environmental performance of buildings.
- 3. POE (Post Occupancy Evaluation), through employing Both the subjective and the objective assessment;
- 4. Investigating the environmental performance of buildings, in terms of thermal performance, ventilation and visual performance.

PUBLICATIONS

Ongoing:

- 1. Albushra M. Alanbar & Mady Mohamed, The Role of Park Cooling Island (PCI) in Mitigating the Urban Heat Island (UHI), Atmosphere SI: "Medium and Large-Scale Application of Nature-Based Countermeasures to Mitigate Urban Heat Island Phenomena"
- 2. Mohamed, M., Cooling Urban Open Spaces by the Passive Solar Strategy in Hot Arid Region A case study of Effat Campus, The City of Jeddah
- 3. Critical insights into Green Urban Sustainable System to achieve the Concepts of Smart Cities RESEARCH & INNOVATION FORUM 2022 Rii2020 Athens 20 22 April

In Review:

- 4. Mady Mohamed, and Mohamed F. El-Amin, Inward and Outward Opening Properties of one-sided wind catchers: Experimental and analytical evaluation, Sustainability_SI_Sustainability and Energy-Saving in Construction and Building Materials,
- 5. Adaptive Design Solutions for Jeddah Promenades During the Pandemic, Frontiers in Built Environment Adaptive Design Solutions for the 'New Normal' in the Ongoing COVID-19 Pandemic











- 6. Mohamed M. Ramadan, H., Kinetic Energy Harvesting from Human Footsteps: Review and Case Study, International Journal of Engineering Research and Technology;
- 7. Nashwa Khan, Mady Mohammed, Arabian Lagoons- Urban Recreation and Floating Underwater Marine Research Centre, Civil Engineering and Architecture (ISSN: 2332-1091)
- 8. Lama Alsaud, Dina Hassan, Rofaida Faraj, Thuraya Bajo, Alanoud Alotaibi, Mady Mohamed, Stack Effect Phenomenon in Architecture, Civil Engineering and Architecture (ISSN: 2332-1091),
- 9. Latifa Aldosari1, Mady Mohamed, True Origins of Architecture, Review of International Geographical Education Online, (ISSN: 2146-0353)

In Press

- 1. Mohamed, M., Madani, M., Nabil, N., Lighting in mosques-Needs and applications, the 5th Memaryat Conference (MIC 2021) Masjid Architecture: Form and Meaning, 22-23 Feb., 2021, Effat University, Jeddah, KSA,
- 2. Mohamed, M., Ahmed, N., Mitigating the Contradiction of the climatically best orientation and the Qibla Direction and of Mosques, the 5th Memaryat Conference (MIC 2021) Masjid Architecture: Form and Meaning, 22-23 Feb., 2021, Effat University, Jeddah, KSA,
- 3. Mady Mohamed, Carbon Footprint Related to Energy and Architecture and Strategies to Remove Footprints from Buildings, Review of International Geographical Education Online
- 4. Sanaa A. Al-Kesmi, and Mady Mohamed, Analysis on the Proposed Saudi Green City Guidelines: The Case of Jeddah City, Review of International Geographical Education Online,
- 5. Amani Ahmad Aburuzaiza, Mady Mohamed, and Tarek Ragab, Investigating the Effect of Urban Form on Heat Island Phenomena: Case Study of Jeddah, KSA, Civil Engineering and Architecture,
- 6. Maha Alsuhaibi, Teaf Abushusha, Roaa Omar, Rawan Masri, Rana Alotaibi, Wijdan Aljuaid, Mady Mohamed, Daylighting in Office Buildings: Design Strategies and Techniques, Lecture Notes in Civil Engineering,
- 7. Ghazal Alkhateeb, Sara Alshareef, Magferah Alsammam, Bareah Arshadlamphon, Mathar Munshi, Farah Mohammed, Mady Mohammed, Design Strategies and Techniques of Lighting for Museums Research, Lecture Notes in Civil Engineering,
- 8. Ranin Awad, Leen Fatani, Shahad Bagabir, Heba Bakri, Rahaf Al-Qattan, Mady Mohamed, Lightning Assessment Techniques, Lecture Notes in Civil Engineering,

2022

- 9. Mohder, L., Mohamed, M., Design guideline for Air Quality in Hot Climate's Open Spaces, the 6th Memaryat Conference (MIC 2022) Cities Of The Future: Challenges And Opportunities, 09-10 Feb., 2022, Effat University, Jeddah, KSA,
- 10. Alghamdi, H., Mohamed, M., Promoting Social Interaction in Jeddah's Open Spaces, the 6th Memaryat Conference (MIC 2022) Cities Of The Future: Challenges And Opportunities, 09-10 Feb., 2022, Effat University, Jeddah, KSA,

<u>2021</u>

- 11. Mohamed M, Shawesh R. Assessment of Outdoor Thermal Comfort in Hot Arid Zone. Journal of Urban and Environmental Engineering. 2021;15(1):10-23,
- 12. Alaa Mahgouba, Yasmine Sabry Hegazi, Heidi Ahmed Shalaby, and Mady Mohamed, Energy Retrofitting of Heritage Buildings Using Building Information Modeling, ICESA 2021, Second International Conference for Engineering, Sciences and Applications, Theme: Engineering Future to Ensure Sustainability, 22-23 October, 2021, Holiday Inn Cairo Maadi Hotel, Cairo, Egypt, http://icesa-egypt.org/,
- 13. Hegazi, Yasmine S., Heidi A. Shalaby, and Mady A.A. Mohamed 2021. "Adaptive Reuse Decisions for Historic Buildings in Relation to Energy Efficiency and Thermal Comfort—Cairo Citadel, a Case Study from Egypt" Sustainability, ISSN / eISSN 2071-1050, 13, no. 19: 10531. https://doi.org/10.3390/su131910531
- 14. Mohamed, M., Othman, A., Abotalib, A., Majrashi, A., Urban Heat Island Effects on Megacities in Desert Environments Using Spatial Network Analysis and Remote Sensing Data: A Case Study from Western Saudi Arabia, Journal of Remote Sensing, Remote Sens. 2021, 13 (10), 1941, https://doi.org/10.3390/rs13101941, SI in Understanding Urban Systems Using Remote Sensing,
- Mohamed, M. Human Poverty in Rural Communities in Egypt A Case Study of Al-Sharkia Province, Journal of Sociologia Urbana e Rurale, XLIII, 124, 2021, Pages 33-61, doi: 10.3280/SUR2021-124003, ISSN 0392-4939, ISSNe 1971-8403, 2021; http://digital.casalini.it/10.3280/SUR2021-124003;











16. Mohamed M., and Shawesh R., Post Occupancy Evaluation of Outdoor Thermal Comfort in Hot Arid Zone, International Journal of Low-Carbon Technologies, DOI: 10.1093/ijlct/ctaa035, https://academic.oup.com/ijlct/advance-article/doi/10.1093/ijlct/ctaa035/5856808, V 16, Issue 1, Pages 50–60, 2021, ISSN 1748-1317, EISSN 1748-1325;

2020

- 17. Mohamed, M., and Shawesh, R., Assessment of Outdoor Thermal Comfort in Hot Arid Zone, _the 5th international conference on Urban Planning for Architectural Design and Sustainable Development, 08, Jul / 10, Jul 2020, Online Conference (In collaboration with University of Florence);
- 18. Fathima Shafna Abdul Majeed, Mohammad Shokry, and M. Mohamed, Changing the Urban Foodscape: Gastronomic Center for Food Education and Agrotechnology. Journal of Critical Reviews, 2020. 7(8): p. 215-219, doi: 10.31838/jcr.07.08.44;
- 19. Mohamed, M, and Bagader M., "Al-Mangabi Stone" as a Vernacular Construction Material in the Hot Humid Region, International Journal of Engineering Research and Technology. ISSN 0974-3154, Volume 13, Number 6 (2020), pp. 1319-1329, © International Research Publication House. http://www.irphouse.com/ijert20/ijertv13n6 33.pdf;
- 20. Mohamed, M., and Okasha, R., Green School as a 3D-text book for Environmental Education Precedent analysis, EAQ, International Journal of Environmental Quality, ISSN 2281-4485, V 39 (2020) Pages:52-71; https://eqa.unibo.it/article/view/10340/11092, DOI: 10.6092/issn.2281-4485/10340
- 21. Mohamed, M, ElEsawi, W., El-Shafie, M., and AlWaer, H., Sick Neighborhood Syndromes in Hot Dry Climate, the 4th Meamaryat International Conference MIC20, Designing for the Desert, 26-27 February 2020, Jeddah, KSA;

2019

- 22. Mohamed M, Atef A, Noureddine Z, Soufiane F, Predicting the limits of the oasis effect as a cooling phenomenon in hot deserts, An applied study on the Sahara oases, (TBPS-2016-0053), Journal of Desert, V 24, Issue 2, Summer and Autumn 2019, Pages 255-266, Print ISSN, 2008-0875, Online ISSN, 475-2345X, https://jdesert.ut.ac.ir/article-76384 d5654b703bf83876fea97282880088dd.pdf;
- 23. Mady Mohamed, F. Soufiane, A. Atef, D. Salaheddine, Quantifying the effectiveness of mass proportions and the orientation for buildings on thermal performance in Tebessa, Algeria, presented at the International Conference arth and Environmental Science (ISSN: 1755-1315), Published under licence by IOP Publishing Ltd IOP Conference Series: Earth and Environmental Science, Volume 397, issue, 1, pages, doi: https://doi.org/10.1088/1755-1315/397/1/012008, https://iopscience.iop.org/article/10.1088/1755-1315/397/1/012008;
- 24. Mady Mohamed (Nov. 7th, 2019). Green Building Rating Systems as Sustainability Assessment Tools: Case Study Analysis, Sustainability Assessment at the 21st century, ISBN: 978-1-78984-977-6, Print ISBN: 978-1-78984-976-9, eBook (PDF) ISBN: 978-1-83880-079-6, Editors; María José Bastante-Ceca, Jose Luis Fuentes-Bargues, Levente Hufnagel, Florin-Constantin Mihai and Corneliu Iatu, IntechOpen, DOI: 10.5772/intechopen.78105. Available from: https://www.intechopen.com/books/sustainability-assessment-at-the-21st-century/green-building-rating-systems-as-sustainability-assessment-tools-case-study-analysis;
- 25. Mady Mohamed, Asmaa Ghurab, Smaher Qari, Rozana Alkhzami, Magferah Alasmman, Jawan Hassanan, <u>Human Kinetic Energy</u>, The 2019 International Conference on Emerging and Renewable Energy: Generation and Automation (ICEREGA 2019), 30 October-1 November 2019, Istanbul, Turkey;
- 26. Mady Mohamed, Khadijah A. Fatani, and Samah Al-Khateeb, Survey Based Sustainable Socio-Cultural Guidelines for Neighbourhood Design in Jeddah, presented at 4th International Conference on Research Methodology for Built Environment and Engineering 2019, 24–25 April 2019, Chulalongkorn University, Malaysia, and published at the IOP Conference Series: Earth and Environmental Science (ISSN: 1755-1315), Published under licence by IOP Publishing Ltd IOP Conference Series: Earth and Environmental Science, Volume 385, issue, 1, pages, doi:10.1088/1755-1315/385/1/012050;
- 27. Mohamed M, Klingmann, A., and Samir, H., Examining the Thermal performance of Vernacular Houses in Asir Region of Saudi Arabia, 2019, The Alexandria Engineering Journal, AEJ, Volume 58, Issue 2, June 2019, Pages 419-428, ISSN: 1110-0168, doi: https://doi.org/10.1016/j.aej.2019.03.004;
- 28. Mohamed, M., El-Amin, M., Nayer, A., Mohammed, M., and Felmban, S., Guidelines to utilize the Wind catcher "Malqaf" technique in Jeddah's new residential buildings, 7th annual International conference on Architecture and Civil Engineering ACE 2019, pages: 255-266, 27-28- May 2019 Print ISSN: 2301-394X, E-Periodical ISSN: 2301-3958, Print ISSN: 2301-394X, E-Periodical ISSN: 2301-3958, Global Science and Technology Forum











- (GSTF), Singapore, http://ace-conference.org/, **DOI**: 10.5176/2301-394X_ACE19.506; https://re.public.polimi.it/retrieve/handle/11311/1103335/415328/19.%20ACE%20588_Final.pdf;
- 29. Mohamed, M., Saving Energy through Using Green Rating System for Building Commissioning, Energy Procedia (Special Issue on Emerging and Renewable Energy: Generation and Automation), Elsevier, https://doi.org/10.1016/j.egypro.2019.04.038, ISSN: 1876-6102, Volume 162, April 2019, Pages 369-378;
- 30. Mohamed, M. and Shawesh, R. Outdoor Thermal Comfort, MIC 19, The 3rd International Memaryat Conference on Architecture, Urban Safety, and Wellbeing, Effat University, KSA, 24 25 March 2019;
- 31. Mohamed, M. and Nayer, A., On Wind Catcher Integration in Contemporary Buildings in Jeddah, EQA International Journal of Environmental Quality / Qualité de l'Environnement / Qualità ambientale,, 32 (2019) 01-14, DOI: 10.6092/ISSN: 2281-4485/8240, Online ISSN: 2281-4485, Print ISSN: 2039-9898, Univ Studi Bologna, ITALY, 40127;

- 32. Mohamed, M. Alwai, Gh. Ragab, T. Placemaking and Climate Change Adaptation: Rethinking the Place Diagram, The 2nd International Memaryat Conference Architecture and Urban Resiliency; Effat University 18th -19th April 2018;
- 33. Mohamed, M., Beydoun, Z. Refat, A. Jeddah Promenades Design Guidelines, The 2nd International Memaryat Conference Architecture and Urban Resiliency; Effat University 18th -19th April 2018;
- 34. Mohamed, M., Al-kesmi, S. AlSurf, M. Framework for successful development of green cities in Saudi Arabia, The 2nd International Memaryat Conference Architecture and Urban Resiliency; Effat University 18th -19th April 2018.
- 35. Mohamed, M. Kilingman, A. Hussien, H. Examining the Potential Values of Vernacular Mud Houses in the Asir Region of Saudi Arabia, the journal of WIT Transaction on the Built Environment, Islamic Heritage Architecture and Art II, Vo., 177, pages: 27-38, 2018, DOI: 10.2495/IHA180031, ISSN 1743-3509, https://www.witpress.com/elibrary/wit-transactions-on-the-built-environment/177/36541;
- 36. Mohamed, M. A., Mohammed, M. F., Investigating the environmental performance of the wind catcher in Jeddah, the journal of WIT Transaction on the Built Environment, Islamic Heritage Architecture and Art II, Vo., 177, pages: 15-26, 2018, DOI: 10.2495/IHA180021, ISSN 1743-3509, https://www.witpress.com/elibrary/wittransactions-on-the-built-environment/177/36540;
- 37. Mohamed M, The mastery of the Takhtabush as a paradigm traditional design element in the hot zone climate, EQA International Journal of Environmental Quality / Qualité de l'Environnement / Qualità ambientale, 28 (2018) pages: 1-11, DOI: 10.6092/issn.2281-4485/7661/ Online ISSN: 2281-4485, Print ISSN: 2039-9898, Univ Studi Bologna, ITALY, 40127, https://eqa.unibo.it/article/view/7661/7469;

2017

- 38. Mohamed, M. Integrating the Commissioning Processes into Maintenance and Operation, a poster presented at Saudi Arabia Smart Grid Conference, Hilton Jeddah, 12-14 Dec. 2017.
- 39. Mohamed, M. Badokhn, D. Enhancing the Energy performance for Youth Hub and Students Center, a poster presented at Saudi Arabia Smart Grid Conference, Hilton Jeddah, 12-14 Dec. 2017.
- 40. M. Mohamed, Using Rating Systems as a guide tool for consultancy in maintenance work, (LEED as a case study) OMAINTEC 2017, The 15th International Operation & Maintenance Conference in the Arab Countries 24-26 Oct. 2017, Vol-1, page 77 90.
- 41. Mohamed M, Investigating the effect of the Taktabush on the courtyard thermal performance, The 33th International conference (PLEA 2017 Edinburgh), Passive Low Energy Architecture; Design To Thrive, VIII, Pages 5084-5091, PLEA 2017, Proceeding ISBN (978-0-9928957-5-4), Publisher: NCEUB (Network for Comfort and Energy Use in Buildings), 2nd 5th July 2017, Edinburgh, UK;
- 42. M. Mohamed, Sh. Abdel-Megeed, and,H Hussein; Influence of Smart technology on IEQ of office Buildings, The 1st Memaryat International Conference MIC 2017; Architecture of the Future, Challenges and Visions, ISBN: 978-9953-591-25-4, Pages: 208, Universal Publisher Co. Publisher & Distributor, Beirut, Lebanon. 18th -20th April 2017, Effat University, Jeddah, KSA.
- 43. M. Mohamed, **Thermal Comfort in School Buildings**, An investigation study on human thermal comfort at free running classrooms, Scholars' Press (2017-10-20), No., of pages 292. ISBN-13: 978-3-659-84107-1, ISBN-10: 3659841072. EAN: 9783659841071. Book Language, English.
- 44. Mohamed M, Al Khateeb S, Fatani Kh. Sustainable Socio-Cultural Guidelines for Neighborhood Design in Jeddah, presented at the Green Urbanism Conference, 12-14 October, 2016, Italy, and published at the Procedia











Environmental Sciences "Green Urbanism", 37 (2017) 584 – 593 doi: 10.1016/j.proenv.2017.03.045, ISSN 1878-0296, ELSEVIER, https://www.sciencedirect.com/science/article/pii/S1878029617300452.

45. Mohamed, M., Green Building Rating Systems as a Design Target for Public Building –Case Study Analysis, Progress in Industrial Ecology, An Int. J., Publisher: Inderscience Enterprises Ltd. ISSN:1476-8917. E-ISSN:1478-8764. 2017 Vol.11, No.2, pp.118 – 134, DOI: 10.1504/PIE.2017.088847, https://www.inderscienceonline.com/doi/abs/10.1504/PIE.2017.088847;

2016

46. Mohamed M, Mansour M, Okasha R. Green schools as an interactive learning source, Al Azhar University Engineering Sector, JAUES, ISSN: 1110-6409, V 11, No., 40, July 2016, DOI: 10.21608/AUEJ.2016.19401, Page 1091-1100, Index Copernicus Journal;

2014

- 47. Mohamed M., Lessons from the Past to Enhance the Environmental Performance of Primary School Classrooms in Egypt, Environment and Ecology Research ISSN: 2331-625X (Print); ISSN: 2331-6268 (Online); 2, 221 233. doi: 10.13189/eer.2014.020601. Vol. 2(6), pp. 221 233, June 2014, Horizon Research Publishing Cooperation, USA;
- 48. Mohamed M., Gado T. Investigating the Process of Exporting Autodesk Ecotect Models to Detailed Thermal Simulation Software, Environment and Ecology Research, ISSN: 2331-625X (Print); ISSN: 2331-6268 (Online), 2, 209 220. doi: 10.13189/eer.2014.020504., Vol. 2(5), pp. 209 220, May ,2014, Horizon Research Publishing Cooperation, USA;

2013

49. Mohamed, M.; Shalaby, H.; El-Menshawy, A. Partnership in Urban Conservation projects; a case study of Egypt in the twentieth century, Engineering Research Journal (137) March 2013, Mataria Engineering Faculty, Helwan University.

الشراكة في مشروعات الحفاظ العمراني (حالة دراسية مصرفي القرن العشرين)

- 50. Mohamed, M.; Abu Elfadle H. Transformable Architecture, A key to Improve stadiums & sports buildings. The First International Engineering Conference Hosting Major International Events Innovation, Creativity and Impact Assessment. Housing &Building National Research Center, Cairo, Egypt from 15-18-01-2013.
- 51. Mohamed, M. An approach to integrate the environmental impact assessment process in the early stages of design.

 The First International Engineering Conference Hosting Major International Events Innovation, Creativity and Impact Assessment. Housing &Building National Research Center, Cairo, Egypt from 15-18-01-2013.

2012

52. Mohamed M.; Ecresh A., Measuring and diagnosing the human and urban poverty in some communities of al-Sharkia Governorate, The National Review of Social Science, Volume 49, Number 1, January 2012. Issued by National Centre for Social and Criminological Research, Cairo.

قياس وتشخيص الفقر البشري والعمراني ببعض توابع إحدى قرى محافظة الشرقية (الدراسة الأولى)

2010

53. Mohamed M., M Anwar, S Okasha; Computer aided Design software in site planning, Al-Azhar Engineering Eleventh International conference, 21-23 Dec 2010, Cairo, Egypt

برامج الحاسب المساعدة في مجال تصميم تنسيق المواقع

- 54. Mohamed, M., M. Osman, and T. Gado, Investigating the intelligence of the low-tech earth architecture of the Sahara: A feasibility study from the western desert of Egypt. Intelligent Buildings International (IBI), 2010. V.2: Iss. 3, p. 179-197.
- 55. Mohamed, M., Traditional ways of dealing with climate in Egypt, in The Seventh International Conference of Sustainable Architecture and Urban Development (SAUD 2010), S. Lehmann, H.A. Waer, and J. Al-Qawasmi, Editors. 2010, The Center for the Study of Architecture in Arab Region (CSAAR Press): Amman, Jordan. p. 247-266.

2009

56. Mady Mohamed, July 2009, Investigating the Environmental Performance of Government Primary School in Egypt: with particular concern to thermal comfort, **Supervisors**: Prof. Simon Unwin and Dr. Tamer Gado, A PhD Thesis submitted to fulfil the degree of the Doctor of Philosophy to Dundee School of Architecture, Dundee University, UK;











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- 58. Mohamed M., Gado T. Assessment of thermal comfort inside primary governmental classrooms in hot dry climates Part II: A case study from Egypt In: Horner M, Price A, bebbington J, Emmanuel R, editors. SUE-MoT 2009 Second International Conference on Whole Life Urban Sustainability and its Assessment; 2009 22 24 April 2009; Loughborough, UK: Loughborough University; 2009. p. 991 1001;

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2005

60. Mohamed M., Gado T, Unwin S. The environmental performance of classrooms in Egypt: a case study from El-Minya Governorate. In: The Second Scottish Conference for Postgraduate Researchers of the Built & Environment (PRoBE 2005); 2005; Glasgow Caledonian University; pp. 592 -604; http://www.gcu.ac.uk/16-17/05 probe2005.pdf

2002

- 61. Mady Mohamed, October 2002, Sustainable Urban Development of Sinai Peninsula, M.Sc. in Architectural Engineering (Full time), a thesis submitted to fulfile the degree of master of Science in Architecture, Architectural Engineering department, Faculty of Engineering, El-Minya University, Egypt, Supervisor: Prof. Mahmoud Noffal, Dr. Ossam Mohamed, and Dr. Mohamed Nabawe, AlMinya University, 2002;
- 62. Mohamed M., Nabawe M, Essam Abdalziz, and Noffal M, A proposal for north of Sinai comprehensive development policies, The 2nd Minia international conference for advanced trends in engineering, April 7-9, 2002, vol. I "P. 2-5";

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PATENTS

PRESENTATIONS

2021

- 1. A given workshop to Dar Al Uloom University, "Insights about Research Projects and Grants", 06 Oct. 2021, Riyadh, KSA,
- Delivering a speech at the 7th Islamic Finance Conference "Business Intelligent in Islamic Finance", December 09th 2021,
- 3. Providing the closing remarks in the 3rd International Psychology Conference, Resilience & Psychological Wellbeing of Youth during the COVID-19 Pandemic, 25 Oct. 2021, Jeddah, KSA,
- 4. Providing a speech in the Positive Psychology and Wellbeing Research Lab. 3rd anniversary Event, Sunday the 28th of February 21 Spring 2021
- 5. Providing a speech on Research at Effat University, The 5th International Meamaryat Conference; Designing for the Desert, Effat University, 23-24 February 2021; Spring 2021
- 6. Acting as a panelist in the "webinar of Association of Arab University on "How universities in Saudi Arabia are working towards skills development and digital transformation to align with the goals of vision 2030." Feb 15th at 1pm Spring 2021,

2020

- 7. A given lecture on : Almangabi Stone as a sustainable material for construction in Jeddah, Bawtaq Online platform, 21st Oct.,
- 8. A given lecture on "Green Building Rating Systems: Theory Vs. Practice", BIMarabia Academy, Monday 5th Oct. 2020, 6:0 pm 8:0 pm, Zoom,
- 9. A workshop on the new themes for research internal grants at Effat university, Effat Library, Dec, 2020.

2019

- 10. A given talk about the Smart Building Research Centre (SBRC), Board Meeting Room with representatives from the Saudi Electricity Company, Effat University, Wednesday, November 27th 2019, ECoE,
- 11. A given talk about the Solar Decathlon Middle East (SDME), Monday, November, 18th 2019, ECoE, Effat University,
- 12. A given talk about the Solar Decathlon Middle East (SDME), Solar Project-II, Cultural Museum, Effat University, under the patronage of Her Royal Highness Princess Lolowah Al-Faisal, Vice Chair of the Board of Trustees and General Supervisor of Effat University, Sunday, Dec. 08th 2019

2018

- 13. A given Lectures on the integration of the environmental design of buildings in the early stages of the design processes, Studio-8 students and the capstone students, Effat university, Jeddah, KSA,
- 14. A given lecture on Green Architecture between Theory and Practice, Effat University, Jeddah, KSA;
- 15. A general talk on "Malqaf: Designing with wind Lessons from the past steering the future" on the Research Day on Thursday March, 22nd 2018, as part of the research activities of KACST Project "Investigating the adaptability of the traditional building techniques in Jeddah's new residential buildings"

2017

- 16. A speech on "New Design Trends in HealthCare Buildings" at Al-Riyadh forum for Enhancing of the Healing Environment inside HealthCare Buildings. 04th December 2017, the Main Hall of the Ministry of Health. organized by the Ministry of Health and the Saudi Healthcare Architects Team, The Saudi Umran Society;
- 17. A technical workshop on using Autodesk Ecotect in simulation for Buildings, for undergraduate students, Effat University, 30th Nov. 2017, Jeddah, KSA.
- 18. A general lecture on Green Building Rating Systems, Big-5 28-03-2017 Jeddah Centre for Forums & Events, Jeddah, KSA;

2016











- 19. A general talk about the Low Carbon Architecture Summer Programme LCASP, Meamariate Exhibition, 12th April 2016, Effat University;
- 20. A given lecture on Green Architecture between Theory and Practice, Saudi Engineering Council, Jeddah, KSA, Dec. 18th 2016;

- 21. A given lecture on Green Architecture between Theory and Practice, Effat University, Jeddah, KSA;
- 22. A given lecture and workshop on Green Architecture Capstone students, Architectural Department, Effat University;

2014

23. A given lecture on (Integrative design for sustainable cities), a workshop on Green Innovation and Entrepreneurship programme, GIEP, Sunday, April 13th 2014, Zagazig University, funded by the European Commission TEMPUS with Zagazig University;

2013

- 24. Four days training, Teaching the Whole Building Simulation Software "Autodesk Ecotect" to use as an Environmental Analysis Tool to evaluate and enhance the environmental performance of buildings; Dar El-Handasa Firm for architecture, Cairo, Egypt
- 25. Four days training, Teaching the Whole Building Simulation Software "Autodesk Ecotect" to use as an Environmental Analysis Tool to evaluate and enhance the environmental performance of buildings; 6 of October High Institute of Architectural Engineering and Technology; Giza, Egypt;
- 26. Five day training, Teaching Pre-University teachers to integrate the Education for Sustainability (ESD) in the Egyptian Curriculum, 29/06 04/07/2013, Training Centre, Zagazig University, Egypt;
- 27. Pilot training on the implementation of ESD in Pre-university Schools, 23/09/2013, Boys Experimental English School, Zagazig City, Al-Sharkia Governorate, Egypt;

GRANTS AND FELLOWSHIPS

GRANTS:

2019	Technical manager of Effat University's team to in Solar Decathlon Middle East SDME 2020,
	Dubai, Dubai, UAE;

2019 Co-Investigator of a research project (50,000 SR) granted from King Abdul Aziz City for Science and Technology (KACAST). The project titled; Sustainable Waterfront Development: An Integrated socio-bioclimatic Design Approach;

Principle Investigator of a research project (20,000 SR) granted from Effat University. The project titled; Investigating the Health-Based design aspects of the promenade urban space – AlRawda Promenade in Jeddah as case study;

Principle Investigator of a research grant (164000 SR) from King Abdel-Aziz City for Science and Technology (KACST), December, 2016; titled: "Investigating the adaptability of the traditional building techniques in Jeddah's new residential buildings" No., 334 – 37;

This project focused on the wind catcher "Malqaf" as one of the most important passive measures in hot humid climate. Reasons and effects of abandoning such technique are analyzed in this research in order to find solutions to overcome the obstacles of implementing the Malqaf in order to decrease the required energy to cool the residential buildings. It is also aimed at devising design guidelines to assure the high efficiency of the Malqaf in Jeddah new residential buildings. The research confirmed a good potential to implement the passive strategies for natural ventilation particularly the wind catcher in the new contemporary residential design in Jeddah. Moreover, a set of design guidelines had been set related to the appropriate height and the area ratio between the inlet and the outlet openings of the Malqaf. The results of the research is going to encourage the re-use of the Malqaf technique in Jeddah. Three ISI/SCOPUS publication were extracted from this work.











Principle Investigator of a research project (20,000 SR) granted from Effat University. The project titled; Proposal for an Inter-generational Research Platform to develop intergenerational knowledge transfer of vernacular building techniques in the south-west of Saudi Arabia;

This project was interdisciplinary research project between the disciplines of architecture, sustainable technologies, conservation and social studies under the umbrella "Reinventing the Vernacular", which aims to upgrade, revitalize and restore abandoned historical villages and districts in Saudi Arabia with new sustainable technologies. The aim of this initiative was to foster an intergenerational awareness of vernacular and sustainable building practices in Saudi Arabia at the creative intersection of traditional building practices and sustainable technologies with the goal to reinvent vernacular building techniques of Saudi Arabia and bring them into a viable future. Two ISI/SCOPUS publications were extracted from this work.

2014 Principle Investigator of research Fund (120,000 LE) to establish an Environmental Laboratory at

Zagazig University, 2013;

FELLOWSHIPS:

2021 to date Fellow (FHEA), AdvanceHE, UK. I have achieved the status of Fellow (FHEA) In recognition of

attainment against the UK Professional Standards Framework for teaching and learning support in

higher education. Fellowship reference PR215788, Date of Fellowship 03/08/2021;

2014 to date LEED Green Associate, United States Green Building Council (USGBC) (10855449-Green-

Associate);

2014 to date Authorised trainee for Education for Sustainability from the European Union and the

Professional Academy for Teachers, Egypt

AWARDS AND HONORS

2020	Effat University Award for excellence in research for 2019-2020. This award is awarded to only
	one faculty as the best researcher in the university based on his/her scientific contribution and
	research publication in general and particularly in the last two years.
2019	World Architecture Award for a student project under my supervision. The project titled Tesla
	Car Showroom. The project is the output of the Comprehensive Design Studio, Architectural Design
	Studio-8 in Fall 2018. Student' names: Omnia Aljehani, Smaher Qari, and Magfera Alsamman. The
	project won the best five projects all over the world.
2016	Three Design Awards for three students under my supervision in the Architectural Design Studio-
	8 in Fall 2016. They have been awarded by the Saudi Health Care Architects (SHCA), and the Saudi
	Umran Society in the competition of "Planning and Design Healthcare facilities", Al-Khobar, KSA
	2017,
2012	EduCamp Training of Trainers Module on Education for Sustainable Development, , funded
	by the European Commission TEMPUS,
2004	PhD Full Scholarship funded by the Ministry of Higher Education, Egyptian Government.
1997	Msc scholarship, partially funded by Zagazig University, Egypt;

THESIS SUPERVISIONS

- 1. (2021 to date) Supervising a PhD thesis, Walla Kordi, Energy Retrofitting of Heritage Buildings Using Building Information Modeling, Zagazig university, Architecture Department, College of Engineering (ongoing).
- 2. (2021 to date) Supervising a master thesis, Manar Alwaheed, **Reuse of heritage buildings according to energy efficiency systems**, Zagazig university, Architecture Department, College of Engineering (ongoing).











- 3. (2021 to date) Supervising a master thesis, Rabab Kataia, Courtyards as a paradigm to accerelate the air flow through openings, Zagazig university, Architecture Department, College of Engineering (ongoing).
- 4. (2021 to date) Supervising a master thesis, Lujain Mohdher, **Investigating the air quality in Jeddah Open Spaces**, Master of Science in Urban Design (MSUD), Effat University;
- (2021 to date) Supervising a master thesis, Hend Alghamdi, Promoting Social Interaction in Jeddah's Open Spaces, Master of Science in Urban Design (MSUD), Effat University (ongoing);
- 6. (2021 to date) Supervising a master thesis, Entisar Almtyri, **The Impact of the high scrapper on the global** warming in the open spaces Makkah, Master of Science in Urban Design (MSUD), Effat University (ongoing);
- 7. (2021 to date) Supervising a master thesis, Reema Alshammari, **Revitalization the old historical areas in saudi arabia into tourism area within environmental sustainable approach**, Master of Science in Urban Design (MSUD), Effat University (ongoing);
- 8. (2021 to date) Supervising a master thesis, Shaima Banjar, Renewable Energy Management System design for Smart Homes, MSEE, College of Engineering, Effat University, (ongoing).

9.

- 10. (2021 to date) Supervising a PhD thesis, Ebtisam Wahsh, **Biomimetic Architecture**, **An Approach**, **for Energy Efficient Buildings' envelope** Design Zagazig university, Architecture Department, College of Engineering (ongoing).
- 11. (2020 to date) Supervising a PhD thesis, Samar Abdulgawad, Re-use of historical buildings with concern of energy efficiency, Zagazig university, Architecture Department, College of Engineering (ongoing).
- 12. (2020 to date) Supervising a master thesis, Albushra M. AlAnbar, Effectiveness of Urban Heat Island Mitigation Strategies on Parks in Jeddah, Master of Science in Urban Design (MSUD), Effat University;
- 13. (2020 2021) Supervising a master thesis, Ahmed Abdulaah, Strategies for achieving sustainability, in the architectural design of the house, Zagazig university, Architecture Department, College of Engineering (ongoing).
- 14. (2020 2021) Supervising a master thesis, Sara Khalil, Exploring the Concept of "Green Justice" on Streetscape Design and Walkability, Master of Science in Urban Design (MSUD), Effat University;
- 15. (2019 2020) Supervising a master thesis, Widad El-Eiswai, Investigating the relationship between Neighborhood urban design and Sick Neighborhood Syndrome in a hot arid zone, Master of Science in Urban Design (MSUD), Effat University;
- 16. (2018 2019) Supervising a master thesis, Rawan Shawesh, Evaluating Outdoor Thermal Comfort in Hot Humid Climate: Case study of Effat University Campus, Master of Science in Urban Design (MSUD), Effat University;
- 17. (2017 2018) Supervising a master thesis, Zeina Beydoun, **Design Guidelines for Health-Based Promenades in Jeddah**., Master of Science in Urban Design (MSUD), Effat University;
- 18. (2017 2018) Supervising a master thesis, Sanaa Kesmi, Proposal for Saudi Green City Guidelines: The Case of Jeddah City, Master of Science in Urban Design (MSUD), Effat University;
- 19. (2017 2018) Supervising a master thesis, Ghadeer Alwy, Sustainable Waterfront Development: Integrated Socio- Bioclimatic Design Approach., Master of Science in Urban Design (MSUD), Effat University;
- 20. (2016 to 2017) Supervising a master thesis, Amani Abu Reza, Expanding Urban Resiliency to Climate Change: Case Study of Jeddah, KSA., Master of Science in Urban Design (MSUD), Effat University;
- 21. (2013 to 2016) Supervising a master thesis, Reem Okasha, **Green schools as an interactive learning source**, Zagazig University;
- 22. (2015 2016) Supervising a master thesis, Khadijah A. Fatani, Sustainable Socio-Cultural Guidelines for Neighborhood Design in Jeddah, Master of Science in Urban Design (MSUD), Effat University.

PROFESSIONAL MEMBERSHIPS

2021 to date Registered Architect, Saudi Council of Engineering (Membership No., 797745)

2017 to 2019 Member of the Arab Institute of Operation and Maintenance, OMAINTEC (Membership No.,

ACM-2219);

2014 to date LEED Green Associate, United States Green Building Council (USGBC) (10855449-Green-

Associate);

2014 to date Authorised trainee for Education for Sustainability from the European Union and the

Professional Academy for Teachers, Egypt











2013 to date Expert in Urban Studies (Village level), General Organization of Physical Planning (GOPP),

Ministry of Housing, Egypt

2013 to date Architectural Consultant for Public Building Design, Egyptian Engineering Syndicate (13/3182)

1996 to date Architectural Engineer, Egyptian Engineering Syndicate (membership No., 13/3182)

RELEVANT SKILLS

1. Very good in speaking, reading and writing Arabic and English languages;

- 2. In addition to the general experience in the common computer skills (ICDL certificate issued by the UNESCO Cairo office), I have a professional knowledge of other computer programs include:
 - a. Environmental software: DesignBuilder, Envi-Met, Autodesk ECOTECT, Meteonorm, HTB2 and Weather Tool. With Special experience in ECOTECT through employed it in modeling, simulation and analysis the case studies of my PhD for almost three years; Also, I am teaching the Autodesk Ecotect in several places.
 - b. Architectural software: AutoCAD;
 - c. Data analysis software: SPSS (Statistical Package for the Social Science), Microsoft Excel and Microsoft Access;
 - d. Graphical imaging software: Adobe Photoshop, Adobe Illustrator, Adobe Premier; Camtasia
 - e. Publishing software: Microsoft Word, Microsoft Power point, Endnote, Visio and MS project.
 - f. Geographical Information System (GIS)
 - g. Educational online management systems; Moodle e-learning management system, blackboard

REFERENCES

1. Prof. Simon Unwin

Position: Professor, Welsh school of Architecture, Cardiff University

E-mail address: simon.unwin999@gmail.com

2. Dr. Mervat El Shafie

Position: Dean, College of Architecture and Design, Effat University

Address: Effat University, Jeddah, KSA

Telephone: + 966 122137910

E-mail address: melshafie@effatuniversity.edu.sa

3. Prof. Khaled Nabil

Position: Professor, Architectural Engineering Department, Faculty of Engineering, Zagazig University,

Egypt.

Address: Zagazig University, Faculty of Engineering, Architecture department, Zagazig, Egypt

Telephone: 002-1005140518

E-mail address: khanabil@yahoo.com

Prof. Ahmed Ouf











Position: Professor, Architectural Engineering Department, Faculty of Engineering, Cairo University, Egypt.

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