



Nermine Abdel Gelil Mohamed

Associate Professor of Architecture

MSA University (October University for Modern Sciences & Arts, Egypt)
 Department of Architectural Systems Engineering
 Program validated by and dual degree from **Greenwich University (UK)**

Founder & Director, MSA Center of Earth Architecture

Date of Birth: 19 March 1975
Nationality: Egyptian

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[Scopus ID](#)

[Google Scholar](#)

[Web of Science Researcher ID](#)

[ORCID](#)

[Certificates and official documents](#)

Education

- 2003 – 2007** **Ph.D. in Architectural Engineering (Tokyo, Japan)**
 Recipient of the Japanese Government Doctoral Scholarship *Monbukagakusho*
 Graduate School of Engineering, Major: Civil Engineering & Architecture, Hosei
 University, Tokyo, Japan
- 1997 – 2003** **M.Sc. in Architectural Engineering (Cairo, Egypt)**
 Faculty of Engineering, Cairo University, Egypt
- 1992 – 1997** **B.Sc. in Architectural Engineering (Cairo, Egypt)**
 Faculty of Engineering, Cairo University, Egypt
- 1985 – 1992** **Thanaweya Amma, Science Major (Cairo, Egypt)**
 Lycée La Liberté – Bab El Louk, Cairo, Egypt

Skills

Computer Skills

- **One Click LCA application:** Life Cycle Assessment (LCA) of buildings
- **EDGE application:** EDGE green building certification (Excellence in Design for Greater Efficiencies) developed by the IFC (International Finance Corporation)
- **Grasshopper/Eddy3d:** Outdoor CFD Analysis (Computational Fluid Dynamics)
- indoor CFD Analysis
- **Sketchup**
- **Adobe Photoshop**
- **Microsoft Office** (Word, Excel, PowerPoint)

Languages

- **English:** fluent
- **French:** medium fluency (K-12 school years)
- **Japanese:** basic
- **Arabic:** native

Research, Teaching and Practical Profile

- With **17 years of experience as an instructor and coordinator** in the Department of Architecture (MSA, Fayoum, and Hosei Universities), in addition to 10 years as assistant, I emphasize contextual design, appropriate technologies and the social dimension while teaching design fundamentals and environmental considerations. Three-dimensional thinking, hands-on workshops, and environmental assessments (LCA, Edge, CFD) are adopted to link both theoretical and real aspects of architecture, while addressing the climate change phenomenon.
- **Winner of several prestigious awards** and a **Patent**, I was honored by President El-Sisi, The Prime Minister, The Minister of Higher Education, The minister of Planning and Economic Development, and The President of The Academy of Scientific Research and Technology. I was also an **official delegate** in the Egyptian Pavilion in COP 28, Dubai.
- My **research** is concerned with social, environmental, technological, and economic sustainability in architecture. From 2003 to 2007, I was a PhD fellow and a recipient of **the Japanese Government Doctoral Scholarship Monbukagakusho**. The 4-year stay in Japan in the well-known Professor Hidenobu Jinnai's laboratory was concerned with socio-cultural, environmental, and technical aspects in Japanese residences and compared them to traditional and contemporary Egyptian homes.
- In searching for the link between academia and practice, I founded **MSA Center of Earth Architecture** in 2017 (see [Video](#)). It aims to design and build affordable, socially responsible, environmentally-friendly and aesthetically appealing homes while offering **hands-on training** to students and professionals. The two award-winning constructed homes adopt systems that stand midway between vernacular and modern technologies such as partially reinforced walls built with hollow interlocking compressed stabilized earth bricks (CSEB, ICSEB), hybrid roofs that integrate funicular shell domes and jack arch vaults, and openings created with date palm leaves' midribs, including mashrabiyya-like shutters.
- My current applied research plan is concerned with developing “The Ecofordable Housing Cluster Prototype,” which aims to create an affordable residential area that innovatively showcases integrated green components functioning together in full harmony. The plan is an effort to contribute practically to UN’s Sustainable Development Goal 11 (SDG 11) associated with making cities and communities sustainable. In this context, my team’s **award-winning social housing design** features environmental urban and architectural design, green building technologies, sustainable landscape, renewable energy, smart water management, and fulfilling socio-cultural needs.
- Examples of students’ projects initiated and fully coordinated by me are: “Integrated Sustainable Residential Area” in New Valley Governorate (El Kharga Oasis), “Bi-generational family house with an attached tapestry-weaving showroom” in Harraneyya and Fustat Park areas, a "Souq (marketplace) with shared lodging for street traders” at El Hosary Square, “United Nations Higher Commissioner for Refugees-UNHCR Headquarter” adjacent to El Hosary Garden, the “Development of Osman Housing for the Extremely Needy” on Wahat Road, and “Pavilions of Egypt” in El Mukattam.

Managerial Experience

May 2017 – Present	Founder & Director of MSA Center of Earth Architecture Faculty of Engineering, Department of Architecture
2010 – Present	Member of the University of Greenwich revalidations committees Jointly preparing critical appraisal reports and program monitoring reports
2010 – Present	Delivery of reports to the Engineering Quality Assurance and Accreditation Unit
Spring 2019	Head , Teaching & Modules' Scheduling Committee
2018 –2019	Head , Engineering Academic Advising, Student Affairs &Registration Committee
2012 – 2017	Head , Architecture Academic Advising, Student Affairs &Registration Committee

- Fall 2015** **Head**, Teaching & Modules' Scheduling Committee
- 2010 - 2014** **Head**, Exhibition Committee, organizer of the 1st to 5th Annual Architecture Students' Exhibition

Teaching Experience

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- Apr. 2014 - Present** **Associate Professor - MSA University**
Faculty of Engineering, Department of Architecture
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- 2010 - 2014** **Assistant Professor (Lecturer) - MSA University**
Faculty of Engineering, Department of Architecture
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- 2007 - 2010** **Assistant Professor - Fayoum University**
Faculty of Engineering, Department of Architecture
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- 2007 - 2009** **Part-time Lecturer - MSA University**
Faculty of Engineering, Department of Architecture
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- 2006 - 2007** **Assistant Lecturer - Hosei University**
School of Engineering, Tokyo, Japan
- 2003 - 2007** **Assistant Lecturer - Fayoum University**
Faculty of Engineering, Department of Architecture (Doctoral scholarship since Oct. 2003)
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- 1997 - 2003** **Teaching Assistant - Fayoum University**
Faculty of Engineering, Department of Architecture

Publications

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- Abdel Gelil Mohamed, N., A. Moustafa, and E.A. Darwish. (2024). Structural, acoustical, and thermal evaluation of an experimental house built with reinforced/hollow interlocking compressed stabilized earth brick-masonry. *Journal of Building Engineering*, 86, 108790.
doi:<https://doi.org/10.1016/j.jobe.2024.108790> **WoS (SCIE Q1 JIF), Scopus (Q1 CiteScore)**
- Abdel Gelil Mohamed, N. (2023). Assessment of urban ventilation in typical Egyptian housing layouts from four eras using a multi-directional CFD analysis. *HBRC Journal*, 19(1), 453-481.
doi:<https://doi.org/10.1080/16874048.2023.2285093> **Scopus (Q2 CiteScore)**
- Abdel Gelil Mohamed, N., E. Hamid Abd El-Rahman, and M. Sadek. (2023). A smart green mashrabiyya-shutter design for residential applications in Egypt. *HBRC Journal*, 19(1), 229-252.
doi: <https://doi.org/10.1080/16874048.2023.2259629> **Scopus (Q2 CiteScore)**
- Sadek, Mohamed R. and Abdel Gelil Mohamed, N. (2023). Artificial Intelligence as a pedagogical tool for architectural education: What does the empirical evidence tell us? *MSA Engineering Journal*, 2(2), 133-148.
doi:<https://doi.org/10.21608/msaeng.2023.291867>
- Abdel Gelil Mohamed, N. and I. Abo Eldardaa Mahmoud. (2023). Cost-effectiveness and affordability evaluation of a residential prototype built with compressed earth bricks, hybrid roofs and palm midribs. *Frontiers in Built Environment*, 9. **WoS (ESCI Q1 JCI), Scopus (Q1 CiteScore)**
doi:<https://doi.org/10.3389/fbuil.2023.1058782>

- Abdel Gelil M., N., & A. Abbas, N. (2019). A comparative analysis between the Egyptian code, Auroville code and Brazilian standards for compressed stabilized earth blocks/bricks. *Journal of Environment Protection and Sustainable Development*, 5(2), 48-57.
<http://www.aiscience.org/journal/paperInfo/jepsd?paperId=4433>
- Abdel Gelil M., N., M. Soliman, M., & A. Abbas, N. (2019). The experience of two workshops on CSEB attended by MSA University team at Auroville Earth Institute and MSA Center of Earth Architecture. *Journal of Environment Protection and Sustainable Development*, 5(2), 28-43.
<http://www.aiscience.org/journal/paperInfo/jepsd?paperId=4418>
- Abdel Gelil M., N., & M. Badawy, N. (2015). Simulated comparative investigation of the daylight and airflow of the conventional Egyptian shutter 'sheesh' and a proposed latticework device 'new mashrabiyya.' *Indoor and Built Environment*, 24(5), 583-596.
 doi: <https://doi.org/10.1177/1420326X13516656> **WoS (SCIE Q2 JIF), Scopus (Q1 CiteScore)**
- Abdel Gelil M., N. (2014, March). From Japanese to Cairene houses: A contribution to the design of socially responsible housing in Egypt. *International Journal of Islamic Architecture (IJIA)*, 3(1), 147-170.
 doi: https://doi.org/10.1386/ijia.3.1.147_1 **WoS (AHCI Q1 JCI), Scopus (Q2 CiteScore)**
- Abdel Gelil M., N., & Hussein A., W. (2014). Traditional residential architecture in Cairo from a green architecture perspective. *Arts and Design studies*, 16, 6-26.
<http://doi.org/10.7176/ADS/2014-1-1>
- Hussein A., W., & Abdel Gelil M., N. (2013). Green architecture assessment system in Egypt with an application on Zeinab Khatoun house. *Journal of Developing Country Studies*, 3(14), 56-78.
<https://www.iiste.org/Journals/index.php/DCS/article/view/9428>
- Abdel Gelil M., N. (2011, July). Less space, more spatiality for low income housing units in Egypt: Ideas from Japan. *International Journal of Architectural Research: ArchNet-IJAR*, 5(2), 24-48.
 doi: <http://dx.doi.org/10.26687/archnet-ijar.v5i2.196> **WoS (AHCI Q1 JCI), Scopus (Q1 CiteScore)**
- Abdel Gelil M., N. (2006). A new *mashrabiyya* for contemporary Cairo: Integrating traditional latticework from Islamic and Japanese cultures. *Journal of Asian Architecture and Building Engineering (JAABE)*, 5(1), 37-44.
<https://doi.org/10.3130/jaabe.5.37> **WoS (SCIE Q4 JIF), Scopus (Q1 CiteScore)**
- Abdel Gelil M., N., & Hussein A., W. (2012). Towards new entrances for low-income housing units in Egypt: Integrating ideas from traditional *magaz* and Japanese *genkan*. In E. Duyan, & C. Ozturkcan, *House & Home from a Theoretical Perspective, ARCHTHEO '12 Conference Proceedings* (pp. 133-46). Istanbul: Dakam Publishing. ISBN: 9786054514045
- Hussein A., W., & Abdel Gelil M., N. (2009). Future Cities Between Planning Methodologies and Development Methods: Towards New Architecture Visions. Towards A New Architectural Vision: *New Glasses: Presentation and Representation, Proceeding for the 5th International Conference (ARCHCAIRO 2009)* (pp. 180-188). Cairo: Cairo University.

Patent

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Patent n. 30046, 2020

Title: A mixture and curing procedures to produce interlocking hollow bricks from stabilized compressed soil using sandy soil in order to increase their compressive strength and moisture resistance.

Inventor: Nermine Abdel Gelil Mohamed Abdel Halim

Granted by: Egyptian Patent Office (EPO) – Academy of Scientific Research and Technology.
 Int. Cl.8-C 04 B 28/04; C 04 B 111/00.

[See Patent in the EPO Database](#)

Scholarships / Funds

Oct. 2023 – Apr. 2024

Recipient of “**Enhancement of the Entrepreneurship Ecosystem (EEE)**” Grant provided by the African Development Bank (AfDB) in collaboration with the General Authority for Investment and Free Zones (GAFI), Egypt.

Jan.-Aug. 2023 New Valley Governorate Fund – The implementation of the Green Rural House Pilot, El Kharga Oasis.

2017 – 2021 MSA University Head of the Board of Trustees Fund – The Ecofordable House project: experimentations and technical tests, training and workshops, CSEB production, funicular-shell and jack arch roofs, date palm leaves’ midribs craftsmanship, full construction on-campus, Cairo.

2003 – 2007 Japanese Government Scholarship *Monbukagakusho* Doctoral Program – Tokyo

2005 – 2006 Young Researcher Grant *Keieisha Kondankai* – Tokyo

Awards / Honors

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Feb. 2024 4th Place in the “**Low-income Green Housing Competition.**” Ministry of Housing, Utilities & Urban Communities. The aim was to design a social housing area with sustainable energy, water and building technologies’ solutions.

- [Ministry of Housing Announcement](#)
- [MSA Announcement 1](#)
- [MSA Announcement 2](#)

Oct. 2023 1st place in the **National Initiative for Smart Green Projects** - small local projects category for the entry “**Green Rural houses in New Valley Governorate**” Phase 1 (governorates level) and Phase 2 (nationwide). Organized and sponsored by Ministry of Planning and Economic Development and UN-affiliates.

Honored by the Prime Minister and the Ministry of Planning and Economic Development.

- [MSA Announcement 1](#)
- [MSA Announcement 2](#)
- [Ministry of Planning Announcement](#)
- Featured in **UNDP Egypt**, check [here](#)

Nov. 2023 Shortlisted in **THE MENA AWARDS** (Times Higher Education - Middle East and North Africa Awards) in the category: “**Outstanding Contribution to Environmental Leadership for the project “The Ecofordable House: An Eco-Friendly Affordable Unit Built with Compressed Earth Bricks, Hybrid Roofs, and Palm Midribs.”**”

- [Times Higher Education Announcement](#) (click the category to find “Ecofordable House,” p.8)
- [MSA Announcement](#)

Oct. 2021 Honored by the **Engineering Quality Assurance and Accreditation Unit** at MSA.

Mar. 2018 **A memorial photo with President El-Sisi** honoring winners of the Academy of Scientific Research and Technology (ASRT) awards of innovation (4th Cairo Innovates), the National Conference of Scientific Research: Revealing Egyptian Potentials, 25-26 March 2018.

- Munir, M. (2018, March 25). Continuation of the activities of the national conference of scientific research "revealing Egyptian potentials." *Al Ahram Newspaper Gate*.
[News Link](#)

- Sayed, N. (2018, March 24). Sisi hails scientists' role in scientific research conference. *Egypt Today*. Cairo.
[News Link](#)
- Zalata, S. (2018, March 25). The National conference of scientific research: Revealing Egyptian potentials. *Al Ahram Newspaper*, p. 4.

Dec. 2017 Honored by **the Minister of Higher Education & Scientific Research**, and **President of the Academy of Scientific Research and Technology**

- [MSA Announcement](#)

Nov. 2017 **1st Place - Green Urbanism and Innovative Architecture**, 4th Cairo International Exhibition of Innovation (Cairo Innovates), organized by ASRT, 22 - 23 November 2017. The prize was awarded to MSA Center of Earth Architecture team for the submitted proposal. I was the designer and team leader.

- [Video](#)
- [MSA Announcement 1](#)
- [MSA Announcement 2](#)
- [Cairo International Exhibition of Innovation - Green Urbanism Announcement](#)

Oct. 2003 **The Grand Egyptian Museum Competition, 1st phase 20 winners and finalists.** The only Egyptian winning team among 1557 international entries, 82 countries. Elsaheed & Abdel Gelil. Published in: Archiworld (2003). *New Town Project 3: The Grand Egyptian Museum Competition*. South Korea: Archiworld Co.

2001 **Honorable mention.** Primary school at North Coast Competition. *The Annual Book of General Authority for Educational Buildings, Cairo*. Elsaheed, Abdel Gelil & Nessim

1999 **Honorable mention.** Edfu Museum in Aswan Competition. Elsaheed & Abdel Gelil.

1998 **Third prize:** Miami Islands Resort Competition. *Alam El-bena'a, 204*. Elsaheed & Abdel Gelil.

1998 **Honorable mention.** Egyptian Federation for Contractors Competition. Elsaheed, Abdel Gelil & Mahmoud.

Experimental and Pilot Projects/Protocols

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2017-2021 **The Ecofordable House** – An Eco-Friendly Affordable Unit Built with Compressed Earth Bricks, Hybrid Roofs, and Palm Midribs. Design, consultancy, and full site supervision.

- [Video](#)

Visits:

- [Minister of Higher Education and Scientific Research](#)
- [The Ministry of Housing, Utilities and Urban Communities](#)
- [The President of the Academy of Scientific Research and Technology](#)
- [Greenwich University Delegation – UK \(1\)](#)
- [Greenwich University Delegation – UK \(2\)](#)

Jan.-Aug. 2023 **A Green Rural House Prototype** in El Kharga Oasis, the New Valley Governorate. Design, consultancy, and full site supervision.

- [Video 1](#)
- [Video 2](#)

Visits:

- **The Minister of Housing, Utilities & Urban Communities** and other officials
[The Egyptian Council of Ministers Announcement](#)

[The New Valley Governorate Announcement](#)

- **The Minister of Planning and Economic Development** and other officials

[MSA Announcement](#)

[The Egyptian Council of Ministers Announcement](#)

[The New Valley Governorate Announcement](#)

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- Dec. 2022** **Protocol of cooperation** between MSA University and the New Valley Governorate to implement the “Green Rural House Initiative” in El Kharga Oasis.
- [Video](#)
 - [MSA Announcement](#)
 - [New Valley Governorate Announcement](#)

Training, Workshops & Courses

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In the following, I am a **trainee** except when “main trainer” is mentioned:

Jan. 2023 -June 2023

Main trainer of CSEB production and construction, hybrid jack arch and funicular shell-roofs, and date palm leaves’ midrib-shutters, doors and pergolas, during the construction of the **Green Rural House Prototype** in the New Valley Governorate.

Aug. 2022 **Parametric tools: Rhino + Grasshopper**, MSA University

Feb. 2022 **Elsevier reviewer training:**

- How to write a helpful peer review report
- The comments to editors and decision recommendations
- How to peer review a review article

Feb. 2022 **Design Builder whole building simulation tool** - intensive training, MSA University.

Nov. 2021 **Parametric Architectural Design tools: Rhino + Grasshopper**, Algorithm.

June 2021 **Operation and maintenance** of the new **automated CSEB full production line**, funded by MSA University.

2017 - 2020 **Main trainer** of CSEB production and construction, hybrid jack arch and funicular shell-roofs, and date palm leaves’ midribs shutters, doors and pergolas, during the construction of the **Ecofordable House** at MSA University.

2019-2022 **Staff development training courses**, MSA People & Organizational Development Department.

- Performance Evaluation & Feedback Training for Managers
- How to Organize a Conference for Professors
- Planning and Time Optimization
- Student Engagement and Motivation
- Manage your Time Effectively
- Instructional Design Program

June 2018 **Operation and maintenance** of the hydraulic quadruple **press machine for producing CSEB**, manufactured and funded by MSA University.

2017 **Main trainer** of the “**Intensive Hands-on Training Workshops on the Production and Masonry of Interlocking Compressed Stabilized Soil Bricks ISSB**,” rounds 1, 2, 3 & 4, organized by MSA Center of Earth Architecture.

Jan. -Feb.2017 **Operation and maintenance of Eco Brava press machine** for producing CSEB, MSA Center of Earth Architecture.

Jan. -Feb.2016 Intensive training on building **arches, vaults and domes**, Auroville Earth Institute, India.

- Jan. -Feb.2016** Intensive training on the **production and use of compressed stabilized earth blocks**, CSEB, Auroville Earth Institute, India.
- 2012 – 2014** A series of **faculty capacity development courses**, MSA University Training Department.
- 2007 – 2008** **Post-doctoral FLDP courses**, Faculty and Leadership Development Center, Fayoum University.
- 2003 – 2004** **Japanese language intensive course** (6 months), Gakugei University, Tokyo.

UNFCCC Delegate

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- 2023 Participation in COP28**, (30 Nov. 12 Dec., Dubai, UAE) as an [Egyptian delegate](#) in the Egyptian Pavilion (Blue Zone) among the 18 national winners in the **the National Initiative for Smart Green Projects (Ministry of Planning and Economic Development)**.
- [Ministry of Planning Newsletter](#)
 - [Ministry of Planning Announcement](#)
 - [MSA Announcement](#)
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- 2022 Participation in COP27**, as nominated by the Academy of Scientific Research and Technology, ASRT Pavilion, MSA University Booth (Green Zone, 6-20 November 2022, Sharm El-Sheikh, Egypt), which led to the signing of a protocol of cooperation between MSA University and the New Valley Governorate (December 2022) to implement a green rural house prototype in El Kharga Oasis.
- [Featured Video](#)
 - [MSA Media Coverage](#)

Organized Exhibitions

- Nov. 2022** COP27, MSA University Booth (Green Zone, 6-20 November 2022, Sharm El-Sheikh, Egypt)
- Apr. 2019** Center of Earth Architecture booth: side exhibition of Africa Rises' Book Fair, MSA University.
- Apr. 2019** MSA University Booth: First Global Forum for Higher Education and Scientific Research "Between Present and the Future," New Administrative Capital, Cairo.
- May 2018** Center of Earth Architecture booth: side exhibition of the visit of the Minister of Environment, MSA University.
- Mar. 2018** Center of Earth Architecture booth: National Conference for Scientific Research, Revealing Egyptian Potential, International Exhibitions & Conferences Center, Cairo.
- Nov. 2017** Center of Earth Architecture booth: Green Urbanism and Innovative Architecture track, the 4th Cairo International Exhibition of Innovation (Cairo Innovates), Cairo International Convention Center.
- Mar. 2017** Center of Earth Architecture booth: side exhibition of the visit and signing protocols with Sabbour Consulting Company, MSA University.
- Nov. 2016** Center of Earth Architecture booth, 3rd Cairo International Exhibition of Innovation (Cairo Innovates), Citadel of Saladin.
- 2010 – 2014** Supervisor and main organizer: the 1st to 5th Annual Architecture Students' Exhibition, Department of Architecture, MSA University.
- Aug. 2001** Participated in "New Vision, New Generation: Works by young Egyptian architects," 13th Citadel Festival, Cairo.