Amal Rabiee Tantawy Mohamed

Associate Professor of Architectural Engineering

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PROFESSIONAL SUMMARY

Associate Professor in Architectural Engineering with extensive academic and research experience in environmental planning, sustainable design, and digital architecture. Experienced in teaching a wide range of architectural and environmental courses, supervising graduation projects, and contributing to scientific research in sustainability, renewable energy, and parametric design. Actively engaged in academic development, curriculum design, and interdisciplinary research integrating environmental and digital methodologies.

ACADEMIC EXPERIENCE

- Head of Architecture Department Future Higher Institute of Engineering, Fayoum
- Associate Professor Department of Architectural Engineering Future Higher Institute of Engineering, Fayoum
- Former Lecturer Egyptian-Korean Faculty of Technological Industry and Energy Beni Suef Technological University
- Former Lecturer Faculty of Engineering, Nahda University
- Former Assistant Lecturer Faculty of Engineering, Nahda University

EDUCATION

- Associate Professor (2025)
- PhD in Environmental Planning and Design (2020) Thesis: Integrated digital methodology using TRNSYS for renewable energy production
- Master's Degree in Environmental Planning and Design (2016) Thesis: Environmental approach for rehabilitating urban communities
- B.Sc. in Architectural Engineering (2009) Fayoum University – Grade: Very Good (80%)

RESEARCH & PUBLICATIONS

1. "Environmental Economic Design of Medium Class Housing Building Models" Published in Journal of Asian Scientific Research, the manuscript number, JASR/1322/2020.

2. "Sustainable strategies to rehabilitate the built environment for urban communities" International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), paper ID IJ90707687, Published in Volume 9, Issue 7, July 2020.

3. "Absorbing Solar Thermal Cooling System, an Evaluation Study of the Environmental Effects on the Interior Space, A New Mid-Rise Housing Project in Cairo" International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET) , paper ID IJ90707673 , Published in Volume 9, Issue 7, July 2020.

4. "Towards advanced sustainable building materials" International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET) , paper ID IJ100606811, Published in Volume 10, Issue 6, June 2021.

5. "Towards formulating an academic frame for the formal and executive specifications of the Modern Parametric Digital Architecture." Published in Beni-Suef University Journal of Basic and Applied Sciences, paper ID (JBAS-D-21-00298R2) , https://doi.org/10.1186/s43088-022-00195-2 , 02 Jan 2022.

6. “A Proposed Digital Systematic Introduction to Measure Innovation and Creativity Levels in Interior Parametric Architectural Design” Published in The Research Square , paper DOI: https://doi.org/10.21203/rs.3.rs-1315683/v1 , 01 Feb 2022.
7. “State strategies and policies towards the use of new and renewable energy in Egypt” Published in the Journal of Engineering Research at the Faculty of Engineering in Shubra, ISSN: 1687-1340. 20 March 2019

8. “activating modern technologies for renewable energies for sustainable and energy-producing housing”, Published in the Journal of Engineering Research at the Faculty of Engineering in Shubra ,ISSN: 1687-1340. 20 March 2019

9. "Bio-Water Management Mechanisms to Inspire New Building Solutions.," Published in The Research Square , paper DOI: 10.21203/rs.3.rs-1612728/v1, online on 02 May 2022.
10. “Design a proposed measurement methodology for the aesthetics of contemporary architecture” Published in the Art and Architecture Journal, (open Access Journal, issued by Luxor University, Faculty of Fine Arts in cooperation with International Center of Cultural Heritage.), to be published in Vol. (4), Issue (2), December 2023.

11. “A Proposed Study to Measure the Impact of Buildings Functions On Their Architectural Facades” Published in the Art and Architecture Journal, (open Access Journal, issued by Luxor University, Faculty of Fine Arts in cooperation with International Center of Cultural Heritage.), to be published in Vol. (4), Issue (2), December 2023.

12. “Ascending sequential Historical Trajectory of Biomimicry In Architectural Buildings Through the Ages Between Strength and Weakness” Published in International Journal of Architectural Engineering and Urban Research, (open Access Journal, issued by El Minya Higher Institute of Engineering & Technology), to be published in Vol. (7), Issue (1), June 2024.

13. “A proposed model for the (Sustainable Ventilation) code to evaluate treatments and strategies for the impact of air movement in architecture”

Published in International Journal of Architectural Engineering and Urban Research, (open Access Journal, issued by El Minya Higher Institute of Engineering & Technology), to be published in Vol. (7), Issue (1), June 2024.

14. "Exploring the Potential of Value Engineering to Reduce the Economic Pressure on the Construction Industry in the Case of Luxury Housing", Published in Mansoura Engineering Journal , open Access Journal, A.M. Seddik Hassan et al. / Mansoura Engineering Journal 49 (2024) 1e15, paper DOI: https://doi.org/10.58491/2735-4202.3213

RESEARCH INTERESTS

- Sustainable Architecture
- Environmental Planning
- Renewable Energy in Buildings
- Digital & Parametric Architecture
- Urban Environmental Rehabilitation
- TECHNICAL SKILLS AutoCAD (2D & 3D)
- 3D Max
- Photoshop
- TRNSYS Simulation
- Architectural Visualization

LANGUAGES

- Arabic – Native
- English – Excellent

ADDITIONAL SKILLS

- Academic Teaching & Supervision
- Research & Scientific Publishing
- Curriculum Development
- Fast Learning & Teamwork

TEACHING EXPERIENCE

- (Department of Architectural Engineering, Faculty of Engineering, Al-Nahda University)
- And (Department of Architectural Engineering, Higher Future Institute of Engineering, Fayoum)
- And (Department of Renewable Energy, Egyptian-Korean College of Technology and Industry, National University of Technology, Beni Suef):

1. Architectural Design "1"
2. Architectural Design "5"
3. Architectural Design "3"
4. Architectural Design "4"
5. Architectural Design "6"
6. Architectural Design "2"
7. Architectural Design "7"
8. Architectural Construction "1"
9- Architectural Construction (3)
10. Executive drawings "1".
11. Executive drawings "2".
12. Environmental control.
13. Lighting and acoustics.
14. Building air conditioning.
16. Shadow and perspective.
17. Architecture.
18. Engineering drawing "1"
19. Engineering drawing "2"
20. Theories of Architecture 1
21. History of Architecture 4
22. History of Architecture 3
23. History of Architecture II
24. Theories of Architecture “2”
25. Human Architectural Studies.
26. Environmental Design and Planning. (elective course)
27. Development and architecture. (elective course)
28. Graduation Project
29. History of Architecture 1
30. Environmental Studies (Environmental Sciences)
31. Occupational Health and Safety
32. Principles of renewable energy
33. Communication skills.
34. Graphic Techniques
35. Interior design.
36. Health and Safety.