

SHERIF M ABDELMOHSEN, PhD, Assoc. AIA

ASSOCIATE PROFESSOR OF DIGITAL MEDIA & DESIGN COMPUTING
ASSOCIATE CHAIR, DEPARTMENT OF ARCHITECTURE
DIRECTOR, ROBOTIC FABRICATION LABORATORY (RFL)
The American University in Cairo (AUC), Cairo, Egypt
CO-FOUNDER & MANAGING PARTNER, UDAAR

Email: sherifmorad@aucegypt.edu

URL: <http://www.aucegypt.edu/fac/sherifabdelmohsen>



SHORT BIOGRAPHY

Sherif Abdelmohsen is associate professor of digital media and design computing, and Associate Chair of the Department of Architecture at the American University in Cairo (AUC), Egypt, which he joined in 2014. He is also director of the Robotic Fabrication Laboratory (RFL), and Chair of the AUC Senate Curriculum Committee. He currently serves as President of the Arab Society for Computation in Architecture, Art, and Design (ASCAAD).

His teaching responsibilities include developing the computer-aided architectural design (CAAD) curriculum, teaching courses related to parametric design, digital fabrication, and virtual reality, and leading and coordinating the tectonics and computational design stream and its senior-level design studios with other colleagues in the department. Abdelmohsen received his PhD degree in architecture from Georgia Institute of Technology, USA (2011), and participated in design computing research and teaching at both Carnegie Mellon University and Georgia Tech. He received his MSc and BSc degrees in architectural engineering from Ain Shams University in 2004 and 2000 respectively.

Abdelmohsen has around 70 articles and book chapters published in international peer-reviewed conferences and journals. He participated as PI, co-PI and team member in several funded research projects, amounting to a total of over \$600,000. His recent research involves several topics, including the development of low-cost soft adaptive façade systems using hygroscopic properties of wood, automated post-occupancy space management using BIM and GIS, the design and fabrication of complex facades using robotic depositing and multi-point forming, and the design, fabrication and robotic assembly of thermally responsive parametric brick wall configurations. He has also supervised and examined more than 30 MSc and PhD students working in the area of CAAD.

At the professional level, Abdelmohsen has participated in award-winning international competitions and in designing architectural projects in the United Arab Emirates, Saudi Arabia, Lebanon, Italy, Germany and Egypt. He is co-founder and managing partner at UDAAR, an international company specialized in architecture, computational design research, and smart building management solutions. He is also the honorary recipient of the Knowledge Application and Notion for Society (KANS) scientific competition (2018), the faculty merit award for best doctoral presentation (2012), the young active researcher award for outstanding research activity (2013), and the ARCC/KING medal for excellence in architectural and environmental design research (2009).

EDUCATION

PhD in Architecture (2011)

School of Architecture, Georgia Institute of Technology, Atlanta, GA, USA

PhD Thesis: An Ethnographically Informed Analysis of Design Intent Communication in BIM-Enabled Architectural Practice

Recipient of Faculty Award of Merit for Best Doctoral Presentation (2010/2011)

MSc in Architecture (2004)

Department of Architecture, Ain Shams University, Cairo, Egypt

MSc Thesis: Towards a Conceptual Framework for Implementing Intelligent Mixed Reality in Architectural Education

BSc in Architecture (2000) (Honors)

Department of Architecture, Ain Shams University, Cairo, Egypt

BSc Graduation Project: Touristic Cultural Complex at Cairo Northern Wall

POSITION

Associate Professor (01/2017 – Present)

Associate Professor of Digital Media and Design Computing in Architecture
Department of Architecture, American University in Cairo (AUC), Egypt

Associate Chair (07/2022 – Present)

Associate Chair, Department of Architecture, American University in Cairo (AUC), Egypt

EMPLOYMENT

September 2020 – Present

Arab Society for Computer-Aided Architectural Design (ASCAAD)

President

April 2017 – Present

UDAAR for Engineering Consultancy and Technology Solutions

Co-Founder, Director of Research and Development

August 2014 – December 2016

Department of Architecture, American University in Cairo (AUC), Egypt

Assistant Professor of Digital Media and Design Computing in Architecture

September 2015 – September 2016

UNii Engineering Consultancy, Abu Dhabi, United Arab Emirates

R&D Developer and Team Leader, UNii Cairo

August 2012 – May 2014

Department of Construction and Architectural Engineering, American University in Cairo (AUC), Cairo, Egypt

Adjunct Faculty

June 2013 – January 2015

KRAFT|Studio (Studio for Kinematic, Robotic, Architectronic and Fabrication Technologies), Cairo, Egypt

Founder and Director

January 2013 – September 2014

FEDA CoReLAB (Faculty of Engineering Department of Architecture, Consultancy for Research Laboratory), Ain Shams University, Cairo, Egypt

Research Manager

September 2012 – January 2013

Arab Academy for Science and Technology, Cairo, Egypt

Part time lecturer

September 2011 – January 2012

Department of Architecture, British University in Egypt (BUE), Cairo, Egypt

Part time lecturer

September 2011 – January 2013, October 2014 – Present

Department of Architecture, Future University in Egypt (FUE), Cairo, Egypt

Part time lecturer

September 2011 – Present

Department of Architecture, Ain Shams University, Cairo, Egypt

Assistant Professor (09/2011 – 11/2016), Associate Professor (11/2016 – Present)

August 2010 – May 2011

School of Architecture, Georgia Institute of Technology, Atlanta, GA, USA

Teaching Assistant, Common First Year

June 2007 – September 2010

AEC Integration Laboratory (Prof. Charles Eastman), Atlanta, GA, USA

Researcher and Member of Georgia Tech Design Computing team

July 2004 – September 2004

Consultant Office (Cube Consultants), Cairo, Egypt

Architect

March 2004 – January 2005

Consultant Office (Prof. Yasser Mansour), Cairo, Egypt

Architect

January 2004 – April 2004

Consultant Office (Maged Fahmy, Emad Aziz), Cairo, Egypt

Architect

October 2003 – May 2005, September 2012 - Present

Arab Academy for Science and Technology, Cairo, Egypt

Teaching Assistant, Part time lecturer (Instructor to student ratio 1: 7)

March 2001 – May 2001

YAT Computer Center, Cairo, Egypt

AutoCAD Instructor (Instructor to student ratio 1: 4)

October 2000 – August 2005

Department of Architecture, Ain Shams University, Cairo, Egypt

Teaching Assistant, Assistant Lecturer (Instructor to student ratio 1: 40)

August 2000 – October 2000

Center for Developing Historic Cairo, Citadel, Cairo, Egypt

Architect

July 1998 – September 1998

Al-Shehab Computer Center, Cairo, Egypt

AutoCAD Instructor

October 1996 – August 2005

Consultant Office (Prof. Dr. Morad Abdelkader)

Architect

COMPUTER SKILLS

CAD and Visualization: AutoCAD, SketchUp, 3DMAX, Adobe Photoshop

Generative design and digital fabrication: Rhino, Grasshopper

Building Information Modeling: Revit, Digital Project, Solibri Model Checker

Programming: Python, Processing, Java

TEACHING EXPERIENCE

AS ASSOCIATE PROFESSOR (2017 – Present)

Department of Architecture, American University in Cairo (AUC), Egypt

ARCH 473/3522 Digital Design Studio and Workshop

ARCH 455/4558 Architectural Design Studio VIII (High Tech)

ARCH 000/4562 Vertical Design Studio B

ARCH 000/4570 Senior Design Studio

ARCH 000/4939 Advanced Architectural Computing

ARCH 490/4980 Senior Project I

ARCH 491/4981 Senior Project II

ARCH 5221 Research Methods in Architecture

FEPD 003 Façade Sustainable Design: Parametric Design for Natural Ventilation

FEPD 004 Façade Production: Fire Protection in Building Façades

Department of Architecture, Ain Shams University, Cairo, Egypt

ARC 221 Theories of Architecture (2)

ARC 616 Interactive and Responsive Architecture

AS ASSISTANT PROFESSOR (2011 – 2016)**Department of Architecture, Ain Shams University, Cairo, Egypt**

ARC 212 Architectural Design (2)

ARC 221 Theories of Architecture (2)

ARC 341 Computer Applications in Architecture (2)

ARC 351 Working Drawings (1)

ARC 451 Working Drawings (2)

ARC 504 Computer Applications in Architecture

ARC 616 Interactive and Responsive Architecture

Department of Architecture, American University in Cairo (AUC), Egypt

ARCH 473/3522 Digital Design Studio and Workshop

ARCH 455/4558 Architectural Design Studio VIII (High Tech)

ARCH 456/4557 Architectural Design Studio VI (Contextual Design)

ARCH 491/4981 Senior Project II (*as advisor and course coordinator*)ARCH 273/1521 Digital Representation Tools for Architects (*as coordinator*)**Department of Architecture, Future University in Egypt (FUE), Cairo, Egypt**

UNV E09 Specific Computer Applications

ARC 231 Graphics and Visual Skills (2)

ARC 322 History and Theories (4)

ARC E10 Advanced Computer Applications in Architecture

Department of Architecture, British University in Egypt (BUE), Cairo, Egypt

Architectural Design (4)

Working Drawings (2)

Department of Architecture, Arab Academy for Science and Technology and Maritime Transport (AASTMT), Cairo, Egypt

AR 428 Computer Applications in Architecture

AR 414 Architectural Design (4)

AS TEACHING ASSISTANT (2000 – 2011):**School of Architecture, Georgia Institute of Technology, USA**

COA 1012 Fundamentals - Design and the Built Environment II

COA 1060 Introduction - Design and the Built Environment

Department of Architecture, Arab Academy for Science and Technology and Maritime Transport, Cairo (AASTMT), Egypt

AR 414 Architectural Design IV

Building Construction I

Department of Architecture, Ain Shams University, Cairo, Egypt

ARC 111 Building Construction (1)

ARC 150 Free Hand Drawing

ARC 151 Visual Design

ARC 161 Sciagraphy and Perspective

ARC 202 Architectural Design (2)

ARC 241 Computer Applications (1)

ARC 271 Computers in Architecture

ARC 311 Architectural Design (3)

ARC 351 Working Drawings (1)

ARC 499 Graduation Project

RESEARCH PROFILE

Web of Science Researcher ID: AAI-2131-2019

ORCID ID: 0000-0002-3580-3749

Number of publications (as of JUL 2022):

30 (Web of Science) / 31 (Scopus) / 73 (Google Scholar)

Number of citations (as of JUL 2022):

136 (Web of Science) / 273 (Scopus) / 629 (Google Scholar)

h-index (as of JUL 2022):

4 (Web of Science) / 7 (Scopus) / 11 (Google Scholar)

Publons Profile:

<https://publons.com/researcher/3303113/sherif-abdelmohsen/>

Scopus Profile:

<https://www.scopus.com/authid/detail.uri?authorId=54890702500>

Google Scholar Profile:

<https://scholar.google.com/citations?user=r7AdywUAAAAJ&hl=en>

Research Gate Profile:

https://www.researchgate.net/profile/Sherif_Abdelmohsen

Academia.edu Profile:

<https://aucegypt.academia.edu/SHERIFMORADABDELMOHSEN>

RESEARCH INTERESTS

- Building Information Modeling (BIM) and pre-occupancy evaluation
 - Space Layout Planning (SLP) and automated building review systems
 - Generative, parametric and algorithmic design, and digital fabrication
 - Ambient Intelligence, physical computing and tangible interfaces
 - Interactive architecture and responsive systems in the built environment
 - Shape shifting façade skins using hygroscopic properties of wood
 - Smart building management and automated facility management systems
 - Sketch understanding, problem solving, and analyzing design activity
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PUBLICATIONS

BOOKS

1- **Abdelmohsen, S. (2012)**, *Communication of Design Intent in BIM-Enabled Architectural Practice: An Ethnographically Informed Analysis*, Lambert Academic Publishing (LAP) GmbH & Co. KG, Saarbrücken, Germany, ISBN: 978-3-8473-7859-4.

<https://www.lap-publishing.com/catalog/details/store/gb/book/978-3-8473-7859-4/communication-of-design-intent-in-bim-enabled-architectural-practice>.

BOOK CHAPTERS

2- Mansour, Y., Iscandar, M., **Abdelmohsen, S.**, Yassa, N. (2020), *Studies on the Workplace Creativity between Theory and Practice*, in: S.H. Adnan (ed.), Recent Advances in Science and Technology, Vol. 4, Chapter 9, pp. 93-99, Book Publisher International, ISBN: 978-93-90206-20-9.

DOI: <https://doi.org/10.9734/bpi/rastr/v4>.

3- **Abdelmohsen, S.**, Adriaenssens, S., Gabriele, S., Olivieri, L., El-Dabaa, R. (2019), *Hygroscapes: Innovative Shape Shifting Facades*, in 'Digital Wood Design: Innovative techniques of representation in Architectural Design', 1st ed. F. Bianconi, M. Filippucci, Springer International Publishing, ISBN 978-3-030-03676-8, DOI: https://doi.org/10.1007/978-3-030-03676-8_26. [Q4, IS: 0.46, SJR: 0.13]

4- **Abdelmohsen, S. (2008)**, Beijing National Aquatics Center, in C Eastman, P Teicholz, R Sacks and K Liston, *BIM Handbook: A Guide to Building Information Modeling for Owners, Managers, Designers, Engineers and Contractors*, Wiley, pp. 375 – 388.

REFEREED JOURNAL ARTICLES

5- El-Dabaa, R., **Abdelmohsen, S. (2022)**, Integrating Performance Indicators in the Production Rules of Shape-Shifting Grammars for Architectural Adaptive Façade Systems, *Architectural Engineering and Design Management (AEDM)*. <https://doi.org/10.1080/17452007.2022.2085654>. [Q1, IS: 2.57, SJR: 0.52]

6- El-Mahdy, D., Gabr, H., **Abdelmohsen, S. (2021)**, SaltBlock as a 3D Printed Sustainable Construction Material in Hot Arid Climates, *Journal of Building Engineering (JOBE)*, Vol. 43, 103134, <https://doi.org/10.1016/j.jobbe.2021.103134>. [Q1, IS: 7.09, SJR: 1.16]

7- **Abdelmohsen, S.**, Massoud, P. (2021), A Material-Based Computation Framework for Parametric Design Education, *Open House International (OHI)*, Vol. 46, No. 3, 459-475. <https://doi.org/10.1108/OHI-02-2021-0043>. [Q3, IS: 0.56, SJR: 0.16]

8- Ezzeldin, M., Assem, A., **Abdelmohsen, S. (2021)**, Automated Assessment of Architectural Spatial Layout Configurations using Fuzzy Logic, *Archnet-IJAR: International Journal of Architectural Research*, Vol. 15, No. 2, pp. 328-343. <https://doi.org/10.1108/ARCH-07-2020-0135>. [Q1, IS: 0.97, SJR: 0.33]

9- El-Dabaa, R., **Abdelmohsen, S.**, Mansour, Y. (2021), Programmable Passive Actuation for Adaptive Building Façade Design using Hygroscopic Properties of Wood, *Wood Material Science & Engineering*, Vol. 16, No.4, pp. 246-259, <https://doi.org/10.1080/17480272.2020.1713885/>. [Q2, IS: 2.91, SJR: 0.51]

10- Nagy, M., Mansour, Y., **Abdelmohsen, S. (2020)**, Multi-Objective Optimization Methods as a Decision Making Strategy, *International Journal of Engineering Research and Technology (IJERT)*, Vol. 9, Issue 3, pp. 516-522, ISSN: 2278-0181, DOI: <http://dx.doi.org/10.17577/IJERTV9IS030480/>. [Q3]

11- Assem, A., **Abdelmohsen, S.**, Ezzeldin, M. (2019), Smart Management of the Reconstruction Process of Post-Conflict Cities, *Archnet-IJAR: International Journal of Architectural Research*, Vol. 14, No. 2, 325-343, DOI: <https://doi.org/10.1108/ARCH-04-2019-0099>. [Q1, IS: 0.81, SJR: 0.33]

12- **Abdelmohsen, S.**, Adriaenssens, S., El-Dabaa, R., Gabriele, S., Olivieri, L. and Teresi, L. (2019), A Multi-Physics Modeling Approach for Modeling Hygroscopic Behavior in Wood Low-Tech Architectural Adaptive Systems, *Computer-Aided Design (CAD)*, Vol. 106, 43-53. DOI: <https://doi.org/10.1016/j.cad.2018.07.005>. [Q1, IS: 3.66, SJR: 0.95]

13- **Abdelmohsen, S.**, Tarabishy, S. (2017), Optimized Design to Robotic Production: Integrating Multipoint Forming and Free Form Material Deposition in the Mass Customization of Double Curved Facades, *International Journal of Parallel, Emergent and Distributed Systems (IJPEDS)*, Vol. 32, 180-189, DOI: <https://doi.org/10.1080/17445760.2017.1390097>. [Q3, IS: 0.88, SJR: 0.35]

14- **Abdelmohsen, S.**, Massoud, P., Tarabishy, S., Hassab, A. (2017), Rule-based vs. Intuition-based Generative Design: An Inquiry into the Digital Chain Concept in Undergraduate Architectural Education, *International Journal of Parallel, Emergent and Distributed Systems (IJPEDS)*, Vol. 32, 199-209, DOI: <https://doi.org/10.1080/17445760.2017.1390102>. [Q3, IS: 0.88, SJR: 0.35]

15- **Abdelmohsen, S. (2014)**, An Inquiry into Designing in Context using Generative Systems, *International Journal of Architectural Computing (IJAC)*, Vol. 12, No. 4, 477-494. DOI: <https://doi.org/10.1260/1478-0771.12.4.477>. [Q3, IS: 0.67, SJR: 0.37]

16- **Abdelmohsen, S. (2014)**, A BIM-based Framework for Outdoor Circulation Rule Checking, in *Revista DeArquitectura*, Académico Departamento de Urbanismo, Facultad de Arquitectura y Urbanismo, Universidad de Chile, Chile, Vol. 18, No. 26, pp. 20-28. DOI: <https://doi.org/10.5354/0719-5427.2014.32537>.

17- Lee, J.-K., Lee, J., Jeong, Y.-S., Sheward, H., Sanguinetti, P., **Abdelmohsen, S.**, Eastman, C. (2012), Development of Space Database for Automated Building Design Review Systems, *Automation in Construction*, Vol. 24, 203-212, <http://dx.doi.org/10.1016/j.autcon.2012.03.002>. [Q1, IS: 3.73, SJR: 2.40]

- 18- Sanguinetti, P., **Abdelmohsen, S.**, Lee, J.M., Lee, J.K., Sheward, H., Eastman, C. (2012), General System Architecture for BIM: An Integrated Approach for Design and Analysis, *Advanced Engineering Informatics*, Vol. 26, Issue 2, 317-333, <http://dx.doi.org/10.1016/j.aei.2011.12.001>. [Q1, IS: 3.55, SJR: 1.60]
- 19- Eastman, C., Lee, J.-K., Sheward, H., Sanguinetti, P., Jeong, Y.-S., Lee, J., **Abdelmohsen, S.** (2009), Automated Assessment of Early Concept Designs, in *Architectural Design*, Vol. 79 No. 2: 52-57, DOI: <https://doi.org/10.1002/ad.851>. [Q3, IS: 0.06, SJR: 0.15]

NON-REFEREED JOURNAL ARTICLES

- 20- Esmael, N., Hosny, S., Sabry, H., **Abdelmohsen, S.** (2020), A Biophilic Approach for Optimizing Daylighting Performance and Views-Out in Intensive Care Units Using Combined Light Shelf, *Engineering Research Journal (ERJ)*, Faculty of Engineering, Helwan University, Vol. 165, pp. 57-77. DOI: <https://doi.org/10.21608/ERJ.2020.131806>.
- 21- Hosny, S., **Abdelmohsen, S.**, Mansour, S. (2019), A Conceptual Framework for Enriching Architectural Classroom with Mobile Augmented Reality, *Journal of Al-Azhar University Engineering Sector (JAUES)*, Vol. 14, No. 50, pp. 158-175. <https://doi.org/10.21608/AUEJ.2019.28486>.
- 22- El-Halawany, N., El-Daly, H., **Abdelmohsen, S.** (2018), A User-centric Approach to optimize Visitors' Experience in Exhibition Spaces using Parametric Spatial Analysis, *Academic Research Community (ARCHive)*, Vol. 2, No. 3, pp. 1-10, DOI: <http://dx.doi.org/10.21625/archive.v2i3>.
- 23- Mansour, Y., Iscandar, M., **Abdelmohsen, S.**, Yassa, N. (2016), Workplace Creativity between Theory and Practice, *Middle East Journal of Applied Sciences*, Vol. 6, No. 4, pp. 878-883, ISSN 2077-4613.
- 24- Hosny, S., Elkholy, G., **Abdelmohsen, S.**, Mazen, M. (2013), Enhancing BIM Workflow Using the Auto-Finish Macro (AFM), *Journal of Al Azhar University Engineering Sector (JAUES)*, Vol. 8, No. 26, 214-223.
- 25- Hosny, S., **Abdelmohsen, S.** (2004), Integrating Intelligent Mixed Reality in Architectural Education: A Theoretical Model, in *Al Azhar University Engineering Journal*, Cairo, Egypt, Vol. 7 No. 3, pp. 557-568.

REFEREED CONFERENCE PAPERS

- 26- El-Dabaa, R., **Abdelmohsen, S.** (2022), Deriving the Production Rules of Shape-Shifting Grammars for Adaptive Façades: The Case of Hygromorphic Thermo-bimetal Composites ($H_M T_M$), in Gero, J. (ed.), *Design Computing and Cognition DCC'20*, pp. 129-148, Springer, Cham. https://doi.org/10.1007/978-3-030-90625-2_8.
- 27- Ibrahim, A., **Abdelmohsen, S.**, Zayan, A. and Omar, W. (2022), Hygromorphs: Exploring Morphologies of Architectural Adaptive Systems using Hygroscopic Properties of Wood, accepted for publication in *Advances in Science, Technology & Innovation (ASTI)*, Springer.
- 28- El-Khouly, T., **Abdelmohsen, S.**, Riad, A., Abdelkhalek, J. and Abdelgawad, N. (2021), Heritage-Inspired Interactivity: Traditional Geometric Patterns as an Inspiration for Interactive Architectural Prototypes, In: XXV International Conference of the Iberoamerican Society of Digital Graphics. São Paulo: Blucher, 2021, p. 617-628. ISSN 2318-6968. DOI: <https://doi.org/10.5151/sigradi2021-381>.
- 29- El-Dabaa, R., Salem, I., **Abdelmohsen, S.** (2021), Digitally Encoded Wood: 4D Printing of Hygroscopic Actuators for Architectural Responsive Skins, in S. Abdelmohsen. T. El-Khouly, Z. Mallasi, A. Bennadji (eds.), *Architecture in the Age of Disruptive Technologies: Transformation and Challenges*, proceedings of the 9th International Conference of the Arab Society for Computer Aided Architectural Design (ASCAAD 2021), American University in Cairo, Cairo, Egypt, pp. 241-252. ISBN 978-1-907349-20-1. http://papers.cumincad.org/cgi-bin/works/paper/ascaad2021_083
- 30- **Abdelmohsen, S.**, Massoud, P. (2021), Material-Based Parametric Form Finding: Learning Parametric Design through Computational Making, in S. Abdelmohsen. T. El-Khouly, Z. Mallasi, A. Bennadji (eds.), *Architecture in the Age of Disruptive Technologies: Transformation and Challenges*, proceedings of the 9th International Conference of the Arab Society for Computer Aided Architectural

Design (ASCAAD 2021), American University in Cairo, Cairo, Egypt, pp. 521-535. ISBN 978-1-907349-20-1. http://papers.cumincad.org/cgi-bin/works/paper/ascaad2021_118

31- Bakir, R., **Abdelmohsen, S.**, Alsaadani, S. (2021), Student Experiences of Online Design Education Post COVID-19: A Mixed Methods Study, in S. Abdelmohsen. T. El-Khouly, Z. Mallasi, A. Bennadji (eds.), *Architecture in the Age of Disruptive Technologies: Transformation and Challenges*, proceedings of the 9th International Conference of the Arab Society for Computer Aided Architectural Design (ASCAAD 2021), American University in Cairo, Cairo, Egypt, pp. 142-155. ISBN 978-1-907349-20-1. http://papers.cumincad.org/cgi-bin/works/paper/ascaad2021_142

32- Aly, Z., Ibrahim, A., **Abdelmohsen, S.** (2021), Augmenting Passive Actuation of Hygromorphic Skins in Desert Climates: Learning from Thorny Devil Lizard Skins, in S. Abdelmohsen. T. El-Khouly, Z. Mallasi, A. Bennadji (eds.), *Architecture in the Age of Disruptive Technologies: Transformation and Challenges*, proceedings of the 9th International Conference of the Arab Society for Computer Aided Architectural Design (ASCAAD 2021), American University in Cairo, Cairo, Egypt, pp. 264-278. ISBN 978-1-907349-20-1. http://papers.cumincad.org/cgi-bin/works/paper/ascaad2021_146

33- Hassab, A., **Abdelmohsen, S.**, Abdallah, M. (2021), Generative Design Methodology for Double Curved Surfaces using AI, in S. Abdelmohsen. T. El-Khouly, Z. Mallasi, A. Bennadji (eds.), *Architecture in the Age of Disruptive Technologies: Transformation and Challenges*, proceedings of the 9th International Conference of the Arab Society for Computer Aided Architectural Design (ASCAAD 2021), American University in Cairo, Cairo, Egypt, pp. 622-635. ISBN 978-1-907349-20-1. http://papers.cumincad.org/cgi-bin/works/paper/ascaad2021_112

34- Ibrahim, A., **Abdelmohsen, S.**, Zayan, A., Omar, W. (2020), Hygromorphs: Exploring Morphologies of Architectural Adaptive Systems using Hygroscopic Properties of Wood, in proceedings of the 3rd International Conference on Parallelism in Architecture, Engineering and Computing Techniques (PACT 2020), University of East London, London, UK.

35- Ibrahim, A., **Abdelmohsen, S.**, Zayan, A., Omar, W. (2020), Extending the Passive Actuation of Low-Tech Architectural Adaptive Systems by Integrating Hygroscopic and Thermal Properties of Wood, in Werner, L. and Koering, D. (eds.), *Anthropologic: Architecture and Fabrication in the Cognitive Age*, Proceedings of the 38th eCAADe International Conference, Volume 2, TU Berlin, Berlin, Germany, pp. 641-650. http://papers.cumincad.org/cgi-bin/works/paper/ecaade2020_220.

36- **Abdelmohsen, S.**, Hassab, A. (2020), A Computational Approach for the Mass Customization of Materially Informed Double Curved Façade Panels, In: Holzer D., Nakapan W., Globa A. and Koh I. (eds.). "RE: Anthropocene, Design in the Age of Humans". Proceedings of the 25th International Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA), Chulalongkorn University, Bangkok, Thailand, Vol. 1, pp. 163-172. http://papers.cumincad.org/cgi-bin/works/paper/caadria2020_281. [IF: 0.29]

37- **Abdelmohsen, S.**, Assem, A., Ezzeldin, M. (2020), School2Share (S2S): A Computational Approach for the Efficient Management of Shared Facilities in Egypt, In: Kamel, S., Sabry, H., Hassan, G., Refat, M., Elshater, A., Abd Elrahman, A., Hassan, D. and Rashed, R. (eds.) *Architecture and Urbanism: A Smart Outlook: Proceedings of the 3rd International Conference on Architecture and Urban Planning*, Cairo, Egypt. Springer, Cham. DOI: https://doi.org/10.1007/978-3-030-52584-2_14.

38- Omar, M., Kamel, S., Hassan, D., **Abdelmohsen, S.** (2020), Biomimetic Approaches in Architectural Design Education, In: Kamel, S., Sabry, H., Hassan, G., Refat, M., Elshater, A., Abd Elrahman, A., Hassan, D. and Rashed, R. (eds.) *Architecture and Urbanism: A Smart Outlook: Proceedings of the 3rd International Conference on Architecture and Urban Planning*, Cairo, Egypt. Springer, Cham. DOI: https://doi.org/10.1007/978-3-030-52584-2_2.

39- Elbaz, N., Kamel, S., **Abdelmohsen, S.** (2020), Heritage Building Information Modelling: Towards a New Era of Interoperability, In: Kamel, S., Sabry, H., Hassan, G., Refat, M., Elshater, A., Abd Elrahman, A., Hassan, D. and Rashed, R. (eds.) *Architecture and Urbanism: A Smart Outlook: Proceedings of the 3rd International Conference on Architecture and Urban Planning*, Cairo, Egypt. Springer, Cham. DOI: https://doi.org/10.1007/978-3-030-52584-2_17.

- 40- El-Dabaa, R., **Abdelmohsen, S.**, Mansour, Y. (2020), Encoding Latent Properties of Hygromorphic-Thermobimetal Composites as a Passive Mechanism for Adaptive Building Skins, In: Kamel, S., Sabry, H., Hassan, G., Refat, M., Elshater, A., Abd Elrahman, A., Hassan, D. and Rashed, R. (eds.) *Architecture and Urbanism: A Smart Outlook: Proceedings of the 3rd International Conference on Architecture and Urban Planning*, Cairo, Egypt. Springer, Cham. DOI: https://doi.org/10.1007/978-3-030-52584-2_10.
- 41- **Abdelmohsen, S.**, Massoud, P., El-Dabaa, R., Ibrahim, A., and Mokbel, T. (2019), The Effect of Hygroscopic Design Parameters on the Programmability of Laminated Wood Composites for Adaptive Façades, in: Lee J.H. (eds) *Computer-Aided Architectural Design. "Hello Culture"*. CAAD Futures 2019. Communications in Computer and Information Science (CCIS), Vol. 1028, Springer, Singapore. Chapter 26, pp. 372-383, DOI: https://doi.org/10.1007/978-981-13-8410-3_26. [Q4, IS: 0.57, SJR: 0.21]
- 42- **Abdelmohsen, S.**, El-Dabaa, R. (2019), H_MT_M: Hygromorphic-Thermobimetal Composites as a Novel Approach to Enhance Passive Actuation of Adaptive Façades, in proceedings of the *18th CAAD Futures 2019 International Conference*, Daejeon, Korea, pp. 290 - 300. http://papers.cumincad.org/cgi-bin/works/paper/cf2019_038.
- 43- **Abdelmohsen, S.**, Tarabieh, K., Salem, I., El-Ghazi, Y., El-Dabaa, R. Hassan, A. (2019), Coupling Parametric Design and Robotic Assembly Simulation to Generate Thermally Responsive Brick Walls, in proceedings of the 16th IBPSA International Conference (BS 2019), Rome, Italy, p. 3006-3013, <https://doi.org/10.26868/25222708.2019.210904>.
- 44- **Abdelmohsen, S.**, Assem, A., Ezzeldin, M. (2019), A Fuzzy-Based Approach for Generating Spatial Layout Configurations, in Sousa, JP, Xavier, JP and Castro Henriques, G (eds.), "Architecture in the Age of the 4th Industrial Revolution" - Proceedings of the 37th eCAADe and 23rd SIGraDi Conference - Volume 2, University of Porto, Porto, Portugal, 11-13 September 2019, pp. 35-44. http://papers.cumincad.org/cgi-bin/works/paper/ecaadesigradi2019_290.
- 45- El-Baz, N., Kamel, S., **Abdelmohsen, S.** (2019), Architectural Heritage between Visualization and H-BIM, in proceedings of *AR-UP 2019: Architecture & Urbanism... A Smart Outlook*, Cairo, Egypt, pp. 44-51, ISBN: 978-977-237-415-1.
- 46- **Abdelmohsen, S.**, El-Dabaa, R., Ibrahim, A., Massoud, P. and Mokbel, T. (2018), A Computational Approach for Soft Adaptive Building Skins using Hygromorphic and Thermobimetal Composites, *Proceedings of the International Conference on Cross-Disciplinary Research in Architecture (RCA 2018)*, pp. 64-67, TU Kaiserslautern, Kaiserslautern, Germany.
- 47- Tarabieh, K., **Abdelmohsen, S.**, El-Ghazi, Y., El-Dabaa, R. and Hassan, A. (2018), Parametric Investigation of Brick Extrusion Pattern using Thermal Simulation, *Proceedings of the 4th Building Simulation and Optimization Conference (BSO 2018)*, Cambridge, UK, pp. 597 - 604. <http://www.ibpsa.org/proceedings/BSO2018/6A-4.pdf>.
- 48- **Abdelmohsen, S.**, Massoud, P., El-Dabaa, R., Ibrahim, A., and Mokbel, T. (2018), A Computational Method for Tracking the Hygroscopic Motion of Wood to develop Adaptive Architectural Skins, In: Kepczynska-Walczak, A, Bialkowski, S (eds.), *Proceedings of the 36th eCAADe International Conference*, Lodz, Poland, Volume 2, pp. 253 - 262. http://papers.cumincad.org/cgi-bin/works/paper/ecaade2018_370.
- 49- **Abdelmohsen, S.**, Eldabaa, R. (2018), A Methodology for Evaluating the Hygroscopic Behavior of Wood in Adaptive Building Skins using Motion Grammar, IOP Conference Series: Materials Science and Engineering **362** (2018) 012011, DOI: <https://doi.org/10.1088/1757-899X/362/1/012011>. [IS: 0.54, SJR: 0.25]
- 50- Tarabieh, K., **Abdelmohsen, S.**, El-Ghazi, Y., El-Dabaa, R., Hassan, A. and Amer, M. (2017), Parametric Investigation of Three Types of Brick Bonds for Thermal Performance in a Hot Arid Climate Zone, in L. Brotas, S. Roaf, F. Nicol (Eds.), *Proceedings of the 33rd Passive Low Energy Architecture International Conference (PLEA 2017)*, Edinburgh, UK, pp. 3699 - 3706. ISBN: 978-0-9928957-5-4.
- 51- El-Zanfaly, D., **Abdelmohsen, S.** (2017), Imitation in Action: A Pedagogical Approach for Making Kinetic Structures, in G. Çağdaş, M. Özkar, L.F. Gül and E. Gürer (Eds.): *Future Trajectories of*

Computation in Design: proceedings of the 17th CAAD Futures 2017 International Conference, Cenkler Matbaa, Istanbul, Turkey, pp. 533 - 545. ISBN: 978-975-561-482-3. http://papers.cumincad.org/cgi-bin/works/paper/cf2017_533.

52- **Abdelmohsen S.**, Assem A., Tarabishy S., Ibrahim A. (2017), A Heuristic Approach for the Automated Generation of Furniture Layout Schemes in Residential Spaces, In: Gero J. (eds) *Design Computing and Cognition '16*. Springer, Cham, pp 459-475. DOI: https://doi.org/10.1007/978-3-319-44989-0_25.

53- **Abdelmohsen, S.**, Tarabishy, S. (2016), Optimized Design to Robotic Production: Integrating Multipoint Forming and Free Form Material Deposition in the Mass Customization of Double Curved Facades, in H. Abdalla, G. Retsin, S. Abdelmohsen, A. Barracco (eds.), *proceedings of the International Conference of Parallelism in Architecture, Environment and Computing (PACT)*, pp. 109-116.

54- **Abdelmohsen, S.**, Massoud, P., Tarabishy, S. and Hassab, A. (2016), Rule-based versus Intuition-based Generative Design: An Inquiry into the Digital Chain Concept in Undergraduate Architectural Education, in H. Abdalla, G. Retsin, S. Abdelmohsen, A. Barracco (eds.): *proceedings of the International Conference of Parallelism in Architecture, Environment and Computing (PACT)*, pp. 269-281.

55- **Abdelmohsen, S.**, Massoud, P. and Elshafei, A. (2016), Using Tensegrity and Folding to Generate Soft Responsive Architectural Skins, In: Herneoja, Aulikki; Toni Österlund and Piia Markkanen (eds.), *Proceedings of the 34th eCAADe International Conference*, Oulu, Finland, Vol. 1, pp. 529-536. http://papers.cumincad.org/cgi-bin/works/paper/ecaade2016_210.

56- Bakir, R., **Abdelmohsen, S.** (2016), Integrating Nanotechnology in the Design Process: An Ethnographic Study in Architectural Practice in Egypt, in P. Lloyd and E. Bohemia (Eds.): *Future-Focused Thinking: proceedings of the Design Research Society (DRS 2016) 50th International Conference*, Brighton, UK, Vol. 5, pp. 1971-1986. <https://www.drs2016.org/133>.

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- 63- **Abdelmohsen, S.,** Lee, J.-K., Eastman, C. (2011), Automated Cost Analysis of Concept Design BIM Models, in P. Leclercq, A. Heylighen, and G. Martin (eds.), *Designing Together: CAAD Futures 2011*, PUL, pp. 403-418. http://papers.cumincad.org/cgi-bin/works/paper/cf2011_p109.
- 64- **Abdelmohsen, S.,** El-Khouly, T. (2009), Representing Reflective Practice in a Remote Design Collaboration Process, in digital proceedings of the 3rd Conference of the *International Association of Societies of Design Research (IASDR 2009)*, COEX, Seoul, Korea, pp. 1317 - 1326. <http://papers.cumincad.org/cgi-bin/works/paper/ee30>.
- 65- **Abdelmohsen, S.,** Do, E. (2009), Analyzing the Significance of Problem Solving Expertise and Computational Tool Proficiency in Design Ideation, in T. Tidafi and T. Dorta (eds.), *Joining Languages, Cultures and Visions: CAAD Futures 2009*, PUM, pp. 273 - 287. http://papers.cumincad.org/cgi-bin/works/paper/cf2009_273.
- 66- **Abdelmohsen, S.,** Do, E. (2008), Energy Puppet: An Ambient Awareness Interface for Home Energy Consumption, in digital proceedings of the 7th *International Workshop on Social Intelligence Design (SID 2008)*, School of Architecture, Universidad de Puerto Rico, San Juan, Puerto Rico. <http://papers.cumincad.org/cgi-bin/works/paper/9609>.
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- 68- Sanguinetti, P., **Abdelmohsen, S.** (2008), The Generalized Model of Expertise: Defining Strategies in Building Information Modeling, In Extended Abstract Proceedings of the 3rd International Conference on Design Computing and Cognition (DCC08), pp. 31-32. <http://papers.cumincad.org/cgi-bin/works/paper/de84>.
- 69- **Abdelmohsen, S.,** Do, E. (2007), Tracking Design Development through Decomposing Sketching Processes, in Proceedings of the *International Association of Societies of Design Research (IASDR 2007)*, Hong Kong Polytechnic University School of Design, Hong Kong. <http://papers.cumincad.org/cgi-bin/works/paper/16fe>.
- 70- Sanguinetti, P., **Abdelmohsen, S.** (2007), On the Strategic Integration of Sketching and Parametric Modeling in Conceptual Design, in Proceedings of the 27th *Annual Conference of the Association for Computer Aided Design in Architecture (ACADIA 2007)*, Halifax, Nova Scotia, Canada, pp. 242-249. http://papers.cumincad.org/cgi-bin/works/paper/acadia07_242.
- 71- **Abdelmohsen, S.,** Do, E. (2007), TangiCAD: Tangible Interface for Manipulating Architectural 3D Models, in proceedings of the 12th *International Conference on Computer Aided Architectural Design Research in Asia (CAADRIA 2007)*, Nanjing, China, pp. 29-36. http://papers.cumincad.org/cgi-bin/works/paper/caadria2007_029.

NON- REFEREED CONFERENCE PAPERS

- 72- **Abdelmohsen, S.,** Assem, A., Ezzeldin, M. (2018), A Computational Approach for the Smart City Management of the Reconstruction Process in Baghdad, in proceedings of the *International Conference on Post-Terrorist Reconstruction and Heritage Restoration in Iraq and Syria*, Baghdad, Iraq.
- 73- Yassa, N., **Abdelmohsen, S.,** Mansour, Y. and Iscandar, M. (2016), "This Office makes me more Creative": Creative Class Workers' Experiences in Innovative Office Spaces, *BUE International Conference on Sustainable Vital Technologies in Engineering and Informatics (BUE ACE1 SVT2016)*.
- 74- Mansour, Y., **Abdelmohsen, S.,** Mostafa, A., Bakir, R. (2016), The Injection of Nanotechnology in the Architectural Design Process, in proceedings of the 8th *International Conference on Nanotechnology in Construction (NTC 2016)*, Sharm El-Sheikh, Egypt.

EDITORIAL ARTICLES

75- El-Khouly, T., **Abdelmohsen, S.**, Mallasi, Z. (2021), Guest Editorial, *Open House International (OHI)*, Vol. 46, No. 3, 342-347. <https://doi.org/10.1108/OHI-09-2021-191>. [Q3, IS: 0.56, SJR: 0.16]

EDITED PROCEEDINGS

76- **Abdelmohsen, S.**, El-Khouly, T., Mallasi, Z., Bennadji, A. (2021), Architecture in the Age of Disruptive Technologies: Transformation and Challenges, Robert Gordon University, Scott Sutherland School of Architecture and Built Environment, Aberdeen, Scotland, UK. ISBN: 978-1-907349-20-1.

77- Abdulla, H., Retsin, G., **Abdelmohsen, S.**, Barracco, A. (2016), Parallelism in Architecture, Environment and Computing Techniques (PACT), School of Architecture, Computing, and Engineering, University of East London, UK.

ONLINE ARTICLES

78- **Abdelmohsen, S.**, Eastman, C. (2008), Making the Water Cube, in *Architecture Week online*, Article excerpted from BIM Handbook by Chuck Eastman et al., Copyright © 2008, with permission of the publisher, John Wiley & Sons. http://www.architectureweek.com/2008/0430/tools_1-1.html.

ARTICLES UNDER REVIEW

El-Mahdy, D., **Abdelmohsen, S.**, Gabr, H. (2022), Assessment of X-Salt Characterization: A Salt-Based Construction Material using Natural Adhesives for Additive Manufacturing, *Smart and Sustainable Built Environment*.

SCIENTIFIC REVIEWS & MEMBERSHIP OF EDITORIAL AND ADVISORY BOARDS

Number of reviewed articles: 109

Number of verified reviewed articles on Publons: 68

<https://publons.com/dashboard/records/review/>

Reviewer, XXVI Congreso de la Sociedad Iberoamericana de Grafica Digital (SIGraDi 2022).

Member, Scientific Committee, *Arab Society for Computer Aided Architectural Design (ASCAAD 2022)* 10th International Conference, Debbieh, Lebanon.

Reviewer, XXV Congreso de la Sociedad Iberoamericana de Grafica Digital (SIGraDi 2021).

Member, Advisory Board, *Journal of Design Planning and Aesthetics Research*, Selcuk University, Turkey (since 2021).

Reviewer, *Arab Society for Computer Aided Architectural Design (ASCAAD 2021)* 9th International Conference, Cairo, Egypt.

Reviewer, *PLOS ONE (Public Library of Science)* open access international journal (since 2020).

Reviewer, Congreso de la Sociedad Iberoamericana de Grafica Digital (SIGraDi 2020).

Member of Editorial Board, *Creative Sustainable Development*, Faculty of Architecture, Design & Built Environment, Beirut Arab University, Lebanon (since 2019).

Reviewer, *Archnet-IJAR: International Journal of Architectural Research* (since 2019).

Reviewer, *Education and Research in Computer Aided Architectural Design in Europe (eCAADe/SiGraDi 2019)* International Conference, Porto, Portugal.

Member of Editorial Board, *Architecture and Planning Journal (APJ)*, Faculty of Architecture, Design & Built Environment, Beirut Arab University, Lebanon (since 2018).

Reviewer, *Journal of Engineering and Applied Science (JEAS)*, Faculty of Engineering, Cairo University, Egypt (since 2018).

Reviewer, *International Conference for Sustainable Design of the Built Environment* (SDBE 2018), London, UK.

Reviewer, Promotion documents for Associate Professor, Faculty of Architecture – Design & Built Environment, Beirut Arab University, Beirut, Lebanon.

Reviewer, *Education and Research in Computer Aided Architectural Design in Europe* (eCAADe 2018) International Conference, Lodz, Poland.

Reviewer, *Qatar National Research Fund* (QNRF), since May 2016.

Reviewer and Guest Editor, *International Journal of Parallel, Emergent and Distributed Systems*, since December 2016.

Reviewer, *CAADence in Architecture* International Conference, Budapest University of Technology and Economics, Hungary, 2016.

Reviewer, *Education and Research in Computer Aided Architectural Design in Europe* (eCAADe 2016) International Conference, Oulu, Finland.

Reviewer, *The International Conference of the Association of Collegiate Schools of Architecture* (ACSA), 2016.

Member of Editorial Board, *Environmental Sciences and Sustainable Development* (ESSD) Journal, since January 2016.

Reviewer, *International Journal of Architectural Computing* (IJAC), since September 2015.

Guest Editor and Reviewer, *Parallelism in Architecture and Computing Techniques* (PACT) International Conference, University of East London (UEL), London, UK, since January 2015.

Reviewer, *Education and Research in Computer Aided Architectural Design in Europe* (eCAADe 2015) International Conference, Vienna, Austria.

Reviewer, *Computer Aided Architectural Design Futures* (CAAD Futures 2015) Conference, Sao Paulo, Brazil.

Reviewer, *Ain Shams Engineering Journal* (ASEJ), since July 2014.

Reviewer, *Education and Research in Computer Aided Architectural Design in Europe* (eCAADe 2014) International Conference, NewCastle, UK.

Reviewer, *Automation in Construction* (AUTCON) journal, since August 2013.

Reviewer, *Arab Society for Computer Aided Architectural Design* (ASCAAD 2013) Conference, Effat University, Jeddah, Kingdom of Saudi Arabia.

Reviewer, *Education and Research in Computer Aided Architectural Design in Europe* (eCAADe 2013) International Conference, TU Delft, Netherlands.

Reviewer, *Computer Aided Architectural Design Futures* (CAAD Futures 2013) International Conference, Shanghai, China.

Reviewer, *XVII Congreso de la Sociedad Iberoamericana de Grafica Digital* (SIGraDi 2013), Universidad Tecnica Federico Santa Maria, Valparaiso, Chile.

Reviewer, *Education and Research in Computer Aided Architectural Design in Europe* (eCAADe 2012) International Conference, Prague, Czech Republic.

Reviewer, *Association for Computer Aided Design in Architecture* (ACADIA 2011) Conference, Calgary/Banff, Canada.

Reviewer, *Education and Research in Computer Aided Architectural Design in Europe* (eCAADe 2011) International Conference, Ljubljana, Slovenia.

Reviewer, *Association for Computer Aided Design in Architecture* (ACADIA 2010) Conference, The Cooper Union, New York City, NY, USA.

Reviewer, *Education and Research in Computer Aided Architectural Design in Europe* (eCAADe 2010) International Conference, Zurich, Switzerland.

DESIGN REVIEWS & EXTERNAL JURY PANELS

Member of Jury Panel, "Light upon Light" Student Lighting Design Competition, Egypt (2022).

External reviewer, DELAB's Graduation Project: Programmed Brick Architecture, Interdisciplinary Graduation Project of Architecture and Mechatronics, Faculty of Engineering Ain Shams University, Cairo, Egypt (2022).

External reviewer, Graduation Project, Architecture Engineering Program, Faculty of Engineering, Cairo University, Cairo, Egypt (2021).

External reviewer, Interdisciplinary Graduation Project (iGP): Smart Remote Neighborhood, Department of Architecture, Faculty of Engineering Ain Shams University, Cairo, Egypt (2020).

External reviewer, Graduation Project, Architecture Engineering Program, Faculty of Engineering and Materials Science, German University in Cairo (GUC), Cairo, Egypt (2019).

External reviewer, Graduation Project, Department of Architectural Engineering and Environmental Design, Arab Academy for Science, Technology and Maritime Transport, Cairo Sheraton Campus, Cairo, Egypt (2019).

External reviewer, Graduation Project, Department of Architectural Engineering and Environmental Design, Arab Academy for Science, Technology and Maritime Transport, Abu Qir Campus, Alexandria, Egypt (2019).

Chair of Jury Panel, "Egypt on Mars" International Competition, Egypt (2019).

External reviewer, Building Construction IV, Faculty of Architecture, Design and Built Environment, Beirut Arab University (BAU) (2017).

External reviewer, Graduation Project, Department of Architectural Engineering and Environmental Design, Arab Academy for Science, Technology and Maritime Transport, Alexandria Campus, Cairo, Egypt (2017).

External reviewer, ARCH 1511, ARCH 2512, ARCH 2551, ARCH 3553, ARCH 3554, ARCH 4555, ARCH 4557, ARCH 4561, ARCH 4801, ARCH 4980, Department of Architecture, the American University in Cairo (AUC), Egypt (2012-Present).

External reviewer, Design II and Design V studio, Department of Architectural Engineering and Environmental Design, Arab Academy for Science, Technology and Maritime Transport, Sheraton Campus, Cairo, Egypt (2016).

Jury member, UN-USUAL-IT Workshop and Competition, organized by NIIT Studio, Alexandria, Egypt (2015).

External reviewer, Design II and Design III studios, Department of Architectural Engineering and Environmental Design, Arab Academy for Science, Technology and Maritime Transport, Smart Village Campus, Cairo, Egypt (2014-2015).

Jury member, RobArch (01) Kinetic Architecture Workshop and Competition, organized by Algorithm and Algorithmic Visual Lab (AVL), Cairo, Egypt (2014).

Jury member, Green and Sustainable Multi-Use Building Project, University to Work (UTW) Initiative, Engineering Consultants Group (ECG), Egypt (2014).

Member of Jury Panel, "Fanoos Ramadan" Competition, Fablab Egypt (2012).

External reviewer, Common First Year (CFY) design studio, School of Architecture, Georgia Institute of Technology, Atlanta, GA, USA (2010-2011).

External reviewer, design studio project, School of Architecture, Design and Planning, University of Kansas, Online Review (2010).

RESEARCH PROJECTS AND GRANTS

AWARDED GRANTS AND ACTIVE RESEARCH PROJECTS**June 2021 – July 2021****Robotic 3D Metal Printing Workshop (WAAM) for Architects***[Funded by the American University in Cairo: \$1,502]*Role: **Co-Principal Investigator (co-PI)**, Department of Architecture, The American University in Cairo, Cairo, Egypt

Scope: Organizing an interdisciplinary workshop between the Department of Architecture and the Department of Mechanical Engineering at the American University in Cairo (AUC) for robotic 3D metal printing for the DigitalFUTURES World 2021 InclusiveFUTURES Workshop.

<https://www.digitalfutures.world/workshops/84.html>.

[AUC MENG Team: Hanadi Salem, Ahmed Elsokaty; AUC ARCH Team: Sherif Abdelmohsen, Omar Geneidy]

December 2020 – July 2021**Climate Resilience of Micro, Small & Medium Industrial Workplaces in Egypt: A future-fit approach to retrofit** *[Funded by the British Council: \$46,800]*Role: **Team member**, Department of Architecture, The American University in Cairo, Cairo, EgyptScope: Developing the awareness, skills, and technical know-how to identify, assess, and mitigate energy and indoor environment-related challenges in Egyptian small and medium industrial workplaces (MSMs), in collaboration with University College London (UCL). <https://cresmi.org/>

[AUC Team: Khaled Tarabieh, Sherif Goubran; UCL Team: Rokia Raslan]

December 2020 – Present**Activating an Inter-disciplinary Immersive Learning Space for 21st Century Engineering Students***[Funded by the American University in Cairo: EGP 224,600]*Role: **Co-Principal Investigator (co-PI)**, Department of Architecture, The American University in Cairo, Cairo, Egypt

Scope: A Teaching and Learning Enhancement Grant aimed at integrating virtual environments in the undergraduate curricula of MENG, ARCH, and ECNG curricula for 3 years.

[AUC MENG Team: Khalil El-Khodary; AUC ARCH Team: Sherif Abdelmohsen, Tamer El-Khouly, AUC ECNG Team: Karim Seddik]

February 2019 – October 2019**Measuring and Monitoring the Future ‘Greening’ of the Middle East***[Funded by the Arab-American Frontiers Fellowship, The National Academies of Sciences, Engineering and Medicine: \$3,400]*Role: **Co-Principal Investigator (co-PI)** and visiting researcher, Department of Architecture, the American University in Cairo, Cairo, Egypt

Host Institution: Gaia Energy Research Institute LLC, Washington, DC, USA

Scope: Developing a preliminary time-dependent energy and emissions database for Egypt’s current building stock and estimating the change in greenhouse gas and air pollution emissions with a ‘greening’ of Egypt’s current building stock.

https://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_197263.pdf

Team: Whitney Colella (PI), Sherif Abdelmohsen (co-PI), Christine Wiedinmyer, Katherine Emma Knowland

December 2018 – Present**EVE: Educational Virtual Environment***[Funded by the American University in Cairo: \$450,000]*Role: **Team Member**, Department of Architecture, The American University in Cairo, Cairo, Egypt

Scope: Introducing collaborative virtual environments to the School of Sciences and Engineering undergraduate curriculum (Mechanical Engineering and Architectural Engineering programs as a pilot project for 3 years).

[AUC MENG Team: Lotfi Gaafar, Khalil El-Khodary; AUC ARCH Team: Sherif Abdelmohsen, Tamer El-Khouly]

August 2017 – July 2019

Sponsored Research/Design Studio Program

[Funded by the Dr. Ezz Eldin Fahmy Fund: \$30,850]

Role: **Principal Investigator (PI)**, Department of Architecture, The American University in Cairo, Cairo, Egypt

Scope: Promoting new trends in architecture and exploring boundaries of architectural research, design and innovation through a sponsored research/design studio program.

[AUC Team: Sherif Abdelmohsen (PI), Basil Kamel]

July 2017 – June 2018

Integrating Robotic Material Deposition and Multipoint Forming in the Mass Customization of Double Curved Facades

[Funded by the American University in Cairo: \$23,360]

Role: **Principal Investigator (PI)**, Department of Architecture, American University in Cairo, Egypt

Scope: Developing an optimized design-to-robotic production process for the mass customization of double curved façade panels, through an interdisciplinary collaboration between the Department of Architecture and the Department of Mechanical Engineering at The American University in Cairo.

[AUC Team: Sherif Abdelmohsen (PI), Maki Habib, Basil Kamel]

February 2017 – February 2019

Soft Adaptive Building Skins for Energy Efficient Architecture

[Funded by the Bartlett Family Fund: \$50,000]

Role: **Co-Principal Investigator (co-PI)**, Department of Architecture, American University in Cairo, Egypt

Scope: Exploring material and structural behavior of soft adaptive skins based on the hygroscopic properties of laminated timber.

<https://soa.princeton.edu/content/international-research-collaboration%3A-soft-adaptive-building-skins-energy-efficient-architecture>

[Princeton Team: Sigrid Adriaenssens (PI); AUC Team: Sherif Abdelmohsen (co-PI), Passaint Massoud, Rana Bahaa, Aly Magdy, Tasbeh Mokbel; Roma Tre Team: Stefano Gabriele, Luciano Teresi, Luigi Olivieri]

August 2016 – Present

Responsive Brick Walls

[Not Funded, Conducted at The American University in Cairo]

Role: Research Investigator, Department of Architecture, The American University in Cairo, Cairo, Egypt

Scope: Developing thermally responsive walls through parametric brick configurations.

[AUC Team: Khaled Tarabieh, Sherif Abdelmohsen, Yomna El-Ghazi, Rana Eldabaa, Asmaa Gamal, Mariam Amer]

September 2015 – October 2016

Intelligent Facility Management (iFM)

[Funded by UNii Engineering Consultancy]

Role: **R&D Developer and Team Leader**, UNii Cairo, Cairo, Egypt

Scope: Developing automated systems for space layout planning, and facility, asset and property management using heuristic methods.

[UNii R&D Core Team: Sherif Abdelmohsen, Ayman Assem, Mohammed Ezzeldin, Ahmed Ibrahim]

July 2015 – June 2016

Soft Responsive Architectural Skins: Integrating Parametric Modeling, Physical Computing and Lightweight Structures to design Kinetic Façade Systems

[Funded by the American University in Cairo: \$6600]

Role: **Principal Investigator (PI)**, Department of Architecture, AUC, Cairo, Egypt

Scope: Developing low-cost and energy-saving kinetic façade skins using soft responsive systems.
[AUC Team: Sherif Abdelmohsen (PI), Passaint Massoud, Ahmed Elshafei]

January 2013 – September 2014

Planning and Project Management of E-JUST New Campus

[Funded by the Egyptian Ministry of Higher Education]

Role: **Research Manager** and member of FEDA CoRELAB team, Faculty of Engineering, Ain Shams University, Cairo, Egypt

Scope: Developing interface for automated assessment, planning and management of E-JUST new campus project using BIM/GIS platform.

[FEDA CoRELAB Team: Yasser Mansour (Head), Ashraf Nessim, Sherif Abdelmohsen, Hazem ElDaly, Ayman Assem, Hossam Massoud, Manar Mohammad, Mohammad Mekawy, Fatma Fathy, Aya Elsisy]

June 2007 – September 2010

GSA Project: BIM Enabled Design Guide Automation

[Funded by the United States General Services Administration (GSA)]

Role: **Team Member**, AEC Integration Laboratory, College of Architecture, Georgia Institute of Technology, Atlanta, GA, USA

Scope: Developing cost estimation interface from concept design BIM models for U.S. courthouse buildings using Solibri Model Checker (SMC) & Parametric Cost Engineering System (PACES).

[Georgia Tech Team: Charles Eastman (PI), Yeon-Suk Jeong, Jaemin Lee, Jin-Kook Lee, Paola Sanguinetti, Hugo Sheward, Sherif Abdelmohsen]

SUBMITTED GRANT PROPOSALS

1- Co-PI: Architecture for Climate Change, Environmental Stewardship, and Sustainability (ACCESS) Lab: Improving STEM based climate literacy for undergraduate liberal arts education (March 2022)

Sponsor: US Embassy Cairo Public Affairs Section (\$243,031 – *Not funded*)

2- PI: Achieving Sustainability in Construction using Robotic Methodologies: Minimizing Waste on Construction Sites using Robots (March 2022)

Sponsor: American University in Cairo (AUC Climate Change Call) (\$36,720 – *Not funded*)

3- PI: Robotic Making for All: Innovative Form Finding and Fabrication for Architects using Programming and Robotics (January 2022)

Sponsor: Motorola Solutions Foundation (\$49,956 – *Not funded*)

4- PI: Intelligent Environments: Assistive, Robotically Controlled Environments for Persons with Disabilities (PWDs) (July 2021)

Sponsor: Microsoft AI for Accessibility (\$59,800 – *Not funded*)

5- PI: Expanding the Possibilities of Robotic 3D Metal Printing (WAASM) in Architectural Applications using Non-Planar Deposition (October 2021)

Sponsor: American University in Cairo (SSE Dean Call) (EGP 20,000 – *Not funded*)

6- PI: VIRAL – Virtual Immersion of Responsive Affections Library: Identifying the Rules and Framework to Create an Emotional Affections Library by Immersing Human Users in Virtual Environments through the CAVE and VIVE Headsets (October 2021)

Sponsor: American University in Cairo (SSE Dean Call) (EGP 16,389.31 – *Not funded*)

7- PI: Thermally Responsive Brickwalls: A Low-Cost Approach for Sustainable Urbanization in Hot Arid Climates (January 2020)

Sponsor: USAID-PEER (\$159,750 – *Not funded*)

8- Co-PI: Integrating Smart Materials and Deployable Structures to Develop Mechanisms for Soft Adaptive Building Skins (2019)

Sponsor: Arab-American Frontiers Fellowship, National Academies of Sciences, Engineering and Medicine (\$4,400 – *Not funded*)

9- Team member: 3D-PRISM: 3D Printing of Indigenous Sustainable Materials (2019)

Sponsor: British Council – Newton (\$387,355 – *Not funded*)

10- Co-PI: ‘Developing Inclusive and Creative Economies (DICE)’ Collaboration Grant: application between UK and Egypt (2019)

Sponsor: British Council – DICE (\$107,640 – *Not funded*)

11- Team member: ASDS: Automated Shop Drawing System (2018)

Sponsor: Information Technology Industry Development Agency (ITIDA) (EGP 1,500,000 – *Not funded*)

12- PI: Designing Smart Materials for Soft Adaptive Building Skins using Wood and Hydrogel Composites (2018)

Sponsor: MERCK (\$1,186,500 – *Not funded*)

13- PI: Exploring the Impact of Socio-Cultural Dynamics on Architectural Design Education (2018)

Sponsor: Spencer Foundation (\$50,000 – *Not funded*)

14- PI: Misk Grand Challenges 2018 for Innovators Worldwide (2018)

Sponsor: Misk Foundation, Bill & Melinda Gates Foundation (\$100,000 – *Not funded*)

15- Co-PI: Systematic PROcess for Curricular Development of Interdisciplinary Master Programs on Resource Efficient Cities - ProMaREC (2016)

Sponsor: Erasmus+ (\$500,000 – *Not funded*)

16- Co-PI: Localising the Global: Reframing Everyday Urban Life through Smart Technologies (2016)

Sponsor: Urban Studies Foundation (\$20,000 – *Not funded*)

17- Co-PI: New Challenges in the Building Performance Management of Higher Education Institutions (2016)

Sponsor: Engineering and Physical Sciences Research Council (EPSRC) (\$1,000,000 – *Not funded*)

18- Team member: ASDS: Automated Shop Drawings System (2016)

Sponsor: Information Technology Industry Development Agency (ITIDA) (\$100,000 – *Not funded*)

THESIS SUPERVISION

Masters Students

1- Fatma Fathy, Department of Architecture, Faculty of Engineering, Ain Shams University ([Thesis Defense Date: 01/2016](#))

Thesis: Utilizing Genetic Algorithms and Parametric Design for Efficient Daylighting Performance in Educational Spaces

2- Engy Habib, Department of Architecture, Faculty of Engineering, Ain Shams University ([Thesis Defense Date: 03/2014](#))

Thesis: Towards Biogenesis in Architecture

3- Mohamed Mazen Mohamed, Department of Architecture, Faculty of Engineering, Ain Shams University ([Thesis Defense Date: 09/2013](#))

Thesis: Using BIM Technology in Developing the Building Process

4- Noran El-Abd, Department of Architecture, Faculty of Engineering, Ain Shams University ([Thesis Defense Date: 09/2016](#))

Thesis: Enhancing the Implementation of BIM in the Egyptian AEC Industry

5- Ahmed Khalid, Department of Architecture, Faculty of Engineering, Cairo University ([Thesis Defense Date: 05/2018](#))

Thesis: Enhancing the Façade Performance of Existing Buildings through the Integration between Smart Materials and Parametric Geometries in Architecture

6- Nourhan Bassam, Department of Architecture, Faculty of Engineering, Ain Shams University ([Thesis Defense Date: 06/2018](#))

Thesis: A Framework for Enhancing User Experience in Existing Exhibit Spaces using Evolutionary Algorithms

- 7- Ibrahim Fateen, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 04/2019)
Thesis: Healthcare Facility Design Utilizing Digital Simulation and Evidence Based Method: A Study of Different Topologies of Emergency Departments
- 8- Shereen Alsharkawy, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 09/2019)
Thesis: Using Mobile Augmented Reality Techniques in Architectural Education
- 9- Aly Ibrahim, Faculty of Fine Arts, Alexandria University (Thesis Defense Date: 04/2020)
Thesis: Using Programmable Materials Techniques to Improve the Building Skin Efficiency
- 10- Nada El Dohol, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 05/2020)
Thesis: Biophilic Design as an Approach for Enhancing the Quality of the Views Out and Indoor Daylighting in Intensive Care Units
- 11- Meral Gaber, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 11/2020)
Thesis: Integrating Biomimetic Design Approaches in Architectural Education
- 12- Muhammad Nagy, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 11/2020)
Thesis: Multi-Objective Optimization Methods as a Decision Making Strategy
- 13- Mirna Raafat, Department of Architecture, School of Sciences and Engineering, American University in Cairo (AUC)
Thesis: Workplaces Disrupted: Exploring the Sense of Belonging in Egyptian Office Spaces Post-COVID
- 14- Hager Magdy, Department of Architecture, Faculty of Engineering, Ain Shams University
Thesis: A Swarm Intelligence Model for Enhanced Interactive Architecture

Doctoral Students

- 1- Ramy Bakir, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 04/2016)
Thesis: The Impact of Nanotechnology on the Environmental Design Process in Egypt
- 2- Ahmed Eliraqi, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 04/2017)
Thesis: The Impact of Parametric Modeling on Creative Outcomes in Design Studio
- 3- Nancy Maged Yassa, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 06/2017)
Thesis: Analysis of Experiences of Creative Class Workers in the Innovative Workplace
- 4- Deena El-Mahdy, Department of Architecture, Faculty of Engineering, Cairo University (Thesis Defense Date: 05/2018)
Thesis: Salt as a Sustainable Building Material using Additive Manufacturing Methods
- 5- Rana El-Dabaa, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 07/2020)
Thesis: Programming the Motion of Building Façade Materials by Controlling their Latent Passive Response
- 6- Islam Salem, Department of Architecture, Faculty of Engineering, Ain Shams University
Thesis: Tailoring of Free-Form External Envelopes in Architecture: Design to Production of Mass Customized Double Curved Façade Units Using Multipoint Forming Technology with Robotic Material Deposition

THESIS EXAMINATION

- 1- Haneen Almohammad, Department of Architecture, Faculty of Engineering, Cairo University (Thesis Defense Date: 01/2017)
MSc Thesis: Biomimetic Architectural Applications in Rebuilding Post-Conflict Communities: A New Age of Sustainability

- 2- Hanan Hafiz, Department of Architecture, Faculty of Engineering, Cairo University (Thesis Defense Date: 06/2017)
MSc Thesis: Digital Fabrication Integration in Architectural Education: Student Experience with the Design and Fabrication Process
- 3- Mohamed Elsayed, Department of Architectural Engineering and Environmental Design, College of Engineering and Technology, Arab Academy for Science, Technology and Maritime Transport (Thesis Defense Date: 08/2017)
MSc Thesis: Architectural Space Planning using Interactive Parametric Modeling: Application on the Egyptian National Housing Project
- 4- Ahmed Hassab, Department of Architecture, Faculty of Engineering, Cairo University (Thesis Defense Date: 05/2018)
MSc Thesis: Digital Fabrication Technologies and Techniques in Architecture
- 5- Montasser Hamid, Department of Architectural Engineering and Environmental Design, College of Engineering and Technology, Arab Academy for Science, Technology and Maritime Transport (Thesis Defense Date: 05/2018)
MSc Thesis: Semantics of Building Information Modeling (BIM) for Digital Fabrication: A Knowledge-based Approach
- 6- Ghada Mourad, Department of Architecture, Faculty of Engineering, Cairo University (Comprehensive Exam Date: 01/2019)
PhD Proposal Title: Inclusive Governance: Harnessing Digitally Networked Communities
- 7- Marwa Fahmy, Department of Architecture, Helwan University (Thesis Defense Date: 09/2019)
PhD Thesis: Applying Parametric Urban Design of Dynamic Neighborhoods
- 8- Maha El Gewely, Department of Architecture, German University in Cairo (GUC) (Thesis Defense Date: 08/2020)
PhD Thesis: BIM-based Immersive VR Environment for Construction Detailing Education (BIM – VRConDet)
- 9- Sara Fouad, Department of Architecture, Helwan University (Thesis Defense Date: 10/2021)
PhD Thesis: A Methodology for the Evolution of Modern Islamic Architecture using Parametric Algorithms
- 10- Aya El-Bahrawy, Department of Architecture, Helwan University (Thesis Defense Date: 10/2021)
PhD Thesis: Methodological Application of Mathematics as a Mean of Promoting Efficiency of Architecture Performance
- 11- Yomna El-Taweel, Department of Psychology, The American University in Cairo (AUC) (Thesis Defense Date: 12/2021)
MA Thesis: Older Adults Home-Based Care in Cairo: Asset Mapping Towards Community Development
- 12- Sobhy Mohammed, Department of Architecture, Helwan University (Thesis Defense Date: 02/2022)
PhD Thesis: Generative Design as a Methodology to Develop Creative Thinking Skills for the Architectural Design Process
- 13- Hala Hossam Eldin Wagih, Department of Architectural Engineering and Environmental Design, College of Engineering and Technology, Arab Academy for Science, Technology and Maritime Transport (Thesis Defense Date: 03/2022)
MSc Thesis: Towards a Framework for Tacit Knowledge Communication in Architectural Computational Design
- 14- Mohamed Hesham Madbouly Khalil, Department of Architecture, The American University in Cairo (AUC) (Thesis Defense Date: 06/2022)
MSc Thesis: Bringing Homes Home: Houses for the Architecture of the Home
- 15- Giulia Pellicia, Department of Civil and Environmental Engineering, University of Perugia, Perugia, Italy
MSc Thesis: Hygromorphic Designs: Wood-based Actuators as Passive Moisture Airflow Controllers

PUBLIC TALKS

Generative Inspirations for Architecture in Context, Invited talk at the Architecture and Urban Design (ARUD) Program, Nile University, Cairo, Egypt, May 2022.

Building Information Modeling, Invited talk at the Department of Architecture, Ain Shams University, Egypt, Online talk, December 2021.

Building Information Modeling: between the Artifact-centered and Human-centered, Invited talk at the Arab Academy for Science, Technology and Maritime Transport (Smart Village Campus), Online talk, November 2021.

The Emerging Role of Computational Design in the MENA Region: Opportunities and Challenges, AIA Middle East Webinar Series, July 2021. (<http://www.aiamiddleeast.org/aia-events/2021/7/10/the-emerging-role-of-computational-design-in-the-mena-region-opportunities-and-challenges/>) (<https://www.youtube.com/watch?v=3a03o5INS5c>)

Natural Computing as a Driver for Innovative Architectural Assemblies, Invited public talk at the Faculty of Architecture, Istanbul Technical University (ITU), Istanbul, Turkey (Online talk), May 2021. (<https://mbl.itu.edu.tr/seminar-sherif-abdelmohsen/>)

The Architecture of Natural Computing: Bio-Inspired Algorithms as a Generator of Innovative Architectural Assemblies, ARCH-Verse Talk Series, American University in Cairo, February 2021. (<https://fb.watch/b6zJK9YzhW/>)

Architecture of the Post-Digital: Between Emergence and Autonomy, Nile University (NU), Cairo, Egypt, "You Know Nothing About Architecture", November 2019. (<https://www.facebook.com/events/nile-university/you-know-nothing-about-architecture/397098347594925/>)

Architecture and Programmable Matter, Architectural Systems Engineering Department, Faculty of Engineering, October University for Modern Sciences and Arts (MSA), Cairo, Egypt, May 2019.

Performative and Generative Façade Investigations (Khaled Tarabieh and Sherif Abdelmohsen), ZAK - World of Façades Egypt, "Immersing Local Architectural Influence with Modernism in Façade Designs", Nile Ritz-Carlton, Cairo, Egypt, April 2019. (<https://zakworldoffacades.com/event/zak-world-of-facades-egypt/>)

Architecture and the Power of the Invisible Digital, "Visions in the Future of Egyptian Architecture" Plenary Session, ARCHCAIRO 8th International Conference (Building the Future Now: Rights to Better Living, Architecture and Contexts), Department of Architecture, Faculty of Engineering, Cairo University, Cairo, Egypt, April 2019. (<http://archcairo8.cufe.edu.eg/files/ArchCAIRO8-PROGRAM.pdf>)

Programmable Skins, "Hygroscares: Innovative Shape-Shifting Façades" International Workshop, University Roma Tre, Rome, Italy, January 2019.

Programmable Skins: A Hygromorphic Approach for Low-Cost Adaptive Building Façades, Keynote speech, *Next Generation Buildings and Infrastructure* panel session, 6th Arab-American Frontiers of Science, Engineering, and Medicine Symposium, Kuwait City, Kuwait, November 2018. (<https://www.nationalacademies.org/event/11-04-2018/sixth-arab-american-frontiers-of-science-engineering-and-medicine-symposium>)

BIMMUNITY Smart Building Management Solution, Open Mic talk, GITEX Future Stars Dubai, Dubai, UAE, October 2018.

Computational Design: Perpetual or Ephemeral? Invited public talk at the Faculty of Architecture, Istanbul Technical University (ITU), Istanbul, Turkey, April 2018. (<https://darch.itu.edu.tr/207538/>)

TimberMorphs: Designing with Shape Shifting Surfaces, in CEE 546: Form Finding of Structural Surfaces, Department of Civil and Environmental Engineering, Princeton University, Princeton, NJ, USA, April 2017.

Programmable(s) Matter: Designing with Low-cost Shape Changing Materials, in *MakerFaire Cairo* (MFC '17), Smart Village, Cairo, Egypt, April 2017 (<http://makerfairecairo.com/speakers/sherif-abdelmohsen/>)

Computational Design: Perpetual or Ephemeral? in *Beyond Form: Emerging Trends in Computational Design*, public talk at the Supreme Council of Culture (SCC), Architectural Committee, Cairo, Egypt, December 2016.

GreenBIM Thinking: Strategies for Sustainable Design using Building Information Modeling, in *BIM and Environmental Simulation Mini Symposium*, Lincoln School of Architecture International Summer School, University of Lincoln, Brayford Pool, Lincoln, UK, July 2012.

BIM Expertise and Education (Paola Sanguinetti and Sherif Abdelmohsen), Panel Session (BIM and Beginning Education), in *We Have Never Been Pre-Disciplinary* (24th National Conference on the Beginning Design Student), College of Architecture, Georgia Institute of Technology, Atlanta, GA, USA, March 2008

PANEL SESSIONS

Parametricism, Panel Session, The Design Show (TDS), Okolplan Booth, Cairo International Convention and Exhibition Center, Cairo, Egypt, June 2022.

Panelist

Computational Design through the Eyes of Arab Expats, DigitalFUTURES (in Arabic) Online Session, December 2021. (<https://www.youtube.com/watch?v=PqkdQFaLVk0>)

Session Moderator

SIGraDi 2021 International Conference Parallel Session, Ubiquitous Conference, Georgia Tech, Atlanta, GA, USA.

Parallel Session Moderator

Smart City Management using BIM and GIS, Panel session (Session 10: AI and BIM), *Eastman Symposium*, Georgia Tech Digital Building Lab (DBL), Atlanta, GA, USA (virtual session), May 2021. (<https://dbi.gatech.edu/eastman-symposium/sessions/ai-and-bim>)

Speaker and member of panel session

New Spaces for a New Era, Panel session, *Techne Summit Alexandria 2020*, Bibliotheca Alexandrina, Alexandria, Egypt, November 2020.

(<https://technesummitalexandria2020.sched.com/event/flmc/new-spaces-for-a-new-era>)

Speaker and member of panel session

Technology in Facility Management, Panel session, *Techne Summit Alexandria 2020*, Bibliotheca Alexandrina, Alexandria, Egypt, November 2020.

(<https://technesummitalexandria2020.sched.com/event/fOZa/technology-in-facility-management>)

Speaker and member of panel session

Educational Virtual Environment (EVE): Virtual Reality as a Tool for Experiential Learning, community roundtable session (Bringing Life to Learning: Experiential Learning at AUC), *Center for Learning and Teaching (CLT) Symposium*, American University in Cairo, March 2020.

Presenter

Architecture in the Age of the 4th Industrial Revolution, Roundtable session, 37th eCAADe/23rd SIGraDi International Conference, Teatro do Campo Alegre, Faculty of Architecture, University of Porto, Porto, Portugal, September 2019.

Member of roundtable session

ARC|FAB, Panel session, *San3aHub, Fablab Cairo*, Egypt, June 2018.

Session Moderator

ARC|FAB: Revisiting Architecture in the Age of Digital Fabrication, Panel session, *MakerFaire Cairo* (MFC '18), Smart Village, Cairo, Egypt, March 2018.

Session Moderator

Building Dynamics: Exploring Architecture of Change, Public Talk & Panel Discussion by Prof. Branko Kolarevic, hosted by the American University in Cairo (AUC), February 2018.

Session Moderator

Role of ICT in Urban Planning and Urban Service Delivery, Special UNDP session, Egypt Urban Forum (EUF), Cairo, Egypt, June 2015.

Session Moderator

eCAADe 2015 International Conference Parallel Session, Vienna, Austria.

Parallel Session Moderator

SIGraDi 2013 International Conference Parallel Session, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile.

Parallel Session Moderator

EXHIBITIONS

BIMMUNITY Smart Building Management Solution, in *2018 Annual Digital Building Lab Symposium*, Tech Showcase and Mixer, The Historic Academy of Medicine, Georgia Institute of Technology, Atlanta, GA, USA, October 2018.

TimberMorphs: Low-cost Soft Adaptive Skins, in *MakerFaire Cairo (MFC '17)*, Smart Village, Cairo, Egypt, April 2017.

Creased Casts, in *Synthetic 2015 Exhibition* on Robotics and Additive Manufacturing, Le Mans, France, November 2015.

Responsive and Kinetic Architecture, in *Synthetic 2015 Exhibition* on Robotics and Additive Manufacturing, Le Mans, France, November 2015.

Flora Electronica Installation

(Xmedia Group at Georgia Tech: Ali Mazalek and graduate students)

Remote Collaborators at NYU - Ken Perlin and graduate students)

Presented at *Listening Machines 2007*, Eye Drum, Atlanta, GA, USA, April 2007

TangiCAD: Tangible Interface for Manipulating Architectural 3D Models

Open House, Computational Design Laboratory (CoDeLAB), School of Architecture, Carnegie Mellon University, Pittsburgh, PA, USA, March 2006

POSTER PRESENTATIONS

The Generalized Model of Expertise: Defining Strategies in Building Information Modeling (Paola Sanguinetti and Sherif Abdelmohsen)

- The Georgia Tech Research and Innovation Conference (gtRIC 2010), Georgia Institute of Technology, Atlanta, GA, February 8, 2010.

- The *Third International Conference on Design Computing and Cognition (DCC'08)*, Georgia Institute of Technology, Atlanta, GA, June 23-25, 2008.

Energy Puppet: Providing Ambient Awareness for Home Energy Consumption (Sherif Abdelmohsen and Ellen Yi-Luen Do)

- Sustainability Poster Session, Institute for Sustainable Technology and Development, Atlanta, GA, USA, April 18, 2007.

- Graduate Student Symposium (GSS2007), Georgia Institute of Technology, Atlanta, GA, USA, March 9, 2007.

- Graphics, Visualization and Usability (GVU) Spring Research Showcase, TSRB, Georgia Institute of Technology, Atlanta, GA, USA, March 1, 2007.

ORGANIZATION OF WORKSHOPS, CONFERENCES AND COMPETITIONS

Robotic Non-Planar 3D Metal Printing (Metal vs Clay)

Co-organizer and Instructor on behalf of the Department of Architecture, American University in Cairo (AUC), interdisciplinary online workshop co-organized with the Mechanical Engineering Department, AUC, DigitalFUTURES Workshops, June 20 – July 2, 2022.

(<https://digitalfutures.international/workshop/robotic-non-planar-3d-printing-metal-vs-clay/>)

10th International Conference of the Arab Society for Computation in Architecture, Art and Design (ASCAAD 2022) (2022)

Co-Organizer, as President of the Arab Society for Computation in Architecture, Art and Design (ASCAAD), hosted by the Faculty of Architecture – Design and Built Environment, Beirut Arab University (BAU), Debbieh, Lebanon (Hybrid Conference), October 12-14, 2022

(<https://www.ascaad.org/conference/2022/index.htm>)

ASCAAD Logo Design Competition (2022)

Organizer, as President of the Arab Society for Computation in Architecture, Art and Design (ASCAAD), February-May 2022. (<http://www.ascaad.org/logocompetition/main.htm>)

2nd World CAAD PhD Workshop (2021)

Co-Organizer on behalf of the Arab Society for Computer Aided Architectural Design (ASCAAD), 3-day online workshop co-organized by CAAD sister organizations (ACADIA, ASCAAD, CAADRIA, eCAADe, SIGraDi), Faculty of Architecture and Urbanism, Federal University of Juiz de Fora (UFJF), Brazil, December 6-8, 2021 (<https://www.worldcaadphdworkshop2021.sigradi.org/>)

Robotic 3D Metal Printing (WAAM)

Co-organizer and Instructor on behalf of the Department of Architecture, American University in Cairo (AUC), interdisciplinary online workshop co-organized with the Mechanical Engineering Department, AUC, DigitalFUTURES (InclusiveFUTURES Workshops), June 21 – July 3, 2021.

(<https://www.youtube.com/watch?v=DviZOHoziQo&t=2s>)

CRESMI: Climate Resilience of Micro, Small and Medium Industrial Workplaces in Egypt: A future-fit approach to retrofit

Facilitator on behalf of the Department of Architecture, American University in Cairo (AUC), 3-day online workshop co-organized with UCL Institute for Environmental Design and Engineering, June 1-3, 2021 (<http://cresmi.org/>)

9th International Conference of the Arab Society for Computer Aided Architectural Design (ASCAAD 2021) (2021)

Organizer and Host, as President of the Arab Society for Computer Aided Architectural Design (ASCAAD), hosted by the Department of Architecture, American University in Cairo (AUC), Cairo, Egypt (Virtual Conference), March 2-4, 2021. (<https://www.ascaad.org/conference/2021/index.htm>)

1st World CAAD PhD Workshop (2020)

Co-Organizer and moderator on behalf of the Arab Society for Computer Aided Architectural Design (ASCAAD), 3-day online workshop co-organized by CAAD sister organizations (ACADIA, ASCAAD, CAADRIA, eCAADe, SIGraDi), Istanbul Technical University (ITU), Istanbul, Turkey, December 7-9, 2020 (<https://worldcadphdworkshops.itu.edu.tr/>)

Hygroscapes: Innovative Shape Shifting Facades (2019)

Co-Organizer and Instructor, 1-week workshop on scalable programmable soft adaptive building skins using hygroscopic properties of wood, Department of Architecture, University Roma Tre, Rome, Italy

AUC-HSA Summer School (Summer 2017)

Co-Organizer, 1-week summer school on “Robotic Transformations in Architecture” in partnership with Prof. Christian Bauriedel, Augsburg School of Applied Sciences (Hochschule Augsburg), Germany

(<https://www.hs-augsburg.de/Architektur-und-Bauwesen/Projekte/StudentInnen-aus-Kairo-starten-Robotikprojekt.html>)

Hygroscapes: Innovative Shape Shifting Facades (2017)

Co-Organizer and Instructor, 1-week workshop on soft adaptive building skins using hygroscopic properties of laminated timber, Department of Architecture, American University in Cairo (AUC), Cairo, Egypt (<https://auctoday.com/2018/01/30/building-skins-tearing-boundaries/>)

Shape Shifting Surfaces (2017)

Co-Organizer and Instructor, 2-week workshop on soft adaptive building skins using hygroscopic properties of laminated timber, Department of Civil and Environmental Engineering, Princeton University, Princeton, NJ, USA.

(<https://formfindinglab.wordpress.com/2017/06/14/water-wood-and-temperature-hygroscopy-at-its-best/>)

AUC-HSA Summer School (Summer 2015/ Summer 2016)

Organizer, 2-week summer school on "Parametric Design and Innovative Building Facades" in partnership with the Augsburg School of Applied Sciences (Hochschule Augsburg), Technical University of Munich (TUM), University of Stuttgart, and Technical University of Berlin, Germany

SANDWORKS Workshop (2015)

Host/organizer, 5-day workshop at AUC in partnership with Ecole Nationale Supérieure d'Architecture Paris-Malaquais/Faculty of Fine Arts Alexandria

Ain Shams University Neighborhood Initiative Workshop – Phase I (2013)

Co-organizer, 1-day workshop in partnership with Megawra, hosted by Department of Architecture, Ain Shams University, funded by IIE

XOTech EMotion Workshop (2013)

Co-organizer and main tutor, performative skin and digital fabrication workshop, in partnership with MAGLAB Syria, hosted by Department of Architecture, Ain Shams University, Feb 2-9, 2013

(<https://xotechworkshop.wordpress.com>)

CFB Inter-University Workshop (2012)

Co-organizer and moderator, 1-day workshop in partnership with Megawra, Cairo From Below, hosted by Department of Architecture, Ain Shams University, funded by IIE-Ford foundation

KRAFT 2012 (Kinematic and Responsive Architecture and Fabrication Technology) workshop and competition

Workshop organizer, in partnership with FabLab Egypt and Megawra

Union of Mediterranean Architects (UMAR) Workshop, Cairo, Egypt (1999)

Workshop Participation: Replanning master plan & villas of Dreamland Project, 6th October City

Design Computing Workshop, Georgia Institute of Technology, Atlanta, GA, USA (2006)

Workshop Participation

AWARDS AND RECOGNITION**Certificate of Appreciation, American University in Cairo (AUC)**

In recognition of outstanding dedication and participation in the American University in Cairo's (AUC) Centennial Celebrations (2019/2020), February 2020

Nomination, InclusiveFUTURES 2021 Award

Shortlisted by DigitalFUTURES.World for the InclusiveFUTURES 2021 Award. Nominees for this category included prominent figures (Marina Tabassum, Rasim Badran, Neri Oxman, Kunle Adeyemi, Farshid Moussavi), July 2021

Honors Diploma, Knowledge Application and Notion for Society (KANS) Scientific Competition, Mustafa Science and Technology Foundation (MSTF), Tehran, Iran

Recipient of Honors Diploma (1 of 5 recipients out of 20 awarded recipients, total of 1045 participants from 15 countries), November 2018 (<https://kans.mustafaprize.org/page/en/news#41>)

Certificate of Appreciation, ECG Academy, Cairo, Egypt

For effective role in University to Work (UTW) Program, (Class 2013/2014), November 2014

Young Active Researcher Award, Faculty of Engineering, Ain Shams University, Cairo, Egypt

For outstanding research activity and effort (AY 2012/2013), June 2013

Certificate of Appreciation and Attendance, University of Lincoln, UK

For attending and actively participating in the University of Lincoln Summer School in Architecture: Conservation and Sustainability, July 2012

Faculty Award of Merit for Best Doctoral Presentation

Recipient of award, School of Architecture, Georgia Institute of Technology, April 2012

Member Invitation, Golden Key International Honor Society

Invited Member from Georgia Institute of Technology, December 2009

ARCC/ KING Student Medal for Excellence in Architectural + Environmental Design Research

(<http://www.arccweb.org/kingawd.htm>)

Georgia Institute of Technology Recipient for AY 2008/2009, April 2009

Egyptian Cultural and Educational Bureau (ECEB) Program Scholarship

Recipient of GM scholarship to pursue PhD degree at Georgia Tech, May 2006

Certificate of Achievement, Department of Architecture, Faculty of Engineering, Ain Shams University

April 2005

The Binational Fulbright Commission in Egypt (BFCE) Egyptian Student Program Grant

Recipient of non-degree grant to conduct research at Carnegie Mellon University

February 2005

Ain Shams University Annual Science Fair Honorary Award

Recipient of AY 2003/2004 distinguished graduate students award, 2004

MEDIA PRESENCE

Arch Talk: On Parametric Design Curriculum and Managing a Digital Fabrication Lab Online

Online interview with Sara Kolata (Arch Talk: Tank#24), November 2020

(<https://www.youtube.com/watch?v=nmMyGFYN278&t=48s>)

Business Monthly, Journal of the American Chamber of Commerce in Egypt

Featured interview in "3D Printing Establishes Foothold in Egyptian Manufacturing", Business Monthly, p. 14-18, July 2019 (http://www.amcham-egypt.org/BM_Issues/July2019Issue.pdf/)

Archipreneur Magazine

Featured interview and article titled "Beyond BIM: Architects Create a Wider Building Management Tool", in Archipreneur Magazine, Report 02, p. 78 – 90, March 2019

(https://archipreneur.com/report/?utm_source=blog&utm_medium=link&utm_campaign=launch02)

Archipreneur Magazine

Online article titled "The Future of Managing the Building Community", Dec 2018

(<https://archipreneur.com/bimmunity-future-building-community/>)

Georgia Tech Digital Building Lab Channel

Online video featuring participation in the DBL 2018 symposium showcase, Nov 2018

(<https://vimeo.com/channels/gtdbl/305639874>)

GITEX Future Stars Dubai

Online link to participation in GITEX Future Stars Dubai, Oct 2018

(<https://www.gitexfuturestars.com/exhibitor-products/bimmunity>)

AUC Today

Online article titled "Building Skins, Tearing Boundaries", Fall 2017

(<https://aucoday.com/2018/01/30/building-skins-tearing-boundaries/>)

AUC News

Online article titled "Designing with a Purpose: Architecture Students Propose Acoustic Solutions for AUC Library", Dec 2017

(<https://www.aucegypt.edu/news/stories/designing-purpose-architecture-students-propose-acoustic-solutions-auc-library>)

Hochschule Augsburg

Online Article at the Faculty of Architecture and Construction, the University of Applied Sciences at Augsburg (Hochschule Augsburg), Aug 2017

(<https://www.hs-augsburg.de/Architektur-und-Bauwesen/StudentInnen-aus-Kairo-starten-Robotikprojekt.html>)

Princeton University School of Architecture

Online article describing the research collaboration between AUC and Princeton through the Bartlett Family Fund grant, Jan 2017

(<https://soa.princeton.edu/content/international-research-collaboration%3A-soft-adaptive-building-skins-energy-efficient-architecture>)

CNN International

Interview at CNN Atlanta Headquarters, "Egypt in Crisis", Jan 2011

(<http://edition.cnn.com/TRANSCRIPTS/1101/29/se.02.html>)

(<https://www.youtube.com/watch?reload=9&v=GcfcvIidjkU>)

PROFESSIONAL WORK

New Salheya University Campus (2019 – 2021)

Description: New university campus (111,342 m² plot area, including faculty of dentistry, faculty of pharmaceuticals, and faculty of physiotherapy, faculty of science, faculty of engineering, faculty of business)

Client: Private owner

Location: Salheya, Sharkeya Governorate, Egypt

Scope: Design development and construction documents for new university campus buildings

Design Team: UDAAR Studio

Qiba Square Development (2019)

Description: Tourist attraction and entertainment square

Client: Madinah Region Development Authority (MDA)

Location: Qiba Square, Al-Madinah Al-Munawwarah, Saudi Arabia

Scope: Concept and schematic design proposal for square development

Design Team: UDAAR Studio

CAPSTONE Cliff Residence (2018 – 2019)

Description: Residential compound (81,840 m² plot area)

Client: Paragon Developments

Location: Sheikh Zayed City, Cairo, Egypt

Scope: Masterplan, concept design and schematic design of residential units and landscape design

Design Team: UDAAR Studio

"Architecture of Al-Masjid Al-Nabawi" Book Project (2018 – 2019)

Description: Documentation of the architecture of Al-Masjid Al-Nabawi and its evolution since the era of the Prophet (622 AD) till Ottoman extension (1860 AD)

Client: Al-Madinah Al-Munawwarah Research and Studies Center

Location: Al-Madinah Al-Munawwarah, Saudi Arabia

Scope: 3D Modeling and graphical illustrations and documentation of the architecture of Al-Masjid Al-Nabawi

Design Team: UDAAR Studio

'City of the Sun' Gates & Streetscape (2018 - 2019)

Description: Design of 'City of the Sun' compound gates, including landscape and street furniture of main street between gates (total of 1,500m)

Client: ARABIA Holding

Location: 6th of October City, Giza, Egypt

Scope: Concept/schematic design, design development of gates and landscape

Design Team: UDAAR Studio

ENTRADA Commercial Strip (2018)

Description: Commercial strip building (10,000 m² footprint, BUA 31,000 m²)

Client: SOROUH Developments

Location: Cairo Administrative Capital, Egypt

Scope: Proposal for architectural design concept

Design Team: UDAAR Studio

Campeiro Sheikh Zayed (2018)

Description: Residential compound, clubhouse and horse stables (40,125 m² plot area, total footprint 6,018 m², total BUA 20,827 m²)

Client: Private Owner

Location: Sheikh Zayed City, Cairo

Scope: Masterplan, concept and schematic design proposal for residential units

Design Team: UDAAR Studio

Breeze Compound (2017 - 2018)

Description: Residential compound (302,400 m² plot area)

Client: SOROUH Developments

Location: Cairo Administrative Capital, Egypt

Scope: Masterplan, landscape and architectural design proposal

Design Team: UDAAR Studio

King Marriott University Campus (2017 - 2018)

Description: New university campus (42,503 m² plot area, including Faculty of Dentistry, faculty of pharmaceuticals, and faculty of physiotherapy)

Client: King Marriott University (Dr. Youssef Darwish)

Location: King Marriott, Burj El-Arab, off Cairo-Alexandria Desert Road, Egypt

Scope: Masterplan and schematic design of new university campus buildings including 3 faculties and administration building

Design Team: UDAAR Studio

'City of the Sun' Sales Center and Headquarters (2017 - 2018)

Description: Sales Center and Headquarters office building (3,000 m² total footprint area + 6-story panoramic observatory tower)

Client: ARABIA Holding

Location: 6th of October City, Giza, Egypt

Scope: Concept design proposal

Design Team: UDAAR Studio

'City of the Sun' Residential Apartments (2017)

Description: 26 residential apartment plots (average footprint 773 m²)

Client: ARABIA Holding

Location: 6th of October City, Giza, Egypt

Scope: Concept design proposal of residential apartments (5 prototypes)

Design Team: Consortium (UDAAR Studio, Beyond Vision, Centroid, Spaces Designs, Design & Build Studio)

Government Institutions Pension Fund (GIPF) Offices (2017)

Description: Office building for Namibian government (3,174 m² plot area)

Client: Government of Namibia (joint-venture with local office)

Location: Ondangwa, Oshana Region, Namibia
Scope: Concept design proposal – limited competition (2nd place winner)
Design Team: UDAAR Studio

Chamber of Commerce Office Building (2017)

Description: Office building and Headquarters (14,384 m² total BUA)
Client: Saudi Chamber of Commerce
Location: Jizan, Saudi Arabia
Scope: Façade redesign and landscape design proposal
Design Team: UDAAR Studio

Private Residence (2017)

Description: Private villa with swimming pool (2,205 m² plot area)
Client: Private Owner
Location: Beirut, Lebanon
Scope: Concept design for villa
Design Team: UDAAR Studio

MyHome Furniture Showroom (2017)

Description: Furniture showroom and gallery (720 m² plot area)
Client: Private Owner
Location: Suez, Egypt
Scope: Interior design and façade concept and schematic proposal
Design Team: UDAAR Studio

Oasis of Culture (2013 – 2014)

Description: Culture and Arts Center
Client: Egyptian Ministry of Culture
Location: 6th of October City, Egypt
Scope: Theater façade and detailing, outdoor landscape features detailing
Design Team: Morad Abdelkader Consultancy Office

E-JUST New Campus Project Management (2012 – 2013)

Description: Planning and project management of Egypt-Japan University for Science and Technology (E-JUST) New Campus (356,583 m² plot area)
Client: Egyptian Ministry of Higher Education
Location: Borg El-Arab, Egypt
Scope: Design review and project management of masterplan by Arata Isozaki
Design Team: CoReLAB (Project Management Unit), Department of Architecture, Faculty of Engineering, Ain Shams University

New Connection Office Building (2012 – 2013)

Description: 6-story office building (4317 m² plot area)
Client: El-Raowda for Real Estate Development
Location: Fifth settlement, Cairo, Egypt
Scope: BIM consultancy and management (Architectural, structural, MEP)
Design Team: YMCA Consultants / KRAFT Studio

Interior Design, Cairo International Bookfair (2004 – 2005)

Description: Cairo International Bookfair interior design proposal
Client: General Authority for Investment & Free Zones, Ministry of Investment
Location: Nasr City Fairground, Cairo, Egypt
Scope: Cairo International Bookfair interior design proposal, Nasr City Fairground design development
Design Team: YMCA Consultants

Egyptian and Arab World Pavilion, Frankfurter Buchmesse (2004)

Description: Frankfurt Bookfair (Arab World Guest of Honor)
Client: Frankfurter Buchmesse
Location: Frankfurt, Germany

Scope: Interior design of main hall (Forum), exterior tent (Agora), and interior halls (Vias), Egyptian pavilion, and Arab pavilion

Design Team: YMCA Consultants

Horus Residential and Commercial Complex (2002)

Description: Residential and mixed-use complex

Client: Private owner

Location: Giza, Egypt

Scope: Concept and schematic design and design development

Design Team: Morad Abdelkader Consultancy Office

San El-Hagar Museum (2001 – 2003)

Description: Museum for antiquities in Sharkeya region

Client: Egyptian Ministry of Culture

Location: Sharkeya Governorate, Egypt

Scope: Concept and schematic design and design development for museum

Design Team: Morad Abdelkader Consultancy Office

Fardos Gardens (2000 – 2003)

Description: Residential compound

Client: Public Security Sector, Egyptian Ministry of Interior

Location: El-Zohor Grouping, El-Wahat Road, Egypt

Scope: Masterplan, schematic design and design development for a group of private villas (Villa El-Refaie, Sabry, Saleh, Hisham, Shehata and Yassin)

Design Team: Morad Abdelkader Consultancy Office

DESIGN AND RESEARCH COMPETITION ENTRIES

Programmable Zero-Energy Interactive Façades, 2020 [Shortlisted & Funded (30,000 EGP): SMART FACADES startup with NilePreneurs, Egypt]

Organizer: Technology for the Masses (TFM), IMPAQT Research and Development Competition and Workshop, co-funded by the Erasmus+ Programme of the European Union

Location: Bibliotheca Alexandrina, Alexandria, Egypt

Design Team: Rana El-Dabaa, Islam Salem, Aly Magdy, Sherif Abdelmohsen

Thermally Responsive Brick Walls for Residential Building Façade Envelopes using Parametric and Robotic Simulation, 2020 [Shortlisted]

Organizer: Technology for the Masses (TFM), IMPAQT Research and Development Competition and Workshop, co-funded by the Erasmus+ Programme of the European Union

Location: Bibliotheca Alexandrina, Alexandria, Egypt

Design Team: Sherif Abdelmohsen, Khaled Tarabieh, Rana El-Dabaa, Asmaa Hassan, Islam Salem, Yomna El-Ghazi

School2Share (S2S): A Computational Approach for the Efficient Management of Shared School Facilities in Developing Countries using BIM and GIS, 2020 [Shortlisted]

Organizer: Technology for the Masses (TFM), IMPAQT Research and Development Competition and Workshop, co-funded by the Erasmus+ Programme of the European Union

Location: Bibliotheca Alexandrina, Alexandria, Egypt

Design Team: Sherif Abdelmohsen, Ayman Assem, Mohamed Ezzeldin

The Quest of Light: Hadith Narrators Museum Architectural Ideas Competition, 2019

Organizer: Madinah Region Development Authority (MDA)

Location: Madinah, Saudi Arabia

Design Team: UDAAR Studio

Istiqama Mosque: Dubai Creek Harbour Iconic Mosque Competition, 2018

Organizer: EMAAR Development

Location: Dubai Creek Harbour, Dubai, United Arab Emirates

Design Team: UDAAR Studio

KnowledgeFields: Dar Al-Uloum Public Library Redesign Competition, 2018

Organizer: Abdulrahman Al Sudairy Cultural Centre (AACC), KSA

Location: Sakaka, Al Jouf Region, Saudi Arabia

Design Team: UDAAR Studio

Folium Trilaterum: Art Prison International Architecture Competition, 2018

Organizer: Young Architects Competitions and the Municipality of Favignana

Location: Favignana, Italy

Design Team: UDAAR Studio

Flocks in Flux: Dubai Feather Skyscraper, 2017 [Honorary Mention]

Organizer: Bee Breeders (SkyHive Skyscraper Challenge)

Location: Dubai, United Arab Emirates

Design Team: UDAAR Studio

Hong Kong Pixel Homes International Architecture Competition, 2017

Organizer: Bee Breeders Architecture Competition Organizers

Location: Hong Kong

Design Team: UDAAR Studio

Science City International Architectural Competition, 2016

Organizer: Bibliotheca Alexandrina, under the auspices of the Union of International Architects (UIA)

Location: 6th of October City, Cairo, Egypt

Design Team: UNii Engineering Consultancy

PENDO MOTUS +: eVolo Skyscraper Competition, 2016

Organizer: eVolo Magazine

Design Team: Khaled Tarabieh, Sherif Abdelmohsen, Passaint Massoud, Islam Mashaly, Ahmed Elshafei

Next7 Architectural Competition, 2015

Organizer: Arch2O

Design Team: KRAFT | Studio

Winter Stations Design Competition, 2014

Organizer: Architect Magazine

Location: Toronto, Canada

Design Team: KRAFT | Studio

Parametric Mafroka: Design + Industry Competition, 2013 [Winning Entry]

Organizer: Egyptian Furniture Export Council

Location: FURNEX Exhibition, Cairo, Egypt

Design Team: KRAFT | Studio

Building for Bouwkunde Ideas Competition, 2008

Organizer: University of Delft (Design of the Faculty of Architecture Campus)

Location, Delft, Netherlands

Design Team: Tamer El-Khouly, Sherif Abdelmohsen

Residential Commercial Complex, 2001

Location: Al-Madina, Saudi Arabia

Design Team: Hany Abdullah, Sherif Abdelmohsen

Office Building Complex, 2001

Location: 6th of October City, Cairo, Egypt

Design Team: Mohammad Gabr, Tamer El-Khouly, Waleed Hosny, Sherif Abdelmohsen

Pharmaceuticals' Syndicate Club, 2001

Organizer: Egyptian Pharmaceuticals Syndicate

Location: Giza, Egypt

Design Team: Mohammad Gabr, Tamer El-Khouly, Waleed Hosny, Sherif Abdelmohsen

Graphics Poster [Honorary Prize]

Organizer: CurrentCE company

Designer: Sherif Abdelmohsen

UNIVERSITY SERVICE

Service to the Department of Architecture

- Associate Chair, Department of Architecture, The American University in Cairo (since July 2022)
- Director, Robotic Fabrication Laboratory, Department of Architecture, The American University in Cairo (since 2022)
- Co-Director, Architecture Graduate Program, The American University in Cairo (2020-2022)
- Chair, Grants and Research Committee, Department of Architecture, The American University in Cairo (since AY 2020/2021)
- Member, Student Affairs Committee, Department of Architecture, The American University in Cairo (since AY 2020/2021)
- Member, Graduate Committee, Department of Architecture, The American University in Cairo (since AY 2020/2021)
- Member, Program Review Committee, Department of Architecture, The American University in Cairo (since AY 2020/2021)
- Chair, Academic Affairs Committee, Department of Architecture, The American University in Cairo (2018 – 2022)
- Co-Chair, Accreditation Committee, Department of Architecture, The American University in Cairo (since AY 2016/2017)
- Co-Chair, Strategic Planning and Academic Assessment Committee, Department of Architecture, The American University in Cairo (since AY 2016/2017)
- Director, Design Computing and Fabrication Laboratory, Department of Architecture, The American University in Cairo (since AY 2016/2017)
- Member, Safety and Security Committee, Department of Architecture, The American University in Cairo (AY 2016/2017)
- Member, Studios and Labs Logistics Committee, Department of Architecture, The American University in Cairo (AY 2016/2017)

Service to the School of Sciences and Engineering

- Member, Steering Committee, Educational Virtual Environment (EVE), The American University in Cairo (since 2021)
- Member, Academic Affairs Committee, School of Sciences and Engineering, American University in Cairo (2018 – 2022)
- Member, Strategic Planning Committee, School of Sciences and Engineering (SSE), The American University in Cairo (AY 2016/2017)
- Member, Staff Committee, School of Sciences and Engineering (SSE), The American University in Cairo (AY 2016/2017)

Service to the University

- Member and Department of Architecture Representative, University Senate, American University in Cairo (since AY 2018/2019)
- Member and Secretary, Senate Curriculum Committee, American University in Cairo (2018 – 2022)
- Chair, Senate Curriculum Committee, American University in Cairo (since AY 2022/2023)
- Member, Senate Executive Committee, American University in Cairo (since AY 2022/2023)

PROFESSIONAL AND ACADEMIC AFFILIATIONS

- President, Arab Society for Computer Aided Architectural Design (ASCAAD) [2020-Present]
- Associate Member, American Institute of Architects (AIA)
- Member, International Experts for Research Enrichment and Knowledge Exchange (IEREK)
- Member, Steering Committee, Bachelor of Design Computing Program, International Credit Hours Engineering Program, Faculty of Engineering, Ain Shams University (since 2021)
- Member, Golden Key International Honor Society
- Member, Digital Building Laboratory, Georgia Tech
- Member, Student Construction Association (SCA), Georgia Tech
- Member, Board of Directors, Arab Society for Computer Aided Architectural Design (ASCAAD) (2012-2015)
- Member, Cultural Affairs Committee, Faculty of Engineering, Ain Shams University
- Member, International Accord Committee, Faculty of Engineering, Ain Shams University
- Alumnus, The Binational Fulbright Commission in Egypt (BFCE)
- Alumnus, CoDeLab, Carnegie Mellon University
- Member, Egyptian Engineering Syndicate

SOCIAL ACTIVITIES

- Member, Scientific Committee, Eco-House Competition, Department of Architecture, Ain Shams University (February 2014)
- Design Computing Representative for PhD newsletter, School of Architecture, Georgia Institute of Technology (Fall 2008)
- Participation in organizing Ain Shams architectural competition "FUTURE ARCHITECTURE 2100" (January 2005 – June 2005)
- Participation in Rotterdam Biennale (May 2003 – July 2003) titled: "Mobility: Room with a View"
- Participation in Preparing Architectural Symposia (Feb. 2000 – June 2001) [Architecture & Art, Architecture & Technology, Architecture & Environment, Airports] symposia, Supreme Council of Culture, Cairo

ATTENDED CONFERENCES

- 1- The XIX World Congress of the Union of International Architects (UIA '96), Barcelona, Spain, 1996.
- 2- The XX World Congress of the Union of International Architects (UIA '99), Beijing, China, 1999.
- 3- The 1st Annual Conference on Architectural Heritage, Library of Alexandria, Alexandria, Egypt, March 2002.
- 4- The XXI World Congress of the Union of International Architects (UIA '02), Berlin, Germany, 2002.
- 5- "New York: City in Motion" Conference, New York Institute of Technology, New York, NY, USA, March 2006.
- 6- The 12th Annual Conference of the Association of Computer Aided Architectural Design Research in Asia (CAADRIA 2007), Southeast University, Nanjing, China, April 2007.
- 7- 2nd International Association of Societies of Design Research (IASDR 2007) International Conference, Hong Kong Polytechnic University, Hong Kong, Nov 2007.
- 8- "We Have Never Been Pre-Disciplinary", the 24th National Conference on the Beginning Design Student, Georgia Institute of Technology, Atlanta, GA, USA, March 2008.
- 9- The 3rd International Conference on Design Computing and Cognition (DCC 08), Georgia Institute of Technology, Atlanta, GA, USA, June 2008.
- 10- The 7th International Workshop on Social Intelligence Design (SID 2008), Universidad de Puerto Rico, San Juan, Puerto Rico, Dec 2008.
- 11- The 13th International Conference of Computer Aided Architectural Design Research Futures (CAADFutures 2009), Universite de Montreal, Montreal, Quebec, Canada, June 2009.
- 12- Digital Building Laboratory Symposium, Manufacturing Research Center, Georgia Institute of Technology, Atlanta, GA, USA, June 2010.

- 13-Digital Building Laboratory Symposium, Klaus Advanced Computing Building, Georgia Institute of Technology, Atlanta, GA, USA, May 2011.
- 14-The 6th International Conference of the Arab Society for Computer Aided Architectural Design (ASCAAD 2012), College of Architectural Engineering and Design, The Kingdom University, Manama, Bahrain, February 2012.
- 15-XVII Congreso de la Sociedad Iberoamericana de Grafica Digital (SIGRADI 2013), Universidad Tecnica Federico Santa Maria, Valparaiso, Chile, November 2013.
- 16-The 32nd Education and Research in Computer Aided Architectural Design in Europe International Conference (eCAADe 2014), Northumbria University, Newcastle, UK, September 2014.
- 17-The 16th International Conference of Computer Aided Architectural Design Futures (CAADFutures 2015), Sao Paulo, Brazil, July 2015.
- 18-The 33rd Education and Research in Computer Aided Architectural Design in Europe International Conference (eCAADe 2015), TU Wien, Vienna, Austria, September 2015.
- 19-The 7th International Conference on Design Computing and Cognition (DCC 16), Northwestern University, Evanston, Illinois, USA, June 2016.
- 20-The American Institute of Architects (AIA) Middle East Annual Conference, The American University in Cairo (AUC), Tahrir Campus, Cairo, Egypt, November 2016.
- 21-The 2nd European Conference on Materials, Mechatronics and Manufacturing (ECMMM 2018), Krakow, Poland.
- 22-The 36th Education and Research in Computer Aided Architectural Design in Europe International Conference (eCAADe 2018), Lodz, Poland, September 2018.
- 23-GITEX Future Stars Startup Conference and Expo 2018, Dubai World Trade Center, Dubai, United Arab Emirates, October 2018.
- 24-Digital Building Lab Annual Symposium, The Historic Academy of Medicine, Georgia Institute of Technology, Atlanta, GA, USA, October 2018.
- 25-6th Arab-American Frontiers of Science, Engineering, and Medicine Symposium, Kuwait City, Kuwait, November 2018.
- 26-ARCHCAIRO 8th International Conference, Building the Future Now: Rights to Better Living, Architecture and Contexts, Department of Architecture, Faculty of Engineering, Cairo University, Egypt, April 2019.
- 27-ZAK - World of Façades Egypt, "Immersing Local Architectural Influence with Modernism in Façade Designs", Cairo, Egypt, April 2019.
- 28-The 18th International Conference of Computer Aided Architectural Design Futures (CAADFutures 2019), Daejeon, South Korea, June 2019.
- 29-37th eCAADe Conference / XVIII SIGraDi Conference, Faculty of Architecture, University of Porto, Porto, Portugal, September 2019.
- 30-25th International Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA 2020), Chulalongkorn University, Bangkok, Thailand (Virtual Conference), August 2020.
- 31-The 38th eCAADe Conference, TU Berlin, Berlin, Germany (Virtual Conference), September 2020.
- 32-The 3rd International Conference on Parallelism in Architecture, Engineering and Computing Techniques (PACT 2020), University of East London, London, UK (Virtual Conference), October 2020.
- 33-The 9th International Conference on Design Computing and Cognition (DCC '20), Georgia Institute of Technology, Atlanta, GA, USA (Virtual Conference), December 2020.
- 34-The 9th International Conference of the Arab Society of Computer Aided Architectural Design (ASCAAD), American University in Cairo (AUC), Cairo, Egypt (Virtual Conference), March 2021 (Conference Host and Organizer).
- 35-XXV Congreso de la Sociedad Iberoamericana de Grafica Digital (SIGraDi 2021), Ubiquitous Conference, Georgia Tech, Atlanta, GA, November 2021.