

SHERIF M ABDELMOHSEN**PhD (Georgia Tech), MSc, BSc (Honors)**ASSOCIATE PROFESSOR OF DIGITAL MEDIA & DESIGN COMPUTING IN ARCHITECTURE
Department of Architecture, The American University in Cairo (AUC), Cairo, Egypt
CO-FOUNDER, UDAAREmail: sherifmorad@aucegypt.eduURL: <https://aucegypt.academia.edu/SHERIFMORADABDELMOHSEN><http://www.aucegypt.edu/fac/Profiles/Pages/SherifAbdelmohsen.aspx>**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, School of Sciences and Engineering (SSE), The American University in Cairo (AUC), Egypt

EMPLOYMENT**April 2017 - Present****UDAAR for Engineering Consultancy and Technology Solutions**

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, 3DStudioMAX, Adobe Photoshop

Generative design and digital fabrication

Rhino, Grasshopper

Building Information Modeling

Autodesk Revit, Digital Project, Solibri Model Checker

Programming

Python, Processing, Java

TEACHING EXPERIENCE

AS ASSOCIATE PROFESSOR
 (2016 – 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 (Digital Design)

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 (Digital Design)

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

PROFESSIONAL WORK

KRAFT | Studio

- “Winter Stations” Competition Entry, Toronto, Canada
- New Connection Office Building (NCOB), Fifth Settlement, Cairo, Egypt (BIM Consultancy and Management)
- Parametric “Mafroka” installation, Cairo, Egypt (Winning Design + Industry competition entry)
- Parametric “Diamond” installation, Cairo, Egypt
- Next7 Competition Entry, Arch2O, Cairo, Egypt

FEDA CoReLAB (Project Management Unit), Faculty of Engineering, Ain Shams University

- Egypt-Japan University for Science and Technology (E-JUST) New Campus Project, Borg El-Arab, Egypt (Project Management)

Cube Consultants

- Hotel in AlMadina AlMunawarah, Saudi Arabia

YMCA Consultants

- Frankfurt Bookfair – Arab World Guest of Honor, Frankfurt, Germany
Forum Hall, Exterior Tent, Theatre, and Interior Halls Design
- Egyptian Pavilion in Frankfurt Bookfair, Frankfurt, Germany
- Arab Pavilion in Frankfurt Bookfair, Frankfurt, Germany
- Cairo International Bookfair Interior Design Proposal, Cairo, Egypt
- Nasr City Fairground Design Development, Cairo, Egypt

Consultant Office (Maged Fahmy, Emad Aziz)

- Baghdadiyah Residential Complex, Saudi Arabia
- A number of private villas, Saudi Arabia

Consultant Office (Prof. Morad AbdelKader)

- San El-Hagar Museum, Sharkeya Governorate, Egypt
- Development of North Gamaleya Project, Cairo, Egypt
- Touristic Resort, Hurghada, Egypt
- Horus Residential and Commercial Complex, Giza, Egypt
- Fardos Gardens, El-Zohor Grouping, El-Wahat Road, Egypt
- Villa El-Refaie, Sabry, Saleh, Hisham, Shehata and Yassin, Cairo, Egypt

Center for Developing Historic Cairo, Citadel

- Development of North Gamaleya sector, Cairo, Egypt

COMPETITIONS**Hong Kong Pixel Homes International Competition**

Design Team: UDAAR Studio, Cairo, Egypt

Science City Competition, 6th of October City, Cairo, Egypt, 2016

Design Team: UNii Engineering Consultancy, Cairo Office

eVolo Skyscraper Competition, 2016

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

Winter Stations Competition, 2014

Design Team: KRAFT | Studio (Founder: Sherif Abdelmohsen)

Next7 | Arch2O Competition, 2014

Design Team: KRAFT | Studio (Founder: Sherif Abdelmohsen)

Design + Industry Competition, Egyptian Furniture Export Council, Cairo, Egypt, 2013 (Winning Entry, FURNEX Exhibition)

Design Team: KRAFT | Studio (Founder: Sherif Abdelmohsen)

Building for Bouwkunde Ideas Competition (Design of the Faculty of Architecture Campus, University of Delft, Netherlands), 2008

Design Team: Tamer El-Khouly, Sherif Abdelmohsen

Residential Commercial Complex, Al-Madina, Saudi Arabia, 2001

Design Team: Hany Abdullah, Sherif Abdelmohsen

Office Building Complex, 6th of October City, Egypt, 2001

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

Pharmaceuticals' Syndicate Club, Giza, Egypt, 2001

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

Graphics Poster for CurrentCE company (Honorary Prize)

Designer: Sherif Abdelmohsen

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
- Sketch understanding, problem solving, and analyzing design activity
- Qualitative methods in design research

PUBLICATIONS

2017

Abdelmohsen, S. and Tarabishy, S. (2017), Optimized Design to Robotic Production: Integrating Multipoint Forming and Free Form Material Deposition in the Mass Customization of Double Curved Facades, accepted for publication, International Journal of Parallel, Emergent and Distributed Systems (IJPEDS).

Abdelmohsen, S., Massoud, P., Tarabishy, S. and Hassab, A. (2017), Rule-based versus Intuition-based Generative Design: An Inquiry into the Digital Chain Concept in Undergraduate Architectural Education, accepted for publication, International Journal of Parallel, Emergent and Distributed Systems (IJPEDS).

Tarabieh, K. Abdelmohsen, S., Eldabaa, R., Gamal, A., El-Ghazi, Y. and Amer, M. (2017), Parametric Investigation of Three Types of Brick Bonds for Thermal Performance in a Hot Arid Climate, accepted for publication, *Passive Low Energy Architecture International Conference (PLEA 2017)*, Edinburgh, UK.

El-Zanfaly, D. and 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.

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: 10.1007/978-3-319-44989-0_25.

2016

Mansour, Y., Iscandar, M., Abdelmohsen, S. and Yassa, N. (2016), Workplace Creativity between Theory and Practice, *Middle East Journal of Applied Sciences*, Vol. 6, No. 4, 878-883, ISSN 2077-4613.

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)*.

Abdelmohsen, S. and 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, S. Abdelmohsen, A. Barracco, G. Retsin and M. Amer (eds.), proceedings of the *International Conference of Parallelism in Architecture, Environment and Computing (PACT)*, pp. 109-116.

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, S. Abdelmohsen, A. Barracco, G. Retsin and M. Amer (eds.): proceedings of the *International Conference of Parallelism in Architecture, Environment and Computing (PACT)*, pp. 269-281.

Abdelmohsen, S., Massoud, P. and Elshafei, A. (2016), Using Tensegrity and Folding to Generate Soft Responsive Architectural Skins, proceedings of the *34th eCAADe International Conference*, Oulu, Finland, Vol. 1, pp. 529-536.

Bakir, R. and 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.

Mansour, Y., Abdelmohsen, S., Mostafa, A., and 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.

2015

Fathy, F., Mansour, Y., Sabry, H., Abdelmohsen, S. and Wagdy, A. (2015), Cellular Automata for Efficient Daylighting Performance: Optimized Façade Treatment, in proceedings *BS2015: 14th Conference of the International Building Performance Simulation Association (IBPSA)*, Hyderabad, India, pp. 2705-2711.

Abdelmohsen, S. and Massoud, P. (2015), Making Sense of those Batteries and Wires: Parametric Modeling between Emergence and Autonomy, in G. Celani, D.M. Sperling and J.M.S. Franco (Eds.): *The Next City: proceedings of the 16th CAAD Futures 2015 International Conference*, © Biblioteca Central Cesar Lattes 2015, Sao Paulo, Brazil, pp. 279-296.

Abdelmohsen, S. and Massoud, P. (2015), Integrating Responsive and Kinetic Systems in the Design Studio: A Pedagogical Framework, in B. Martens, G. Wurzer, T. Grasl, W.E. Lorenz, and R. Schaffranek, (Eds.): *Real Time: proceedings of the 33rd eCAADe Conference*, Volume 2, Vienna University of Technology, Vienna, Austria, pp. 71-80.

2014

Abdelmohsen, S. (2014), An Inquiry into Designing in Context using Generative Systems, *International Journal of Architectural Computing (IJAC)*, Vol. 12, No. 4, 477-494.

Abdelmohsen, S. (2014), A BIM-based Framework for Assessing Architectural Competition Entries, in E.M. Thompson (ed.), *Fusion*, proceedings of the 32nd *Education and Research in Computer Aided Architectural Design in Europe International Conference (eCAADe 2014)*, Department of Architecture and Built Environment, Newcastle upon Tyne, UK, Volume 2, pp. 473-483.

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, No. 26, pp. 20-28.

2013

Abdelmohsen, S. (2013), Reconfiguring Architectural Space using Generative Design and Digital Fabrication: A Project Based Course, in proceedings of XVII *Congreso de la Sociedad Iberoamericana de Grafica Digital (SIGRADI 2013)*, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile, pp. 391-395.

Hosny, S., Elkholy, G., Abdelmohsen, S. and 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.

2012

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>.

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.

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>.

Abdelmohsen, S. (2012), Genres of Communication Interfaces in BIM-Enabled Architectural Practice, in proceedings of 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, pp. 81-91.

2011

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.

2009

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.

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.

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: 10.1002/ad.851.

2008

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.

Abdelmohsen, S. (2008), Building Information Modeling and Architectural Practice: On the Verge of a New Culture, in proceedings of the 1st International Conference on Critical Digital, Harvard University Graduate School of Design, Cambridge, MA, USA, pp. 85-89.

Abdelmohsen, S., Eastman, C. et al. (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.

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.

2007

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.

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.

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.

2004

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.

Abdelmohsen, S. (2004), Towards a Conceptual Framework for Implementing Intelligent Mixed Reality in Architectural Education, MSc Thesis, Ain Shams University, Cairo, Egypt.

REVIEWS

Scientific Reviews and Activities

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 and Editor, *Middle East Architects Association (MEAA) Journal*, Cairo, Egypt, since November 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.

Session Moderator, UNDP Session on the Role of ICT in Urban Planning and Urban Service Delivery, Egypt Urban Forum (EUF), Cairo, Egypt.

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

Reviewer and session moderator, *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 and session moderator, *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 and Jury

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

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

External reviewer, ARCH 221/1511, 251/2551, 453/3554, 454/4555, 456/4557, 490/4980 design studios, 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).

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**July 2017 – Present****Sponsored Research/Design Studio Program***[Funded by the Dr. Ezz Eldin Fahmy Fund: EGP 560,000]*

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

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

[Sherif Abdelmohsen (PI), Basil Kamel]

July 2017 – Present**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, The American University in Cairo, Cairo, Egypt

Goal: 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.

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

February 2017 – Present**Soft Adaptive Building Skins for Energy Efficient Architecture***[Funded by the Bartlett Family Fund: \$25,000]*

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

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

[Sigrid Adriaenssens (PI), Sherif Abdelmohsen, Stefano Gabriele, Luciano Teresi, Passaint Massoud, Rana Bahaa, Luigi Olivieri, Aly Magdy, Tasbeh Mokbel]

August 2016 – Present**Responsive Brick Walls***[Conducted at The American University in Cairo]*

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

Goal: 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

Goal: 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, The American University in Cairo, Cairo, Egypt

Goal: 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

Goal: 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: Member of Georgia Tech team, College of Architecture, Georgia Institute of Technology, Atlanta, GA, USA

Goal: Developing interface for cost estimation from preliminary concept design BIM models for U.S. courthouse buildings using Solibri Model Checker (SMC) and 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]

THESIS SUPERVISION**Masters Students**

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

Thesis Title: 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 Title: Towards Biogenesis in Architecture

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

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

5- Nourhan Bassam, Department of Architecture, Faculty of Engineering, Ain Shams University

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

- 6- Ayman Adel, Department of Architecture, Faculty of Engineering, Ain Shams University
Thesis Title: Impact of Interior Wall Configurations on Daylighting Performance using Shape Grammars
- 7- Yasser Salama, Department of Architecture, Faculty of Engineering, Ain Shams University
Thesis Title: Influence of Evidence-based Design on Hospitals' Operational Efficiency: Case Study – Space Design of the Intensive Care Unit
- 8- Shereen Alsharkawy, Department of Architecture, Faculty of Engineering, Ain Shams University
Thesis Title: Towards Using Augmented Reality Techniques in Architectural Education
- 9- Nada El Dohol, Department of Architecture, Faculty of Engineering, Ain Shams University
Thesis Title: Biophilic Design as an Approach for Enhancing the Quality of the Views Out and Indoor Daylighting in Intensive Care Units

Doctoral Students

- 1- Ramy Bakir, Department of Architecture, Faculty of Engineering, Ain Shams University (Thesis Defense Date: 04/2016)
Thesis Title: 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 Title: 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 Title: Analysis of Experiences of Creative Class Workers in the Innovative Workplace

THESIS EXAMINATION

Masters Students

- 1- Haneen Almohammad, Department of Architecture, Faculty of Engineering, Cairo University (Thesis Defense Date: 01/2017)
Thesis Title: 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)
Thesis Title: 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)
Thesis Title: Architectural Space Planning using Interactive Parametric Modeling: Application on the Egyptian National Housing Project

PUBLIC TALKS

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

EXHIBITIONS

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.

WORKSHOPS

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

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

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.

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

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/RECOGNITION**Certificate of Appreciation, ECG Academy, Cairo, Egypt**

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

- Member, Strategic Planning Committee, School of Sciences and Engineering (SSE), The American University in Cairo
- Member, Staff Committee, School of Sciences and Engineering (SSE), The American University in Cairo
- Director, Digital Fabrication Laboratory, Department of Architecture, The American University in Cairo
- Coordinator, UNESCO/UIA Revalidation Committee, Department of Architecture, The American University in Cairo
- Coordinator, Strategic Planning Committee, Department of Architecture, The American University in Cairo
- Member, Safety and Security Committee, Department of Architecture, The American University in Cairo
- Member, Studios and Labs Logistics Committee, Department of Architecture, The American University in Cairo

AFFILIATIONS

- Member, International Experts for Research Enrichment and Knowledge Exchange (IEREK)
- 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)
- 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

- The XIX World Congress of the Union of International Architects (UIA '96), Barcelona, Spain, 1996.
- The XX World Congress of the Union of International Architects (UIA '99), Beijing, China, 1999.
- The 1st Annual Conference on Architectural Heritage, Library of Alexandria, Alexandria, Egypt, March 2002.
- The XXI World Congress of the Union of International Architects (UIA '02), Berlin, Germany, 2002.
- "New York: City in Motion" Conference, New York Institute of Technology, New York, NY, USA, March 2006.
- The 12th Annual Conference of the Association of Computer Aided Architectural Design Research in Asia (CAADRIA 2007), Southeast University, Nanjing, China, April 2007.
- The 2nd International Association of Societies of Design Research (IASDR 2007) International Conference, Hong Kong Polytechnic University, Hong Kong, November 2007.
- "We Have Never Been Pre-Disciplinary", the 24th National Conference on the Beginning Design Student, Georgia Institute of Technology, Atlanta, GA, USA, March 2008.
- The 3rd International Conference on Design Computing and Cognition (DCC 08), Georgia Institute of Technology, Atlanta, GA, USA, June 2008.
- The 7th International Workshop on Social Intelligence Design (SID 2008), School of Architecture, Universidad de Puerto Rico, San Juan, Puerto Rico, December 2008.
- The 13th International Conference of Computer Aided Architectural Design Research Futures (CAADFutures 2009), Universite de Montreal, Montreal, Quebec, Canada, June 2009.
- Digital Building Laboratory Symposium, Manufacturing Research Center, Georgia Institute of Technology, Atlanta, GA, USA, June 2010.
- Digital Building Laboratory Symposium, Klaus Advanced Computing Building, Georgia Institute of Technology, Atlanta, GA, USA, May 2011.
- 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.
- XVII Congreso de la Sociedad Iberoamericana de Grafica Digital (SIGRADI 2013), Universidad Tecnica Federico Santa Maria, Valparaiso, Chile, November 2013.
- The 32nd Education and Research in Computer Aided Architectural Design in Europe International Conference (eCAADe 2014), Northumbria University, Newcastle, UK, September 2014.
- The 16th International Conference of Computer Aided Architectural Design Research Futures (CAADFutures 2015), Sao Paulo, Brazil, July 2015.
- The 33rd Education and Research in Computer Aided Architectural Design in Europe International Conference (eCAADe 2015), TU Wien, Vienna, Austria, September 2015.
- The 7th International Conference on Design Computing and Cognition (DCC 16), Northwestern University, Evanston, Illinois, USA, June 2016.
- The American Institute of Architects (AIA) Middle East Annual Conference, The American University in Cairo (AUC), Tahrir Campus, Cairo, Egypt, November 2016.