

MOSTAFA ALANI, Ph.D

Curriculum Vita

The Robert R. Taylor School of Architecture and Construction Science
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E D U C A T I O N

- Ph.D. Planning, Design, and the Built Environment | College of Architecture, Arts, & Humanities, Clemson University | Clemson, South Carolina, 2018 (Fully Funded Scholarship)
Dissertation title: "Computational Investigation of the Morphological Design Dimensions of Historic Hexagonal-Based Islamic Geometric Patterns"
Chair: Michael Kleiss, Ph.D.; Associate Professor of Architecture, Department of Architecture
- M.Sc. Building Technology | School of Housing, Building, and Planning, University of Science | Penang, Malaysia, 2009
- B.Sc. Architecture Engineering | Department of Architecture, University of Technology | Baghdad, Iraq, 2006

Certificate Programs:

- 2015 Digital Ecology Certificate | College of Architecture, Arts, & Humanities, Clemson University | Clemson, South Carolina

T E A C H I N G _ E X P E R I E N C E

Tuskegee University, Visiting Assistant Professor

- Architecture Design Studio (ARCH.0302) | Spring 2019
- Computer Applications (ARCH.0345) | Spring 2019
- Special Problems (ARCH.0363) | Spring 2019
- Architecture Studio (ARCH.0401) | Fall 2018
- Digital Manufacturing Processes (ARCH.0363) | Fall 2018

Kennesaw State University, Part-Time Assistant Professor

- Architecture Studio IV (ARCH.2004) | Spring 2018
- Design Communication (ARCH.1241-6, 14) | Spring 2018
- Focus Design Studio, Dynamic Environments (ARCH.5015) | Fall 2017

Clemson University, Graduate Teaching Assistant

- Design Science (ARCH.8790) | Spring 2016
- Creative Inquiry | Spring 2016

PUBLICATIONS

Peer-reviewed Journals:

- 2018 ***“Algorithmic investigation of the actual and virtual design space of historic hexagonal based Islamic patterns.”*** International Journal of Architectural Computing. Mostafa Alani.

Peer-reviewed Conference Proceedings:

- 2018 ***“Heritage at Stake: Computational Design Processes for Rescuing Mosul’s Architectural Identity.”*** Technopolitics. XXII International Conference of the Iberoamerican Society of Digital Graphics (SIGraDi). Mostafa Alani (Forthcoming).
- 2018 ***“The Reconfigurable Wall System: Designing an Interactive, Responsive Structure Reactive to Socio-Environmental Conditions.”*** 20th Human-computer Interaction (HCI) Conference, 2018. Mostafa Alani, Arash Soleimani, Anthony Bah, Adam Leicht, Salman Sajwani, Evan Murray.
- 2018 ***“Chronological Examination of the Morphology of Hexagonal Based Islamic Geometric Patterns.”*** Virtual + Actual: Process and Product of Design. Design Communication Association 2018. Mostafa Alani, Michael Kleiss and Joseph Choma
- 2017 ***“From Known to New: Morphological Analysis as an Academic Approach for Structural Innovation.”*** 6th Structural Engineering World Congress. Cancun, Mexico, November 2017. Kleiss, Michael; Ross, Brandon; Alani, Mostafa.
- 2016 ***“Morphological Code of Historical Geometric Patterns: The Digital Age of Islamic Architecture.”*** Parametricism and Materialism: The International Conference of the Arab Society for Computer-Aided Architectural Design (ASCAAD). Mostafa Alani.
- 2015 ***“A Parametric Description for Metamorphosis of Islamic Geometric Patterns.”*** Emerging Experience in Past, Present, and Future of Digital Architecture: The Association for Computer-Aided Architectural Design Research in Asia (CAADRIA) conference. Mostafa Alani, Carlos Barrios.
- 2015 ***“Parametric analysis in Islamic geometric designs.”*** The next city - New technologies and the future of the built environment. 16th International Conference CAAD Futures 2015. Carlos Barrios. Mostafa Alani
- 2015 ***“A Parametric Metamorphosis of Islamic Geometric Patterns: The Extraction of New from Traditional.”*** Future of Architectural Research: Architectural Research Centers Consortium (ARCC) conference. Mostafa Alani, Carlos Barrios.

Accepted Abstracts:

- 2018 ***“reTESSELLATE: Modular Dynamic Surfaces Reactive To Socio-Environmental Conditions.”*** 21st International Conference On Human-Computer Interaction. Mostafa Alani, Arash Soleimani

Posters:

- 2017 ***“Fabricating the Metamorphosis of Islamic Pattern,”*** Architecture of Complexity: design, systems, society and environment: Architectural Research Centers Consortium (ARCC) conference. Mostafa Alani, Brian Leounis, Carlos Barrios.
- 2017 ***“Investigating the virtual-actual design space of historical Islamic Patterns,”*** Tasmeem Doha 2017. Mostafa Alani, Carlos Barrios
- 2016 ***“Computational Exploration of Islamic Geometric Patterns,”*** Seventh International Conference on Design Computing and Cognition (DCC16). Mostafa Alani.

P R E S E N T A T I O N S

- 2018 *“Chronological Examination of the Morphology of Hexagonal Based Islamic Geometric Patterns”* | Design Communication Association conference | Cornell University | Ithaca, NY
- 2018 *“Architecture & Robotics”* | Symposium for Part-time, Adjunct, and Contingent Educators (SPACE) | Kennesaw State University | Atlanta, GA
- 2017 *“Dynamic Environments”* | Focus studio presentation | Architecture Department, Kennesaw State University | Marietta, GA
- 2015 *“Morphing the Islamic Geometric Patterns”* | Graduate Student Forum | Design and Computation Group, Architecture Department, MIT | Boston, MA
- 2015 *“A Parametric Metamorphosis of Islamic Geometric Patterns: The Extraction of New from Traditional”* | Architectural Research Centers Consortium conference | Chicago, IL | Mostafa Alani, Carlos Barrios.

P R O F E S S I O N A L _ E X P E R I E N C E

- Supervisor of Projects Division | Engineering Department, Al-Iraqia University | Baghdad, Iraq — 2012-2013
Providing professional and technical guidance to divisions in the engineering department and supervising projects’ design, including the Al-Iraqia University campus in Al-Tarmia designed by Mimar Group, UAE.
- Architect | Engineering Department, Al-Iraqia University | Baghdad, Iraq — 2011-2012
Design and supervision of projects on university campuses, including the Presidential Building in Al-Iraqia University, Sab’a Abkar campus and President’s Office, Al-Iraqia University, Al-A’damia campus.
- Architect | Netaq, LLC | Baghdad, Iraq — 2011
Renovation of Rasheed Theater; responsibilities included details and shop drawings.
- Architect | Shams Altam’er Construction Company | Baghdad, Iraq — 2010-2011
Projects included: Exemplary School in Baghdad, Women’s Cultural Center, post office buildings, and residential (private/low-rise).
- Architect | Global Construction Solutions | Iraq — 2009-2010
Providing technical guidance regarding standards and practices for architectural designs, building components, component installations, building construction, and landscaping.

A W A R D S

- 2017 Rifat Chadirji Prize: Mosul’s Housing competition, Tamayouz Excellence Award (honorable mentions).
- 2016 Graduate Research and Discovery Symposium, College of Architecture, Arts, and Humanities, Clemson University (1st place award).
- 2016 Research Assistant, College of Architecture, Arts, and Humanities, Clemson, SC (Manufacturing the second generation of a robotic kit for children).
- 2015 Graduate Student Research Program Award, College of Architecture, Arts, and Humanities, Clemson University.
- 2013 The Higher committee for education development in Iraq (HCED), Office of the Iraqi Prime Minister (Scholarship).
- 2011 Affordable housing competition, Ministry of Housing and Construction, Iraq. Mostafa Alani, Mohamad Ahmad (4th prize winner).
- 2010 Baghdad Entrance competition, Baghdad Governorate (1st prize winner).

E X H I B I T I O N S

- 2018 Tech Showcase, Digital Building Symposium | Digital Building Laboratory, Georgia Tech | Atlanta, GA
- 2017 Focus Studio Exhibition | Architecture Department, Kennesaw State University | Marietta, GA

S E R V I C E & P R O F E S S I O N A L _ O U T R E A C H

Peer Review:

Peer reviewer, Journal of Cultural Heritage — 2016

Services:

Faculty Senate | The Robert R. Taylor School of Architecture and Construction Science, Tuskegee University
— Fall 2018-present

Special Development Initiative | Process to build an Institutional Recognition Wall, Tuskegee University
— Fall 2018

Lunching the AIA Middle East Chapter in Baghdad (Event organizer) | AIA Middle East Chapter — Fall 2018

Jury, Vertical Charrette Competition | Department of Architecture, Kennesaw State University — Fall 2017

Selection committee, TEDx Clemson University 2016 Organizing Committee | Clemson University — 2016

Graduate Student Senate | Planning, Design, and the Built Environment Senator, Clemson University
— 2015-2016

L I C E N S I N G & C R E D E N T I A L S

LEED Green Associate, US Green Building Council, Cert. ID 11092083-GREEN-ASSOCIATE — 2016-present

Licensed Architect, Iraq, Registration # 121350 — 2016-present

P R O F E S S I O N A L _ A S S O C I A T I O N S & M E M B E R S H I P

Member of the American Institute of Architects, AIA Intl. Assoc., Member # 38601686 — 2016-present

Member of the Iraqi Board of Engineers — 2006-present

C O M P E T E N C I E S

3D Modeling & Photo Realistic Visualization:

Rhinoceros, 3Ds Max, SketchUp, Vray, Maxwell, Lumion

Drafting & BIM:

AutoCAD and Revit

Postproduction & Digital Media:

Photoshop, InDesign, Final Cut Pro, Motion

Scripting & Computational Design:

Processing Programming Language, Grasshopper

Digital Manufacturing:

3D Printing, CNC, and Laser Cutter