

Name: Alaa Salman Algargoosh
E-mail: alaas@umich.edu.

Education

- 2015- Ongoing **Ph.D. in Architecture** (Building Technology- GPA: 3.95/4), University of Michigan, United States.
- 2009- 2013 **MS in Architecture** (Sustainable Architecture- GPA: 4.78/5) , University of Dammam, Dammam, Saudi Arabia.
- 2002- 2007 **BS in Interior Architecture** (GPA: 4.82/5), King Faisal University, Dammam, Saudi Arabia.

Teaching Positions

- 2016 **Teaching Assistant in Architecture**, University of Michigan.
Assisted in the following courses: *Environmental Systems (2016,2017,2018)*, *Integrative systems (2016,2018)*
- 2013 - 2014 **Lecturer in Interior Design**, University of Dammam
Assisted in the following courses: *Design studios (2013)*, *Senior Thesis Research (2013)* and *Environmental Control Systems (2013)*.
- 2010 – 2013 **Teaching Assistant in Interior Design**, University of Dammam
Assisted in the following courses: *Design studios (2010,2011,2012)*, *Working Details (2010,2011)*, *Building Construction and Environmental Control Systems (2012)*.

Professional Experience

2008 **Project Engineer** at Saudi Aramco: was the first woman to work as a project engineer, led the project team, and promoted for proposing innovative ideas that promote sustainability through construction.

2007 **Architect** at Zuhair Fayeze Partnership Consultants: Worked on a major project that includes the housing of King Abdullah University of Science and Technology.

Conference papers

Algargoosh, Alaa (2017). Creating A Psychologically Supportive Environment Through Aural Architecture. *24th International Congress on Sound and Vibration (ICSV24)*. London.

Algargoosh, Alaa (2016). Review of Aspects That Shape the Aural Experience in Worship Spaces. *The 22nd International Congress on Acoustics (ICA 2016)*. Buenos Aires. (Peer-reviewed)

Alghamdi, Sarah A.; Algargoosh, Alaa; Alshaibani, Khalid (2015). Energy Conservation by Retrofitting: An Overview of Office Buildings in Saudi Arabia. *International Conference on IT, Architecture and Mechanical Engineering (ICITAME'2015)*. Dubai.

Algargoosh, Alaa; Hossam Eldien, Hany; El Wakeel, Hala (2013). Improving the indoor sound quality by using cymatic shapes. *The 21st International Congress on Acoustics (ICA 2013)*. Montréal. (Peer-reviewed)

Algargoosh, Alaa. (2011). Increasing the Effectiveness of the Architectural Design Process by Simulation. *The Second Scientific Conference for Graduate Students*. Jeddah. (Peer-reviewed)

Patents

Algargoosh, Alaa; Hossam Eldien, Hany; El Wakeel, Hala (2015). Saudi Patent Office Patent No. Publication No. 4439.

Algargoosh, Alaa; Hossam Eldien, Hany; El Wakeel, Hala (2015). The United States Patent and Trademark Office. Patent No. US-2014-0339015 A1.

Other Publications

Algargoosh, A., Hossameldin, H., & El-wakeel, H. (2015). USA Patent publication No. US-2014-0339015-A1.

Algargoosh, A. (2011). The memory of the Senses and Architectural Ethics. *Albenaa Magazine*, 50-54.

Guest/Invited Lectures and Talks

April 2019, Title: **Aural Architecture: Auditory experiences created by spatial attributes**. Course: (PAT 102) Acoustics and Psychoacoustics. Performing Arts & Technology department, University of Michigan.

Feb 2019, Title: **Sound Affects: The emotional impact of Aural Architecture**. Event: Research Remix: Art, Technology, & User Experience. Duderstadt Center, University of Michigan.

Feb 2019, Title: **VR for advancing research vs. research for advancing VR**. Event: Media & Studio Arts Symposium. Duderstadt Center, University of Michigan.

April 2018, **Beyond Journaling: A Reflection Toolbox for Community Engagement**. Engaged Pedagogy Initiative Symposium. LSA's Community-Engaged Academic Learning and Rackham's Program in Public Scholarship, University of Michigan.

Oct 2018, **Architectural Acoustics Simulation**. Course: (ARCH 605) Environmental Design Simulation. Taubman College of Architecture, University of Michigan.

Oct 2018, Nov 2017, Nov 2016 and March 2016- Title: **Research and Invention**. Course: (ARCH 506) Research for Design Practices. Taubman College of Architecture, University of Michigan.

Media Coverage

04/14/2019- **Okaz Newspaper**, mentioned as a panelist in the Summit of Saudi Student in the U.S. titled "Transformation Journey through Studying Abroad" at Indiana State University.

04/14/2019- **Alwatan Newspaper**, mentioned as a panelist in the Summit of Saudi Student in the U.S. titled "Transformation Journey through Studying Abroad" at Indiana State University.

02/05/2017- **Hia magazine**, interview.

03/09/2016- **"Bssmat Mbt3th" book**, which contains the influential international achievements of the Saudi students around the world included a page about my achievements. The book was launched by the Ambassador (Prince Abdullah Bin Turki) and the Saudi Cultural Attaché in America (Dr. Mohammed Al-Issa) in Washington on September 3rd, 2016.

12/01/2016- **Alyaum Newspaper**, an article about my invention, which was granted a Saudi and a US patent.

05/09/2015- **Makkah Newspaper**, mentioned as an inventor in an article about the outstanding achievements of the Saudi students studying in the US.

14/02/2014- **Subscribe Show**, interviewed on MBC channel in the show that represents the achievements of the innovative Saudi young people.

03/07/2013- **Asharq Alawsat Newspaper**, an article about my contribution to the Art Science Innovation workshop in Paris.

08/03/2012- **Alyaum Newspaper**, selected to represent the successful Saudi working women in the International Working Women's Day.

Professional Organizations

2013 -Membership of Saudi Inventors.

2012 - Membership of Acoustical Society of America.

2006 -Membership of the Saudi Council of Engineering.

Scholarships, Awards, Honors and Grants

- 2019- **Concert Hall Research Institute**, CHRG 2019 Summer Institute Scholarship.
- 2019- **Michigan-Mellon Project on the Egalitarian Metropolis Grant**, Mapping the Egalitarian Metropolis: Spaces of Hope.
- 2019- **University of Michigan**, Rackham Graduate school, Barbour Scholarship, one of the oldest and most prestigious awards for female leaders in Science and other fields.
- 2019- **University of Michigan**, nominated by Taubman College of Architecture and Urban Planning for Rackham Outstanding Graduate Student Instructor Award.
- 2019- **MIT**, selected to participate at the MIT Reality Virtually Hackathon.
- 2019- **The Graham Institute**, Dow Sustainability Fellowship.
- 2018- **Arts Engine, University of Michigan**, Arts Integrative Interdisciplinary Research Grant
- 2018- **MIT Technology Review Innovators Under 35**, Finalist of the annual award that recognizes outstanding innovators who are younger than 35 from the MENA countries (selected from 400+ nominations).
- 2018- **Taubman College of Architecture and Urban Planning, University of Michigan**, Outstanding Doctoral Student Award
- 2018- **University of Michigan**, Rackham Graduate Student Research Grant.
- 2018- **Community-Engaged Academic Learning, University of Michigan**, Engaged Pedagogy Fellowship.
- 2017- **Acoustical Society of America**, Student Council Travel Award.
- 2017- **University of Michigan**, Rackham International Students Fellowship for outstanding international students.
- 2017- **University of Michigan, Rackham Conference Travel Grant.**
- 2016- **Honored by the Ambassador Abdallah AlMouallimi** during “This is My Fingerprint” exhibition in New York, which presents the best Saudi students achievements.
- 2016- **University of Michigan, Rackham Conference Travel Grant.**
- 2015- **University of Michigan Doctoral Program Scholarship.**
- 2014- **Saudi Council and Ambassador in the US**, honored for my achievements and inventions.
- 2013- **Saudi Arabian Cultural Mission Scholarship Program.**
- 2013- **King Abdulaziz and His Companions Foundation for Giftedness and Creativity**, won the Competition and had been selected to present my invention (cymatic sound diffuser) in Ibtikar (an international exhibition for inventions).
- 2013- **King Abdulaziz Center for World Culture (Keystone program)**, had been selected to represent my team and participate with our invention (sound absorbers decorative tile) in the annual ArtScience Innovation Workshop in Paris.
- 2013- **King Abdulaziz Center for World Culture (Keystone program)**, had been selected to conceptualize and translate creative ideas, into marketable products and services in the field of Synthetic Biology. The program is affiliated with the Harvard ArtScienceLab.
- 2012- **University of Dammam, Grant to fund master thesis research.**
- 2007- **Saudi Council of Engineering, three years’ honorary membership for Academic Excellence.**
- 2003 to 2007- **University of Dammam, Yearly Honor for Academic Excellence.**

Languages

Arabic, English and French.

Certificates

- 2019- LEED Green Associate Certificate.
- 2019 U-M Graduate Teacher Certificate, Center for Learning and Teaching, University of Michigan.

Computer/Technical Skills

Acoustics software: **EASE, Acoustic 2D (AC2), Acoustic 3D (AC3), Odeon, QRDude, DIRAC, Chuck, Raven and Audacity.**

Operating Audio recording studios.

Programming software: **MATLAB, Arduino.**

Energy simulation software: **e QUEST, Energyplus and Ecotect.**

Statistics software: **R studio.**

Management simulation software: **Extend.**

Drafting and graphics software: **Rhino, Sketchup, AutoCAD, Form Z, PhotoShop and 3D Studio Max.**

Virtual reality: Oculus, 360 Samsung Gear, ambisonic VR audio.

Leadership and other Activities

2019 Volunteering at Xplore Engineering workshops to teach students (entering the 4th through 7th grade) about acoustics as part of the Michigan Acoustics student group.

2019 Mixed Methods Dissertation intensive 3days workshop organized by the University of Michigan.

2019 Principle researcher for the project titled “Sounds in the City: Mapping Acoustic Environments in Communities of Faith in Detroit and Dearborn”. The project was part of the Michigan-Mellon Project on the Egalitarian Metropolis which resulted in an exhibition titled “Mapping the Egalitarian Metropolis: Spaces of Hope”.

2019 Judging Students Research at the Undergraduate Research Symposium, University of Michigan.

2019 Organizing a workshop on teaching efficiently with technology for graduate student instructors at the University of Michigan

2018 Member in the Search Committee for the Director of Doctoral Studies, University of Michigan.

2018 Organizing a workshop titled: Using Digital Tools to Facilitate Student Collaboration with the Center for Research on Learning and Teaching, University of Michigan.

2018 Consultant for Graduate Student Instructors, Center for Research on Learning and Teaching, University of Michigan.

2018 Elected to be the Doctoral Student Representative at the College of Architecture, University of Michigan.

2018 Organizing member of the Graduate students International Conference at the College of Architecture, University of Michigan.

2018 Michigan Acoustics student chapter representative.

2017 Board member of the Planning and Architecture Research Group.

2017 Ambassador in an interdisciplinary initiative for supporting Saudi Students in the US.

2017 Member of the Sound Studies group at Rackham Graduate School- University of Michigan.

2017 Curating the doctoral colloquium conversation (The Critical City) at the University of Michigan.

2016 Curating the doctoral colloquium conversation (Conversations on Building Technology) at the University of Michigan.

2014 Participating in designing a proposal of a green roof for the building of CELOP (Center of English Language and Orientation) at Boston University.

2014 Assisting with various activities in the Boston Children Museum.

2013 Presenting a lecture for beginner entrepreneurs with the collaboration of Sayhat Association for Social Services.

2012 Organizing member of the Sustainability through Biomimicry conference.

2012 Preparing documents for the accreditation of National Organization for Assessment and Accreditation (NCAAA).

2010- 2013 Participated in planning many symposiums and conferences at the University of Dammam, contributing as:

- Leader of the exhibition committee.
- Coordinator of College of Design website.
- Member of the scientific committee.
- Member of the media committee.