

RESUME

Current Position:

Director of Design Technology |
Adjunct Lecturer | BIM Design
Consultant.

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ZAKI MALLASI

PHD, LEED BD+C

Website: www.iconviz.com

Portfolio: <http://www.iconviz.com/folio.pdf>
YouTube:

www.youtube.com/@dr.zakimallasi1338

Non-profit: www.ascaad.org

EDUCATION


2000-2004 ● **PhD**, 4D CAD/VR Visualization in Architecture and Construction Planning
University of Teesside, School of Science and Technology, Middlesbrough, UK

1998-1999 ● **MSc Virtual Environments (VE)**, University College London, The Bartlett School of
Graduates Studies, London, UK


1991-1996 ● **BSc Architecture**, Grade: 2nd Class Honors, The University of Khartoum, Khartoum,
Sudan

PROFESSIONAL EXPERIENCE


May 2024 ● **Director of Design Technology**, KCCT Architects, Washington, DC, USA

- March 2021

- Lead the integration and implementation of BIM design tools into the project lifecycle for both KCCT's domestic and overseas projects.
 - Establish the firm's BIM standards, procedures from scratch and provided instruction and advisement on various 3D modeling methods, rendering and graphic presentation software.
 - Worked with firm principles, key project designers, and project teams in leading the integration of digital technology and the digital practice.
 - Plan and provide leadership with roadmap vision for strategic design technology and created actionable goals to senior management.
 - Occasionally participate as project-based architectural staff to execute advanced design concepts utilizing Revit parametric design.

May 2024 ● **Associate, Director of Design Technology**, Hickok Cole Architects, Washington,
DC, USA

- March 2021

- Created SWOT analysis and established the firm's strategic design technology roadmap for integration within the business operation and architecture project delivery.
 - Assisted the technical design team in implementing multi-family unit design test-fits utilizing Dynamo/Revit parametric design at various stages of design.
 - Helped to shape and deliver multiple award-winning projects in Washington DC as primary interface between design team and consultants utilizing Revit/BIM modelling and execution strategy.
 - Handled the in-house BIM/Revit coordination meetings with project teams and discipline leaders across offices for consistent BIM execution on projects.

March 2021 ● **Architectural Design BIM Manager**, AECOM, Baltimore, MD, USA

- July 2017

- Participate in the development of conceptual design, with minor supervision, and works with the design Principal to generate a wide range of illustrations and unique technical details.
 - Participate with the design team in advancing the architectural project execution utilizing Revit/BIM execution plan.
 - Prepare and present with team the design presentation ideas to the client.
 - Assist in advanced BIM Modeling for specific design discipline and architectural features.

Projects: New VIP Airport Terminal [130,000sf, \$30M], Clark International Airport [450,000sf, \$175M], and Terminal Modernization Project [750,000sf, \$400M].

July 2017 ●
Dec. 2011
(part-time)



Architectural Lead Designer (part-time), Effat University, Jeddah, Saudi Arabia

- Worked on campus projects closely with our University Technical Committee (UTC) Engineers and as direct Adviser to the University President.
- Developed area program and use analysis, site landscaping and complete 2D/3D exterior façade design presentation from conceptual to design development in coordination with end-user goals.
- Transformed the whole exterior design concept and building massing per client request and with support from external engineering consultants.
- Produced different building exterior façade design themes.
- Performing Construction Administration activities, including site visits to review conformity of construction with design intent, evaluated performed works, reviewed sample of materials as in the specification, schedule tracking, and to initiate payments approval.

Projects: New Effat Library and Cultural Museum [70,000sf, \$14M], New School of Business [125,000sf, \$20M, in finishes tender phase], King Faisal District Revitalization proposal, and the New College of Architecture and Design competition.

Aug. 2011 ●
Nov. 2006



Architectural BIM Specialist, Perkins + Will, Atlanta, USA.

- Assisted in Revit-BIM projects: production of the SD, DD and CD packages, building facade design, model-based pricing, prepared 2D/3D visualization, basic interior-exterior renderings, and PhotoShop presentation.
- Performed at schematic design phase environmental analysis including: shading/screens elements, solar exposure, LEED credits documentation, daylight analysis, and skin wall type material comparisons.
- Prepared the construction documents ensuring coordination of architectural design with structural and MEP consultants.

Projects: Clayton and Therrell High Schools (Atlanta) [200,000sf, \$35M], Duke Medicine Pavilion (Durham) [600,000sf, \$600M], Macon Medical Center [Macon] [50,000sf, \$10M] and King Saud Bin Abdul-Aziz Medical Campus (Riyadh, Saudi Arabia).

Nov. 2006 ●
Aug. 2006



Architectural BIM Specialist, RCMS Group, Atlanta, USA.

- Managed construction documents production and coordination, quality control, reviews, attended meetings with architect of record for coordination, and other duties involving the architectural services.
- Acted as group leader, managing a team of junior draftsmen.

Projects: Spellman College Student Residence (Atlanta) [150,000sf, \$25M]

Aug. 2006 ●
Aug. 2005



BIM Manager, Bond Bryan Architects, Sheffield, UK.

- Developed working procedures and standards for implementing standard 3D Building Information Model (BIM) in the K12 projects using ArchiCAD.
- Managed the BIM model on the design process alongside the Education and Commercial market sector design group.
- Worked with designers to produce 2D/3D visuals and helped in the architectural design process.
- Extended capabilities of BIM to produce environmental analysis using ECOTECT software.

Projects: Bradford Academy School (Bradford, UK) [170,000sf, \$32M], ACES Furnival (Sheffield University, UK) [140,000sf, \$25M].

June 2004 ●
Aug. 2002
(part-time)



Web Designer, The University of Teesside, UK.

- Designed and developed an academic research web site to serve the effective operation of its members in the VR-NET academic research network.
- Maintained the web pages information up to date.

April 2002 ●
Nov. 2001
(part-time)

Interactive Learning Technology (ILT) Designer, The Stockton Six Form College, Stockton-on-Tees, UK.

- Supported the Teachers and Students by designing an online interactive lessons. The 3D interactive lesson materials were designed using Macromedia



Flash, VRML, and 3D Studio Max, with the aim of raising standards in teaching Math, Art, and Physics using interactive technology.

July 2000
April 2000



Architectural Assistant, Arnold and Boston Chartered Architects, London, UK.

- Produced 2D working drawings for the new extension of Imperial War Museum [160,000 sf] [\$27M].
- Under supervision of project architect, completed the construction drawings set in co-ordination with the design team, detail of floor plans, sections, provision of fire escape and life safety plans.

Aug. 1998
March 1998



Intern Architect, Zaki Farsi Architects and Planners, Jeddah, Saudi Arabia.

- Drafted and produced working drawings for the Al-Farsi Plaza office building (110,000 sf, \$15M Riyals).
- Assisted in the documentation of technical specification.
- Worked closely with the marketing department in the production of photorealistic renderings of office units, brochures, and 3D walkthrough.
- Helped prepare outline specifications, bill quantities and tender document.



ACADEMIC EXPERIENCE

Present
Jan. 2022



Adjunct Lecturer, Part-time, College of DuPage, Architecture and Construction Management, Glen Ellyn, IL.

- Courses Taught: BIM and Construction Management (ARCH-2413) Introduction to Building Information Modeling (BIM) applications for the construction industry.
- BIM history, platform and challenge. Defining process, adoption, and integration as related to BIM implementation.
- Supervised students final project implementing BIM in construction using Revit/Navisworks/MS Project and other digital tools.

Present
Dec. 2021



Adjunct Lecturer, Part-time, HACC, Central Pennsylvania's Community College, Harrisburg, PA.

- Architectural Working Drawings I (ARCH-112): preparation of architectural working drawings in AutoCAD for a wood frame housing project. Applications of International Residential Codes.
- Architectural Working Drawings II (ARCH-212): Architectural Working Drawings II: taught the use of Revit as BIM software to 3D model and prepare construction documents set for a commercial project of steel.

July 2017
Sep. 2011



Assistant Professor, College of Architecture and Design, Effat University, Jeddah, Saudi Arabia.

- Courses Taught: Architectural Design Studios (204, 305, 407, 408, and Comprehensive Capstone projects - Thesis); LEED and Sustainability; Energy and Environmental Design; 2D/3D visual studies in architecture; Construction Drawings; Design Computation; Parametric Design.
- Directed for one year the research activities in the Computational Design (CD) Research Lab.
- Collaborated with faculty members to prioritize the CD Lab research needs and addressed core research thrusts: design computation, tectonic structures, BIM, smart materials, digital design & construction, simulation, and sustainable buildings

Jan. 2010
Jan. 2009
(part-time)



Lecturer, GA Tech., College of Architecture, Atlanta, USA.

- Taught BIM Theory and Applications to architecture and building construction students. And assessed the work and progress of students.

July 2005
June 2004

Construction CAD Research Developer, the Centre for Construction Innovation and Research (CCIR), University of Teesside, UK.

- Captured requirements for the design, development and creation of 3D/4D



- CAD/VR visualization and implementation in construction projects.
- Worked with SME engineering contractors towards the implementation of ICT solutions to engineering-business problems.

June 2003 ●
July 2000 ●



- PhD Researcher Fellow**, the University of Teesside, Middlesbrough, UK
- Worked as a researcher in the **VIR**tual **CON**struction (VIRCON) research project, a funded scholarship from UK EPSRC to investigate new 4D/CAD emerging technologies in construction project planning.
- The main project collaborators were UCL, University of Wolverhampton, and industrial partners like: Bond Bryan Architects, AMEC, ABB, and Balfour Beatty.



PUBLIC SPEAKING

- February 2024 ● **Collaboration with End-Users into Innovative Computational Tools.** Advancing Computational Building Design, New York, USA, February 2024.
- November 2022 ● **Dynamo Packing Made Easier: Transforming a Fun Layout Planning Exercise to a Practical Multi-Family Residential Project Application.** Digital Built Environment Institute – BiLT ANZ 2022, Gold Coast, Australia.
- July 2018 ● **'Integrated Building Performance: Outlining the Workflow, Tools & Techniques Used by Architects & Engineers'.** 2nd Advancing Computational Building Design, New York, USA.
- Nov 2016 ● **'Integrating Physical and digital Prototypes Using Parametric BIM in the Pursuit of Kinetic Façade'**, 8th ASCAAD 2016 International Conferences: Parametricism V. Materialism, SOAS, London, UK.
- April 2016 ● **'Rethinking the Discourse of Architectural Education Teaching Using BIM Technology'**, The 13th Learning and Technology (L&T) Conference, Effat University, Jeddah, Saudi Arabia.
- Dec. 2015 ● **'Prototyping Future Smart City Forms: Combining Sensory Technology and BIM Simulation to Visualize Environmental Impact'**, INCONET-GCC2, International Conference Collaboration for Innovation, Muscat, Oman.
- May 2015 ● **'New Effat Library and Cultural Museum Project Design Presentation'**, Inauguration and opening ceremony, Effat University, Jeddah, Saudi Arabia.
- Oct. 2012 ● **'Performance-Driven Façade Configuration: Parametric Thinking for Integrated Building Practice'**, AIA Middle East, Architecture and design Days, Jeddah, Saudi Arabia.
- Aug. 2008 ● **'BIM For Owners'**, in the Atlanta Association of Owners presentation and discussion panel, Atlanta, USA.
- June 2005 ● **'Virtual Reality and nD Construction Simulation Seminar'**, in the Association of Researchers in Construction Management (ARCOM), Middlesbrough, UK.
- April 2003 ● **Workshop on 4D Visualization Development**, at Balfour Beatty Contractors, London, UK.



GRANTS AND AWARDS

- 2022 ● **Best Conference Paper Award**, "A Pixel-Based Design Approach for Parametric Thinking in Patterning Dynamic Facades", ASCAAD 2022 International Conference, Beirut, Lebanon.
- Dec. 2015 ● **Responsive Façade Prototype – Integrating Environmental Receptors with Building Information Model**, Effat University. Value: \$13,400, Duration: one year.
- January 2015 ● **Design Excellence Appreciation Certificate for designing the New Effat Library and Cultural Museum**, Effat University, Jeddah, Saudi Arabia.
- May 2014 ● **Queen Effat Award for Excellence in Teaching, Architecture Department**, Effat University, Jeddah, Saudi Arabia.
- Feb 2011 ● **AWR: LOFT London Farm Tower Competition**, Perkins + Will, Atlanta, USA. [<http://iconviz.com/blog/DDblog.php/2011/09/24/vertical-farming-competition-scheme>]
- Feb 2010 ● **First Prize in 'Design School for the Socially-Aware Education'**, Support by Perkins + Will Innovation Incubator Grant Atlanta, USA. Value: \$1,000, Duration: one month. [<http://www.sociodesignfoundation.com/2010-2011-winners-for-integrat/>]

May 2005 ● **Co-recipient of the First Prize Award in Science and Technology**, Business Plan Competition, University of Teesside, Middlesbrough, UK, Value: \$1,600.



ORGANISATIONAL SKILLS

- April 2016 ● **Editor and Scientific Committee Member**, multiple ASCAAD International Conferences (www.ascaad.org).
- January 2015 ● **New Effat Library and Cultural Museum**, project inauguration ceremony and building tour, Effat University, Jeddah, Saudi Arabia.
- April 2014 ● **Scientific Co-Editor**, ASCAAD 7th International Conference 'Digital Crafting', Effat University, Jeddah, Saudi Arabia (www.ascaad.org).
- Nov. 2007 ● **Scientific Co-Editor**, ASCAAD Third International Conference 'Embodying Virtual Architecture', Bibliotheca Alexandria, Alexandria, Egypt (www.ascaad.org).
- April 2006 ● **Scientific Co-Chair**, ASCAAD 2nd International Conference 'Computing in Architectural Design: Re-Thinking the Discourse', American Uni. of Sharjah, UAE.
- April 2001 ● **MFC Study Support Centre Web Launch Day Organizer**, MFC Study Support Centre, Middlesbrough Football Club.



COMPUTER SKILLS

Desktop Publishing	MS Office Suite, Adobe Photoshop, InDesign, Macromedia Dreamweaver, and MS Project Schedule.
Multimedia 3D Apps.	Revit Architecture, Insight360, Sefaira, Ecotect, Enscape Rendering, Virtual Reality, AutoCAD, ArchiCAD, SketchUp, 3DS-MAX, BIM360 Admin, and Navisworks.
Scripting	Dynamo Studio, C#, HTML, VB.NET, and Arduino.



LIST OF PUBLICATION

Published thirteen papers in international conferences, five articles in journal papers, three technical reports, and in recently a BIM article in the Building Design + Construction magazine (*available at <http://www.iconviz.com>*), and Google scholar profile (<http://scholar.google.com/citations?user=LHdSStkAAAAJ&hl=en>).



PROFESSIONAL ASSOCIATION

- ❑ **Sudanese Institute of Architects**, Full Member (No.: 1093).
- ❑ **Autodesk ® Revit Architecture Certified Professional**.
- ❑ **LEED BD+C**, (Leadership in Energy and Environmental Design) Accredited Professional, Atlanta, USA.
- ❑ **NAAB**, (National Architectural Accrediting Board) Accredited, Washington DC, USA.
- ❑ **NCARB** (National Council of Architectural Registration Boards) record completed.
- ❑ **ASCAAD Board of Directors Member** and past elected President (Arab Society for Computation in Architecture, Art and Design).

References are available upon request.