Dr. ASEEL HUSSIEN

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Profile

Dr. Aseel Hussien is an Assistant Professor in the Architecture Engineering Department, Faculty of Engineering at the University of Sharjah (UoS), joined in September 2020. Previously Dr. Hussien was an Associate Professor (Program Leader) at Liverpool John Moores University (LJMU) and has been involved in teaching several modules at various levels. She has a strong academic background with solid experience of over 14 years (since 2006) in teaching and learning in HE. This demonstrates her excellent teaching and learning abilities to foster students' critical skills leading to significantly improved performance. She is comfortable with all teaching environments and able to demonstrate a vast range of other transferable skills and organizational as well as administrative expertise.

Dr. Hussien holds a (BSc) degree in Architecture Engineering and an (MSc) in Computing Information Systems (Applying AR/VR in the Adaptive Building Construction). She completed her Ph.D. from the Department of the Built Environment at LJMU in May 2017. She had received a fully funded "Dean Scholarship" for her Ph.D. research study entitled "ARGILE: a Conceptual Framework for Combining Augmented Reality with Agile Philosophy for the UK Construction Industry" in which she developed a novel integration of Augmented Reality (AR) technologies with Agile Project Management philosophy to enhance collaboration and decision-making within the construction industry.

Dr. Hussien has been involved in several pedagogical and curriculum enhancement research projects with faculties from the Department of Computer Science and Department of the Built Environment, and students, which resulted in several high-quality international publications with the students (aka research-informed teaching). She is also a reviewer of many international conferences and high-quality peer-reviewed journals.

In January 2018, Dr. Hussien has managed the Building Surveying and Facilities Management programs where she leads a group of nine senior faculties and works closely with relative module leaders and faculty Associate Dean of Education. Dr. Hussien has taken the lead role in managing a team of fellow academics in her role as Module Leader for the Department's Level 4 Interdisciplinary Collaborative Project module (BIM), taken by first-year students (approx. 250) as an intensive weeklong project. Dr. Hussien demonstrated skills in bringing the team together with a clear goal and enabled the project to be delivered with success. Her organizational abilities shone through so much so that she has been asked by senior management to co-ordinate the final year, Level 6, Interdisciplinary Project (BIM) for which she works and leads another team of academics to deliver this critical project. Dr. Hussien has been awarded twice the Erasmus funding to support new students' study visits to Nova University, Portugal, where she acted as a Mentor to a group of 15 students as they completed fieldwork abroad. Overall supervision, management, and mentoring are an aspect of Dr. Hussien's professional development that has significantly improved in recent years as she has demonstrated increasing confidence in her ability to lead and motivate others.

Research Interests:

Dr. Hussien principal research interests lie actively on the following topics:

- Bio-based construction materials
- Building Information Model (BIM)
- Augmented Reality (AR), Virtual Reality (VR), Mixed Reality (MR), Extended Reality (ER)
- Smart city and intelligent buildings
- Construction 4.0 technologies
- AR/VR in Teaching and Learning in Higher Education
- The integration of AR and Drones
- Prefabricated modular type homes
- Heritage retrofitting and energy-efficient solutions.

Education:

ACADEMICS….

P.hD. 2017, Department of the Built Environment, Faculty of Engineering and Technology, Liverpool John Moores University (LJMU), in Augmented Reality and Agile Philosophy, thesis entitled "*ARGILE: a conceptual framework for combining augmented reality with agile philosophy for the UK construction industry*".

MSc. 2010 Faculty of Engineering and Technology, Liverpool John Moores University (LJMU), in Computing Information Systems, thesis entitled: "*The Use of Virtual Reality Technology to Support the Adaptive Building Design and Construction*".

BSc. 1997 Department of Architecture Engineering, College of Engineering, Baghdad University, in Architecture Engineering, Graduation project entitled: "*Baghdad Opera House Design project*".

PROFESSIONAL…

iLM Leadership and Management (Coaching and Mentoring), Liverpool John Moores University 2018.

StellarHE Strategic Executive Development for Diverse Leaders in Higher Education certificate, Liverpool John Moores University 2015.

PGCert Post-Graduate Certificate (Master level) in Teaching and Learning in Higher Education, Liverpool John Moores University 2011.

Employment History:

Academic Employment

Assistant Professor Architecture Engineering Department, Faculty of Engineering, University of Sharjah (September 2020-present)

Associate Professor (Programme Leader), Liverpool John Moores University (2018 – 2020), I have been promoted to Associate Professor. I have been involved in various management roles and formal line management responsibilities for the academic faculties in the subject area including:

Academic Duties…

- Teaching various modules across programs at all levels, evaluating teaching and learning practice, and delivery methods to enhance students' experience.
- Working and collaborating with faculties from different programs to support a strong academic program identity.
- Producing teaching materials informed by current research that motivate and inspire student learning.
- Helping the student to engage and raise their aspirations, and enhance the students' employability, via developing innovative teaching methods, and providing a wide range of resources, in teaching, learning, and assessment strategies.
- Supervised undergraduate and postgraduate students.
- International collaboration with Texas A&M University TAMU, organizing study aboard summer programmer for the students.
- International collaboration with the University of Malaya UM, organizing study aboard summer programmer for the students.

Management Duties…

- Delivering the program using appropriate teaching and learning and assessment methods, effecting any necessary modifications, communicating information to students.
- Ensure the effective planning, management, and review of the program, adhering to specified monitoring and evaluation procedures.
- Taking forward any new program proposals following due process and in accordance with faculty strategy.
- Responding to feedback from students, external examiners, Professional bodies, and industry.
- Allocating duties to faculties within the program of architecture technology, building surveying, and facilities management to ensure academic objectives are met while ensuring an equitable distribution in the overall workloads (including teaching, research, administration) of individual faculties.
- Identifying and progressing national and international collaborative partnerships.
- Operation of faculties appraisal and faculties development schemes within the subject area of architecture technology, building surveying, and facilities management.
- Representation of the architecture technology, building surveying, and facilities management on the School Management Team. In addition, facilitating effective communication with the School and Faculty.
- Representing the architecture technology, building surveying, and facilities management, on appropriate fora, as determined appropriate by the Director of School and Dean.
- Representing the subject area on external fora, including Professional Bodies, as determined appropriate by the Director of School.

- Leading the BIM projects for both L4 and L6. This module is cross-department collaborative projects, including (250-275) students each year, leading the involved faculties from different programs.
- Organizing and participating in the events of the LJMU Black, Asian & Minority Ethnic (BAME) networking.
- Organizing and participating in the RICS even at LJMU.
- Collaborating with industry professionals in organizing for students' site visits to different sites around Northwest.

Assistant Professor (Senior Lecturer), Liverpool John Moores University (2007– 2018)

Since joining LJMU, I have been involved in teaching various modules across programs at all levels.

Academic Duties…

- Contributing to the program in module development and curriculum review.
- Planning courses in line with LJMU's Learning Teaching and Assessment strategy, Academic Framework, and quality requirements.
- Lecturing, teaching, assessing at all levels and evaluating teaching and learning practice, and delivery methods to enhance students' experience.
- Working and collaborating with faculties from different programs to support a strong academic program identity.
- Producing teaching materials informed by current research that motivate and inspire student learning.
- Helping the student to engage and raise their aspirations, and enhance the students' employability, via developing innovative teaching methods, and providing a wide range of resources, in teaching, learning, and assessment strategies.
- Implementing the use of technology to support learning and teaching including LJMU's VLE and the use of VR/AR.
- Supervising and providing support and guidance for student learning activities during placements year.
- Marking, and assessing assignments and examinations.
- Providing timely, effective, constructive, and high-quality feedback to the students in the undergraduate and the postgraduate programs.
- Responding to student feedback and taking action on it.
- Providing academic support and guidance for students.
- Developing modules, learning activities, assessments, and the subject material according to the discussion with the external examiners.
- Ensuring the students have an effective learning experience and encourage the student to practice their basic learning-related skills.
- Supervising, moderating, and supporting the student learning activities, such as work-based learning and research activities for undergraduate and postgraduate students' projects.

Management Duties…

- Leading the BIM projects for both L4 and L6. This module is a cross-department collaborative project, including (250-275) students each year, leading the involved faculties from different programs.
- Organizing and participating in the events of the LJMU Black, Asian & Minority Ethnic (BAME) networking.
- Organizing and participating as a part of a team in the ASC conference 2020, managing and developing the conference program, designing the program documents and flyers. • Session chair in the DeSE 2019.
- Leading the development of the Department of the Built Environment web site and faculties profiles.
- Designed and developed the first online courses in the Department of Computer Science.
- Leading the development of the online modules for the online MSc. In Sustainability for the Department of the Built Environment.
- Leading the development of the online modules for the Ghana program.
- Acting as a personal tutor to L4 Architecture Technology students.
- Working as part of a team in preparation for the Architecture Technology Accreditation by CIAT
- Organizing and participating in the CIAT even at LJMU.
- Participating in the open days and applicant day.
- Participating in the induction week activity, and leading the spaghetti bridges activities.
- Participating as a part of a team in L6 Joint project.
- Developed and run the Architecture Technology forum.
- Collaborating with the industry and inviting professionals as guest speakers.
- Collaborating with RedRow Homes and organizing for students' site visits to different sites around Northwest.
- Collaborating with BDP for gusts speakers for the collaborative interdisciplinary project 1.
- Participating in ongoing professional development and evaluation of practice relating to learning, teaching, and assessment in line with qualifications and experience, changes in subject, discipline, pedagogic development, and innovation in learning technology.
- Participating in the improvement of teaching through the faculty's observation and peer review schemes by acting as a faculty observer.
- A professional observer for the current PG Cert/3Is students across the faculty.
- Design and develop the online assessment for several modules across the department.
- Designed and developed the 3D Virtual Site visits for the Dilapidation module, (Level 5).
- Developing as part of a team the BIM Projects for Level 4, Level 5, L6, and L7.
- Acted as the Program Leader for the HND/HNC Building Surveying in the Department of the Built Environment.
- Acted as a member of the Department of the Built Environment Quality committee.
- A member of the VR/AR group, leading the development of the VR/AR within the Faculty.
- A member of the drones' group, leading the development of the drones within the Faculty

Industrial Employment

2003-2006
Sigma International Construction/Iraq Job Role: Architect
2001-2003
Al-Main Architects/Iraq Job Role: Architect
1998-2001
Engineering corner/Iraq Job Role: Architecture assistant

Professional Memberships:

- RIBA
- FHEA (Fellow of the Higher Education Academy)

Theses and Projects Supervision:

Supervised more than 80 MSc. And 3 Ph.D. student, with different subjects: samples of thesis titles below:

- Assessment of novel bio-based building materials to improve the indoor thermal comfort of rural housing in tropics.
- Energy Efficiency Compliance in Listed Buildings: What are the indicators of the acceptable level of energy efficiency compliance in listed buildings?
- How will Digital Built Britain help and support the changeover and implementation from BIM level 2 to BIM level 3 by 2020.
- Does the process of buying "Off Plan" affect the quality of new build properties?
- Modular and Prefabricated construction methods and how it has revolutionized the construction industry.
- An investigation into the drivers and barriers of integrating building information model (BIM) into the design and build procurement.
- Creating a Roadmap for the Implementation of BIM in Large Contracting Organisations in the UK
- Review of the use of building information modeling as a design platform in modern methods of construction

Awards and Recognitions:

2015-2016 Amazing Teaching Award in the category of Amazing Course Team, the recipients of the LJMU Vice Chancellor's award for best program and support team (BIM project).

Research

Funded projects:

Year	Project title	Outcomes in brief
2019-20	Erasmus fund faculties mobility for teaching agreement 2019-20. Joint FCT NOVA–LJMU Workshops on Biobased Building Materials, BIM and Augmented reality.	• International faculties collaboration • International students' collaboration. • Research-informed teaching will influence teaching materials.
2018-19	Erasmus fund faculties mobility for teaching agreement 2018-19. Joint FCT NOVA–LJMU Workshops on Biobased Building Materials, BIM and Augmented reality.	• International faculties collaboration • International students' collaboration. • Research-informed teaching will affect teaching materials
2018-19	REF Up-skilling Project (LJMU), titled:" A BIM-based approach for bio-based buildings that utilize IES in the integrated design for the cost and embodied carbon optimization".	• Producing high-quality Journal paper in time for REF2021. • Research informs teaching will impact on teaching materials. • Future fund application within the research area. • International collaboration
2017-18	Curriculum Enhancement Internship project fund for "ClouDucation: a new educational toolkit for teaching and learning cloud computing and its technologies", funded by LJMU, UK.	• Produced 2 international high-quality teaching and learning papers titled: 1. "Viducation: Animated videos for cloud computing education", the 11th annual International Conference of Education, Research and Innovation (iCERI). 2. "Game-based Learning in a Real-Life Business Context Using Didactic Mashup Concepts", the 10th annual International Conference of Education, Research and Innovation (iCERI). • Faculty collaboration. • Developing the article into high-quality learning and teaching and journal
2018-17	Erasmus fund faculties mobility for teaching agreement 2017-18. Joint FCT NOVA–LJMU Workshops on Biobased Building Materials, BIM and Augmented reality.	• Applied for the up-skilling fund to complete the research work. • International faculties collaboration • International students' collaboration. • Research-informed teaching will impact teaching materials. Applying for the Erasmus fund faculties mobility this year too.

PUBLICATIONS:

JOURNAL ARTICLE

2020

Rehman S., Javed A., Khan M., Awan M., Farukh A., Hussien A., 2020. Comfort: A Personalised Thermal Comfort Model to Predict Thermal Sensation Votes for Smart Building Residents. Journal of Enterprise Information Systems.

Jannat N, Hussien A, Abdullah B, Cotgrave A. 2020. Application of agro and non-agro waste materials for unfired earth blocks construction: A review Construction and Building Materials

Priya RM S, Bhattacharya S, Maddikunta PKR, Somayaji SRK, Lakshmanna K, Kaluri R, Hussien A, Gadekallu TR. 2020. Load Balancing of Energy Cloud using Wind Driven and Firefly Algorithms in Internet of Everything. Journal of Parallel and Distributed Computing.

Jannat N, Hussien A, Abdullah B, Cotgrave A. 2020. A Comparative Simulation Study of the Thermal Performances of the Building Envelope Wall Materials in the Tropics Sustainability.

Abdulhussain, S.H., Al-Haddad, S.A.R., Saripan, M.I., Mahmmod, B.M. and Hussien, A., 2020. Fast Temporal Video Segmentation Based on Krawtchouk-Tchebichef Moments. IEEE Access, 8, pp.72347-72359.

2019

Souri A, Hussien A, Hoseyninezhad M, Norouzi M. 2019. A Systematic Review of IoT Communication Strategies for an Efficient Smart Environment Transactions on Emerging Telecommunications Technologies.

Ghobaei-Arani M, Souri A, Shamsa TB, Hussien A. 2019. ControCity: An Autonomous Approach for Controlling Elasticity Using Buffer Management in Cloud Computing Environment IEEE Access.

BOOK CHAPTERS

2020

Al-Khafajiy M, Shamsa TB, Hussien A, Cotgrave A. 2020. UAV and Fog Computing for IoE-Based Systems: A Case Study on Environment Disasters Prediction and Recovery Plans Unmanned Aerial Vehicles in Smart Cities Springer DOI

Hussien A, Waraich A, Paes DC. 2020. A Review of Mixed-reality Applications in Construction 4.0 Construction 4.0: An Innovation Platform for the Built Environment Routledge

CONFERENCE PUBLICATION

2019

Al-Khafajiy M, Ghareeb S, Al-Jumeily R, Almurshedi R, Hussien A, Shamsa TB, Jararweh Y. 2019. A Holistic Study on Emerging IoT Networking Paradigms Developments in eSystems Engineering (DeSE)

Alsmadi H, Aljaaf A, Hussain A, Shamsa TB, Mallucci C, Hussien A, Al-Jumeily R. 2019. An Insight into ICP Monitoring of Patients with Hydrocephalus using Data Science Approach Proceedings of IEEE/ACS International Conference on Computer Systems and Applications, AICCSA, 16th ACS/IEEE International Conference on Computer Systems and Applications AICCSA 2019

Al-Khafajiy M, Shamsa T, Waraich A, Alfandi O, Hussien A. 2019. Enabling High Performance Fog Computing through fog-2-fog Coordination Model 16th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2019)

Hussien A, Tucker M, Cotgrave A, Al-Khafajiy M, Shamsa TB. 2019. Optimizing Project Delivery through Augmented Reality and Agile Methodologies Developments in eSystems Engineering 2019

2018
Shamsa TMSB, Hanneghan M, Hussien A, Housden A, Duffy L, Kot P. 2018. VIDUCATION: ANIMATED VIDEOS FOR CLOUD COMPUTING EDUCATION 11th annual International Conference of Education, Research and Innovation

2017
Baker T, Hussien A, Hanneghan M, Faci N. 2017. Game-based Learning in a Real Life Business Context Using Didactic Mash-up Concepts 10th annual International Conference of Education, Research and Innovation (iCERI 2017)

2012
Baker T, Taleb-Bendiab A, Randles M, Hussien A. 2012. Understanding Elasticity of Cloud Services Compositions The 5th IEEE/ACM International Coference on Utility and Cloud Computing (UCC2012)

Baker T, Taleb-Bendiab A, Randles M, Hussien A. 2012. Understanding Elasticity of Cloud Services Compositions 2012 IEEE/ACM FIFTH INTERNATIONAL CONFERENCE ON UTILITY AND CLOUD COMPUTING (UCC 2012), 5th IEEE/ACM International Conference on Utility and Cloud Computing (UCC)

2010
Baker T, Hussien A, Randles M, Taleb-Bendiab A. Supporting Elastic Cloud Computation with Intention Description Language 2010, The 11th Annual Conference on the Convergence of Telecommunications, Networking & Broadcasting