



Staff Member Name
Mohammed Mahmod Ahmad Shuaib

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General Specialization: Applied **Mathematics**
Major: **Mathematical Modeling**

- **Academic Rank:**

Associate professor

- **Qualifications:**

1	PhD in Applied Mathematics, University of Science of Malaysia, in 2011.
2	MSc in Mathematics, College of Science, University of Jordan, in 2003.
3	BA in Mathematics/ field teacher (Mathematics), University of Jordan, in 1999.
4	Diploma , specialization in programming, AL Andalus College (AL-Balqa Applied University).

- **Career Objectives:**

1. Teaching mathematics, not limited to presenting facts (procedural understanding), but also focuses on conceptual understanding: creating deep connection, focusing on basic ideas and providing an ideal learning environment within the classroom to help students think logically and insightfully.
2. Contributing to scientific research with effective scientific production.
3. Employing my scientific knowledge in giving educational, knowledge and research lectures, whether for students of the department, university or the community in which I live. I am also keen to participate in student cognitive, social and sports activities, whether in my university, school, or cultural clubs.



• Teaching Experience:

#	From	to	
1	2003	2008	Lecturer of Mathematics: Hail University
2	2012	2018	Assistant professor: Al-Imam Mohammad Ibn Saud Islamic University - Department of Computer Science, KSA.
3	2018	2022	Associate professor: Al-Imam Mohammad Ibn Saud Islamic University - Department of Computer Science, KSA.
4	2023	Till now	Associate professor. Zarqa University. College of Science, Zarqa, Jordan.

• Publications:

#	Title	Publisher	Year/ Issue (Vol/No)
1.	Modeling Risk and Precautionary Time Factors and Investigating Their Impact on Route Selection Behavior Under Fire Emergency.	The 8th International Arab Conference on Mathematics and Computations, 10-12 May 2023,	2024
2.	An Extension of the Exit Choice Model: Considering the Variance in the Perspectives of Evacuees When Interacting with the Spread of Fire	Sustainability (Journal)	2022
3.	Modeling Individuals Instinctive Reaction Against Dangerous Source when the Occurrence of Unexpected Contact.	International Conference on Information Technology (ICIT),.	2021
4.	Incorporating Intelligence for Overtaking Moving Threatening Obstacles.	The International Arab Journal of Information Technology	2020
5.	Modeling Overtaking Behavior for Pedestrian Dynamic using a Modified Social Force Model	AIP Conference Proceedings, Proceedings of the International Conference on Mathematical Sciences and Technology	2019



6.	Incorporating intelligence for typical evacuation under the threat of fire	Safety Science (Journal)	2018
7.	P-HS-SFM: a parallel harmony search algorithm for the reproduction of experimental data in the continuous microscopic crowd dynamic models	Journal of Experimental & Theoretical Artificial Intelligence	2018
8.	Incorporating Intelligence into Exit Choice Model for Typical Evacuation	Sains Malaysiana (Journal)	2017
9.	Modeling the capability of penetrating jammed crowd to eliminate freezing transition.	(Journal) Chinese Physics	2016
10.	A Comparative Taxonomy of Parallel Algorithms for Crowd Dynamics Models and their Simulators.	International Journal of Soft Computing.	2016
11.	Modeling the pedestrian ability of detecting lanes and lane changing behavior.	Modern applied science	2016
12.	An investigation capability model for bidirectional pedestrian flow.	Modern applied science	2015
13.	Preserving Socially Expected Crowd Density in front of the Exit for the Reproduction of Experimental Data by Modeling the Pedestrians' behind Perception	(Journal) JSTAT	2014
14.	A Harmony Search Algorithm for the Reproduction of Experimental Data in the Social Force Model. Journal of Applied Mathematics	Journal of Applied Mathematics	2014
15.	Incorporating Prediction Factor into the Investigation Capability in the Social Force Model: Application on Avoiding Grouped Pedestrians	Appl. Math. Inf. Sci. (Journal)	2013
16.	Modification of the Decision Making Capability in the Social Force Model for the Evacuation Process,	Transport theory and statistical physics,	2010
17.	Modeling the independence factor and its effect on the preferred force of the Social Force Model in emergency and non-emergency situations.	Appl. Math. Inf. Sci.	2011
18.	An Age Based Dynamic Respect Factor for Pedestrian Dynamics, Technology and Development.	Proceeding of the International Conference on Computer, 3rd, (ICCTD 2011)	2011



- Conferences

Duration	Title name	organization	Conference name	ت
2023	Modeling Risk and Precautionary Time Factors and Investigating Their Impact on Route Selection Behavior Under Fire Emergency.	Zarqa University	The 8th International Arab Conference on Mathematics and Computations, 10-12 May 2023,	.1
2021	Modeling Individuals Instinctive Reaction Against Dangerous Source when the Occurrence of Unexpected Contact.	Zaiytuna University	International Conference on Information Technology (ICIT),.	.2
2019	Modeling Overtaking Behavior for Pedestrian Dynamic using a Modified Social Force Model	AIB	AIP Conference Proceedings, Proceedings of the International Conference on Mathematical Sciences and Technology	.3
				.4
				.5

- Personal Information:

Name	:	Mohammed Mahmod Ahmad Shuaib
Place and Date of Birth	:	Kuwait, 20/08/1969
Nationality	:	Jordanian
Marital Status	:	Married
Address	:	Amman – Shafa Badran
Mobile:	:	079-8108901



1. Additional Information

GRANTS (WITH THE ROLE).

Completed grants:

- **(Principal Researcher):**
 1. Project entitled "Developing a Comprehensive Crowd Dynamics Model", No. IFG-IMAMU-5101, The Ministry of Higher Education in the Kingdom of Saudi Arabia, Institutional Funding for Research, Development and Innovation (2020-2022).
 2. Project entitled "Developing an Academic-Purpose Computational Tool for crowd Management Projects in KSA Universities", **No. 19-12-08-001**, Al-imam Muhammad Ibn Saud Islamic University (2020-2021).
 3. Project entitled "Developing Exit Choice Model for Typical Evacuation Process: Incorporating Individuals Interactions with Fire Spreading", **No. 380807**, Al-imam Muhammad Ibn Saud Islamic University (2019-2020).
 4. Project entitled "Modification of Crowd Dynamics model for Safe Evacuation: Incorporating Prediction ability and Exit Choice Adaption as aspects of Human Intelligence", **No. 370807**, Al-imam Muhammad Ibn Saud Islamic University. (2017-2018).
 5. Project entitled "Development of the Investigation Capability Model for the Reproduction of Bidirectional Pedestrian Stream: applications on the Hajj crowd aspects", **No. 350807**, Al-imam Muhammad Ibn Saud Islamic University. (2015-2016).
- **(Co-Principal Researcher):**
 6. Project entitled "An Improved Investigation Capability Model for the Reproduction of Bidirectional Pedestrian Stream using Harmony Search Optimization Algorithm", No. S-1434-0183, University of Tabuk. (2013-2014).

Visiting researcher:

- Universiti Sains Malaysia. (from 6/7/2012 to 27/8/2012).
- Universiti Sains Malaysia. (from 17/7/2018 to 16/8/2018).

Supervision:

Graduated students: 2 Masters

ACADEMIC AWARDS

1. Excellent publication award 2021 (granted by IMAM University).
2. Excellent publication award 2019 (granted by IMAM University).
3. Excellent publication award 2018 (granted by IMAM University).
4. Excellent publication award 2017 (granted by IMAM University).
5. Excellent publication award 2016 (granted by IMAM University).
6. Excellent publication award 2015 (granted by IMAM University).



7. Best representation award from the International Conference of Mathematics and Information Security (ICAMIS2009), Egypt.

PROFESSIONAL SKILLS

- Teaching several courses in mathematics using simulations.
- Implementing mathematical software throughout the courses.
- Programming using C++, MATLAB and Easy Java Simulation.
- Conducting scientific lectures and training courses for faculties and students.

MANAGEMENT ASSIGNMENTS

- The head of scientific committee.
- The head of complementary and alternative Exam Committee.
- Academic Advising for Bachelor Degree Students.
- Participating in Computer Science Program Specification Preparation.