## Ahmad Ali Salah

#### Associate Professor

#### Personal Data

Nationality | Canadian

Date of Birth | 15/04/1979

Department | Civil and Construction Engineering Department

Official IAU Email | aaasalah@iau.edu.sa

#### Language Proficiency

Language	Read	Write	Speak
Arabic	✓	✓	$\checkmark$
English	✓	✓	✓
French	✓	✓	✓

#### Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2010-2013	Ph.D. in Building Engineering – Construction Management	Canada- Montreal	Concordia University
2008/2010	M.Sc. in Building Engineering – Construction Management	Canada- Montreal	Concordia University
2005/2008	B.Sc. in Civil Engineering – Infrastructure	Beirut - Lebanon	Lebanese University

#### PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	Fuzzy Set-based Risk Management for Construction Projects
Master	Fuzzy Set-Based Contingency Estimating and Management

#### Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work		Date	
Assistant Professor	Imam Abdulrahman bin Faisal University	Saudi Arabia	2017	Present

Postdoctoral Fellow	University of Alberta	Canada	2016	2017
Research and Teaching Assistant	Concordia University	Canada	2011	2015
Area Manager	Zamil Industrial	Bangladesh	2007	2009
Projects Engineer	Zamil Industrial	Saudi Arabia	2005	2007
Project Engineer	AlFara'a Group	United Arab Emirates	2004	2005
Design Engineer	Ghalayini Consultancy and Design Office	Lebanon	2003	2004

## Scientific Achievements

## **Published Refereed Scientific Researches**

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	T. Salama, A. Salah, O. Moselhi,	Integrating Critical Chain Project Management with Last Planner System for Linear Scheduling of Modular Construction	Construction Innovation: Information, Process, Management (Accepted Dec 2020)
2	NG Seresht, R. Lourenzutti, A. Salah, AR Fayek	Overview of Fuzzy Hybrid Techniques in Construction Engineering and Management	Book Chapter, Emerald Publishing Limited, 2018
3	T. Salama, A. Salah, O. Moselhi,	Integration of linear scheduling method and the critical chain project management	Canadian Journal of Civil Engineering, 2018
4	A. Salem, A. Salah, O. Moselhi,	Configuration of hybrid modular construction for residential buildings	International Journal of Innovation, Management and Technology, 2017
5	A. Salah, A. Salem, and O. Moselhi,	Automated Fuzzy Set-Based System for Monitoring the Effects of Productivity Variation on Earthmoving Projects	International Journal of Innovation, Management and Technology, 2017
6	T. Salama, A. Salah, O. Moselhi, and M. Al-Hussein	Near optimum selection of module configuration for efficient modular construction,	Automation in Construction, 2017

7	A. Salem, A. Salah, M. Ibrahim, and O. Moselhi,	Study of Factors Influencing Productivity of Hauling Equipment in Earthmoving Projects using Fuzzy Set Theory	International Journal of Innovation, Management and Technology, 2017
8	T. Salama, A. Salah, and O. Moselhi	Configuration of Hybrid Modular Construction for Residential Buildings	International Journal of Innovation, Management and Technology, 2017
9	A. Salah, O. Moselhi,	Risk identification and assessment for engineering procurement construction management projects using fuzzy set theory	Canadian Journal of Civil Engineering, 2016
10	A. Salah, O. Moselhi,	Contingency modelling for construction projects using fuzzy-set theory	Journal of Engineering, Construction and Architectural Management,2015

## Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1	T. Salama, A. Salah, O. Moselhi,	Integrated Scheduling of modular construction using "mod-Scheduler"	Canadian Society of Civil Engineers (CSCE), 2019
2	T. Salama, A. Salah, and O. Moselhi	Integration of offsite and onsite schedules in modular construction	ISARC 34th Proceedings, 2017
3	T. Salama, A. Salah, and O. Moselhi	Alternative scheduling and planning processes for hybrid offsite construction	ISARC 33 <sup>rd</sup> Proceedings, 2016
4	A. Salah, O. Moselhi	Risk Monitoring and Control in Construction Projects	AACE International (AACEI) Transactions, Las Vegas, U.S.A., 2015
5	A. Salah & O. Moselhi	Estimating Post- and Premitigation Contingency in Construction,	WIT Transactions on Information and Communication, Risk Analysis IX, Wessex Institute, pp. 251- 261, New Forest, UK, 2014,
6	A. Salah and O. Moselhi,	Risk mitigation for EPCM Projects	Proceedings of CSCE General Conference, pp. GEN-064-1-8, Halifax, NS, Canada, 2014

7	A. Salah and O.	Quantitative and qualitative risk	2013 Joint IFSA World
	Moselhi	in EPCM projects using fuzzy	Congress and NAFIPS Annual
		set theory	Meeting (IFSA/NAFIPS),
			Edmonton, AB, 2013
8	O. Moselhi and A.	Fuzzy Sets-Based Contingency	ISARC 29th Proceedings,
	Salah	Estimation and Management	Eindhoven. 2012

## **Completed Research Projects**

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1	A. Salah, A. Robinson	Applications of Fuzzy Hybrid Techniques in Construction Industry	2017
2	A. Salah, O. Moselhi	Fuzzy Set-Based Contingency Estimating and Management	2015
3	A. Salah, O. Moselhi	Fuzzy Set-based Risk Management for Construction Projects	2012

#### **Current Researches**

#	Research Title	Name of Investigator(s)
1	Infrastructure Asset Management	A. Salah, A. Salman
2	Risk Management in Construction	A. Salah,
3	<b>Building Sustainability</b>	A. Salah,
4	Modular Construction	A. Salah, T. Salama
5	Fuzzy Logic Applications in Construction	A. Salah,
6	Soil Improvement Techniques and applications	A. Salah, A. Alnaim

## Teaching Activities

## Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Cost Estimating	CONEN 441	10 Lectures
2	Construction Safety and Protection	CONEN 531	10 Lectures
3	Planning, Scheduling and Control	CONEN 432	10 Lectures and 6 Labs
4	Engineering Economy	ENG 412	10 Lectures

#### Graduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Construction Processes	CONEN 601	10 Lectures
2	Decision Support Systems	CONEN 606	10 Lectures
3	Sustainable construction	CONEN 617	10 Lectures
4	Risk Management	CONEN 620	10 Lectures

#### **Brief Description of Undergraduate/Graduate Courses Taught: (Course Title – Code: Description**)

#### Cost Estimating (CONEN 441).

Description: This course will include the following subjects: quantity takeoff methods, conceptual estimating, estimating costs for construction material, labor, equipment, project overhead, markup and profit, unit costs, production rates, and pricing methods, balanced bid and budget preparation for projects as well as subcontract bid analysis and the overall bidding procedure.

Construction Safety and Protection (CONEN 531),

Description: Management safety and protection in the construction environment is the focus of this course. The basic elements for a safety and protection program for construction will be presented as well as the basic elements relevant to construction procedures

#### Planning Scheduling and Control (CONEN 432)

Description: This course introduces the planning and scheduling concepts and its application in construction industry. It also introduces various planning and scheduling techniques to plan and manage effectively the project resources including manpower, machinery, money and materials. It also introduces a set of monitoring and control techniques to evaluate and control the progress throughout the project duration.

Engineering Economy (ENG 412)

Description: this course introduces the concept of engineering economy and its application in engineering projects. This course introduces various concepts of the interest rate and the inflation and the time value of money. In this course, students learn various analysis techniques and approaches to evaluate the economic viability of engineering projects. It also introduces the concepts of depreciation and its application in engineering projects.

Construction Processes (CONEN 601),

Description: This course introduces the various types of processes, methods and systems used in construction projects. This course also introduces roles and activities of various project stakeholders and highlights the various types of communications. In this course, students learn how to develop method statements and management plan for each activity in construction project. Also, students learn how to deal with change orders, claims and disputes before and after commissioning of construction project.

Decision Support Systems (CONEN 606)

Description: This course aims to provide students with an overview of decision making and analysis process in a context of complex environments in construction practices. It covers modeling uncertainty, the methods and technologies used for decision analysis and making. The course covers the fundamentals of probability and simulation theory as well as the fundamental of decision-making process and its phases; gathering information, data analysis, application of decision-making tools to provide the students the ability to support their decision in a rational and systematic way. The course introduces various individual and group decision making tools and techniques such as; MAUT, AHP, ANP, TOPSIS etc.

Sustainable Construction (CONEN 617)

Description: Sustainability management course focuses on the sustainability performance of project/product and materials and its contribution in preserving the natural resources. This course will attempt to provide key content knowledge to bridge the science and the practice to apply and enhance the sustainability of an engineering project, product, service and/or material. The course introduces the various regulation and policies that dominate the application of sustainability management. The course provides the students with a various of assessment tools and management techniques that allow, respectively, the measurement and management of sustainability performance of an engineering project/product/service/material. Students will be exposed to a real-case study that link the sustainability management theory to real engineering discipline applications.

Risk Management (CONEN 620)

Description: Risk management course focuses on risk management theory and policies are interrelated to the practice in engineering industry. This course will attempt to provide key content knowledge to bridge the science and the practice to apply and enhance the risk management process on project, product, or service. The course provides the students with various tools and techniques for identification, assessment, mitigation, monitoring and control of different types of risks associated with projects. The course allows the students to apply the knowledge in risk management and the acquired tools and technique on real-case study or project to bridge between risk management theory and its applications in engineering industry

# Administrative Responsibilities, Committee and Community Service (Beginning with the most recent)

#### **Administrative Responsibilities**

#	From	To	Position	Organization
1	2017	Present	Head of Quality of	Imam Abdulrahman bin Faisal University –
			Examination and	College of Engineering
			Assessment Unit	

2	2017	Present	Representative of COE in the QAE executive committee	Imam Abdulrahman bin Faisal University
3	2017	2020	Head of Academic Programs Development Unit	Imam Abdulrahman bin Faisal University – College of Engineering
4	2017	2020	Member of the Academic Affairs Committee	Imam Abdulrahman bin Faisal University – College of Engineering, Civil and Construction Engineering Department

#### **Committee Membership**

#	From	To	Position	Organization
1	2020	Present	Member of	Imam Abdulrahman bin Faisal
			Community Service	University – College of Engineering,
			Committee	Civil and Construction Engineering
				Department
2	2017	2020	Member of Academic	Imam Abdulrahman bin Faisal
			Affairs Community	University - College of Engineering,
			Service Committee	Civil and Construction Engineering
				Department

#### **Volunteer Work**

#	From	To	Type of Volunteer	Organization
1	2016	2017	Assistance of post- graduate students Supervision	University of Alberta
2	2015	Present	Mentoring and advising researchers	Concordia University
3	2015	Present	Reviewer	Journal of Construction and Engineering Management – ASCE
4	2015	Present	Reviewer	Journal of Journal of Engineering, Construction and Architectural Management

#### Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

- 1 Programming Languages: C#, Visual Basic, MATLAB
- 2 Software and simulation: MATLAB, AutoCAD, Revit, Primavera, Microsoft Project, Robot Structural Analysis, STAAD, ETABS
- 3 Platforms: Windows, Linux, Macintosh

## Last Update

.....28../...06.../2021