### Resume

### SAHAR NAJEEB SULAIMAN KHARRUFA

### SUMMARY

- 1. PhD in Architecture from University of Bath, UK.
- 2. Professor of Architecture and coordinator of the MSc in Urban Design program in the Department of Architecture, Ajman University
- 3. Architectural Designer: Designed over 250 buildings in Iraq, Jordan, Libya, UAE and Kazakhistan.
- 4. Researcher: Published 34 papers on cooling loads in buildings, green buildings, and university campus design, many of them in High impact factor SCOPUS journals.
- 5. Technology oriented. In every one of my previous careers, I was chosen because of my knowledge of computers and architectural software.

### **EDUCATION**

- 1985 PhD from University of Bath, UK. Title of Thesis, "Utilization of student activities in the planning of universities and polytechnics".
- 1979 Msc in Architecture from University of Baghdad.
- 1976 BSc in Architecture from University of Baghdad.

### **WORK EXPERIENCE**

2007- present

### Professor and Associate Professor in University of Ajman, Department of Architecture

- 1. Coordinator of the MSc postgraduate program in the department of Architecture, Ajman University.
- 2. Teaching:
  - a. Undergraduate courses: sustainability, Urban Design, and Research methods. I also teach a large number of undergraduate courses including Architectural Design, Urban Design, Lighting, Active thermal, working drawing, history of architecture, Urban design, Graduation projects, and several other theoretical subjects.
  - b. Postgraduate: Teach Sustainability, Real estate, Research methods, Management of urban projects, and thesis supervision for the MSc program
- 3. Published 12 papers on sustainability, green buildings, and building cooling loads.
- 4. Member of Uniconsult design team. A consultancy bureau affiliated to Ajman University.
  - a. Design of university sports hall and swimming pool 2012
  - b. Supervision of Ajman Academy school 2012-2013
  - c. Designed and build the solar decathlon house 2016-2019
- 5. Member of team contracted to develop methods and systems to insulate existing buildings in Dubai.
- 6. Awarded rank of Professor, May 2014.
- 7. Leader of the Solar decathlon competition entry for Ajman University in the 2018 edition. Won two 1<sup>st</sup> prizes in Energy and construction. The house presently resides in the Ajman Campus.
- 8. Leader and participant in multiple CAA accreditation for the college, department, and the master's program including several employing the new 2019 rules. Also initial accreditation of the new architectural engineering program which is ABET compliant.

### 1991-2006

### Assistant and Associate Professor in University of Technology Baghdad.

- 1. Member of "Post-graduate Studies Committee" from 1993-2006.
- 2. Head of "Design Section" for undergraduate studies 2005-2006.
- 3. Head of Computer lab in Department 1992-2006.
- 4. Taught postgraduate courses on "Computers in Architecture", "Research methods" and "Advanced Architectural Design" since 1985 in both Universities of Baghdad and Technology.
- 5. Published 6 papers while in department mostly in the fields of environmental design, educational buildings, and beauty in architecture.
- 6. Supervised around 20 MSc students and one PhD.
- 7. Member of examining committee for 6 PhD students
- 8. Member of examining committee for around 50 MSc students.
- 9. Head of architectural design group for fifth grade for ten years, third grade three years, and fourth grade one time. This was for the period 1992-2006.
- 10. Head of Design Section for postgraduate studies 2002-2006.
- 11. Awarded rank of Associate Professor 1996.

### 2001-2006

### Founder, Partner and Technical chief of "CBuilding" Contracting Company.

- 1. Designed and supervised building of around 60 residential houses of various sized (300-3000m2 plot area). Also built three commercial buildings. Design of Rehabilitation for 35 schools in Anbar province. 2004-2005.
- 2. Design of rehabilitation for 29 Railway stations in Anbar Province. 2004.
- 3. Partial design of rehabilitation for Baghdad Central Railway station. 2004.
- 4. Design of Almaha Rice Factory in Baghdad for Almaha Distribution. Large 8000m2 facility in Jurf Alnadaf. 2005.

### 1985-1989

### Research officer in Building Research Center, Science Research Council.

- 1. Responsible for CAD lab, the first in Iraq.
- 2. Published 13 papers mainly on CAD and educational facilities.
- 3. Senior member of team to develop furniture standards for Iraqi schools.
- 4. Part time teaching of MSc students in University of Baghdad
- 5. Part time teaching of MSc Students in University of Technology
- 6. Supervised two MSc thesis

### 1988-2006

# Managing Director and Head of Architectural division in "Bureau of Contemporary Design", BCD. Leading Iraqi firm in Engineering Consulting and Computer applications in Engineering. Were first to introduce CAD on microcomputers in 1988 and later were the first to introduce photorealistic imaging of buildings by computer in 1992. Participated in almost every major engineering and building project in Iraq between 1991 and 1994. Main projects include:

- 1. Design of Brigaide size Housing city for Iraqi Army during army service with Corps of Iraqi Engineers, 10000 capacity with complete facilities and services. Includes schools, shopping recreation etc.1979.
- 2. Design of 200 large villas and houses between 1985-2007.
- 3. Design of 12 commercial buildings which include shopping stores on ground floor and offices on 2<sup>nd</sup> and 3rd in all parts of Iraq between 1988 and 2005.
- 4. Recreational center for "union of industrialists" in Baghdad 1989
- 5. Design of extension for Abdul-Majid Hussain Hospital in Karrada. Addition of 24 more beds and extra floor. 1999.
- 6. Participation in work on Saddam Grand mosque 1996 (20000 capacity).
- 7. Participation on work on "Alrahman" Grand mosque 1996 (10000 capacity).
- 8. Albasis tourist center in Libya on the Mediterranean. a city of 5000 tourists capacity which includes residential houses, apartments, and shaleighs for living quarters. Recreational facilities include golf course,

Olympic size swimming pool, water sport activities, racing track, and equestrian activities. services included multiple shopping facilities and several restaurants and cafes. Gas station, bus station, administrative compound and residence (1994-1996)

- 9. Design of two residential complexes for staff in Diala University, 2001.
- 10. Design of Industrial Pharmacy College for University of Mustansiriyah in 2001.
- 11. Design of 200 bed Maternity Hospital for submission as part of bid for construction to the Ministry of Health. 2001.
- 12. Design of master plan for Babel University for expansion from 10000 to 20000, 2002.
- 13. Design of Colleges of Physical Education in University of Babel, 2001.
- 14. Design of Department of Systems and Control in University of Technology. 2003.
- 15. Design of Department of Materials in University of Technology, 2002.
- 16. Design of Baghdad Olympic Stadium in Tadji area for Yiltas Contracting Co. in Turkey. 80000 capacity and 65% roofing and advanced media and spectator services. 2003.
- 17. Masterplan for University of Ramadi, 2006.
- 18. Masterplan for University of Fallujah, 2006.
- 19. Design of seven primary and secondary schools for the Ministry of Education in Iraq, financed by the World Bank, in Mosul, Amarah and Baghdad, 2006-2007.
- 20. Design of 20 bed maternity hospital in Fallujah, 2006.

### **SOFTWARE**

Software	Level
AutoCad	V Good
3DS MAX	Expert
AutoCAD Architecture (BIM)	V Good
Ecotect (Thermal and lighting simulation software)	V Good
Envi-Met (Urban Environmental simulation)	V Good
TestFit (AI real estate and urban design)	V Good
QGIS	Beginner
Manifold GIS	Beginner
Photoshop	V Good
Corel Draw (vector graphics similar to illustrator)	V Good
Microsoft office, Word, Excel, PowerPoint	Expert
Lumion rendering software	V Good

This list is rudimentary. I am familiar with many more software packages and am certain to learn quite a few more as technology develops.

### RESEARCH

Area of interest; cooling loads of buildings, sustainability, green buildings, healthy buildings. SCOPUS ID 55939165700

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### PUBLISHED PAPERS

#	TITLE	DATE		SCOPUS ranking	Language
34	A Study of Expiratory Droplet Dispersion and Deposition Density in an Enclosed Residential Space	23/7/2023	Buildings	Q1	English
33	The Impacts of Dialogue between Cities on Strategies and Plans for Urban Renewal: The case of Barcelona, Spain and Baghdad, Iraq	11/7/2023	Future Cities and Environment	Q1	English

32	The Building Stock in the City of Dubai: A Survey	19/11/202	Future Cities and	01	English
32		19/11/202	Environment	Q1	English
	Methodology	2	Environment		
31	The Effect of Urban Form on the Heat Island	28/7/2022	Energies	Q1	English
31	Phenomenon and Human Thermal Comfort: A	20/1/2022	Lifetgies	Q1	Liigiisii
	Comparative Study of UAE Residential Sites				
30	Effect of a Secondary Building Envelope on Cooling	1/6/2022	Journal of Architectural	Q1	English
50	Loads in Hot Climates	170/2022	Engineering	Q1	Linginsii
29	Evaluating an Active Low-Energy Cooling Upgrade	Dec 2021	International Journal of	Q1	English
	to the Building Envelope in the Hot Climates of the	Bee 2021	Low-Carbon	Ψ1	Lingingin
	Middle East		Technologies		
28	The impact of passive design strategies on cooling	Dec 2021	Case studies in thermal	Q1	English
	loads of buildings in temperate climate	200 2021	engineering	<b>V</b> .	Ziigiisii
27	A Review of Thermal Design for Buildings in Hot	Jan 2022	Pertanika Journal of	Q3	English
	Climates	0411 2022	Science &	¥.º	Ziigiisii
			Technology		
26	Environmental treatment of Greenhouse Design in	2012	UPA		English
	Iraq	2012			Ziigiisii
25	Academic study of AlQasim Green University	2012	UPA		English
24	Upgrading the Building Envelope to Reduce Cooling	2012	Building and Energy	Q1	English
	Loads		2		6 322
23	Reducing the Cooling Load by Evaporative Cooling	2009	Nova Publishers, edited		English
	of the Roof, pp. 235-255		book "Energy and		
			Buildings: Efficiency,		
			Air Quality, and		
			Conservation"		
22	Using Graphic Techniques to Develop Creativity in	2009	The Iraqi Journal of		Arabic
	Design		Architecture		
21	Analysis of virtual house to evaluate new low energy	2008	The Iraqi Journal of		Arabic
	cooling and heating systems		Architecture		
20	Evaluation of Basement's Thermal Performance in	2008	Journal of Asian	Q2	English
	Iraq for Summer Use		Architecture and		
			Building Engineering		
19	Roof pond cooling of buildings in hot arid climates	2008	Building and	Q1	English
			Environment		
18	Reduction of building waste in Baghdad Iraq	2007	Building and	Q1	English
			Environment		
17	Aesthetic measurements in architecture	2002	Journal of Iraqi		Arabic
			Architecture		
16	Use of a spatial building database in CAAD	1994	Journal of University of		English
	programs		Technology		
15	Calculating the spatial needs for non-scheduled	1995	Journal of University of		Arabic
	activities in Iraqi universities and polytechnics		Technology		
14	Class allocation time in Iraqi universities	1994	Journal of University of		English
			Technology		
13	Design of street furniture in urban spaces	1989	5 <sup>th</sup> Conference of		Arabic
			Science Research		
			Council, Iraq		
12	The area allocated to circulation and structural	1989	5 <sup>th</sup> Conference of		Arabic
	elements in buildings		Science Research		
		1	Council, Iraq		
11	Effect of structural grid on area of functional spaces	1989	5 <sup>th</sup> Conference of		Arabic
			Science Research		
		105	Council, Iraq		
10	Design of reading spaces in universities	1989	Building Research		Arabic
		1	Centre Journal		
9	Standard dimensions of furniture in Iraqi high	1988	National Centre for		Arabic
	schools		Engineering Consultants		

8	Standard dimensions of furniture in Iraqi primary schools	1988	National Centre for Engineering Consultants		Arabic
7	Anthropological dimensions of high school students in Iraq	1988	Building Research Centre Journal		Arabic
6	Scientific research in Iraqi universities	1988	6 <sup>th</sup> Scientific Conference of University of Mosul		Arabic
5	Non scheduled student activities in Iraqi universities and polytechnics	1988	Building Research Centre Journal		Arabic
4	Developing CAD techniques for preliminary architectural design	1988	CAD Butterworth's (presently Elsevier)	Q1	English
3	Employment of computers in Iraqi universities	1987	5 th Scientific Conference of University of Mosul		Arabic
2	Anthropological dimensions of primary school students in Iraq	1987	National Centre for Engineering Consultants		Arabic
1	The actual capacity of free use spaces in universities	1986	4 <sup>th</sup> Conference of Science Research Council, Iraq		English

### References

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Riad Saraiji	Dean, Ajman	r.saraiji@ajman.ac.ae	00971508798970
	University		
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	Ajman University		
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	Sharjah University		
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### Teaching and Sample Design and Imaging Portfolio

Sahar Najeeb Kharrufa

### Teaching portfolio, courses taught

## Undergraduate

- Architectural Design from design II to VI
- Graduation I and II
- Urban Design
- CAD 2D AutoCAD
- CAD 3D 3DS MAX
- Housing
- Building services
- Lighting Working Drawing I and II
- Building Construction
- History of Architecture
- Landscape Architecture
- Photography
- Freehand drawing and perspective
- Architectural Practice

### Postgraduate

- Sustainability in Urban design
- Urban Design Studio
- Project management
- Real Estate
- Computer applications in architecture
- Research methods
- Thesis supervision

## Sample Design and Imaging Portfolio

These are a few of my more recent designs and 3D images. All the renderings were created by me using 3DS MAX and mental ray as the retendering engine although I prefer Lumion these days. The architectural drawings were on AutoCAD

Adnan Mosque, 1994, Baghdad. This was the first project in Iraq to be built using AutoCad 3D.







Baghdad Olympic Stadium 2002

### SPOT PERSPECTIVE



SPOT PERSPECTIVE



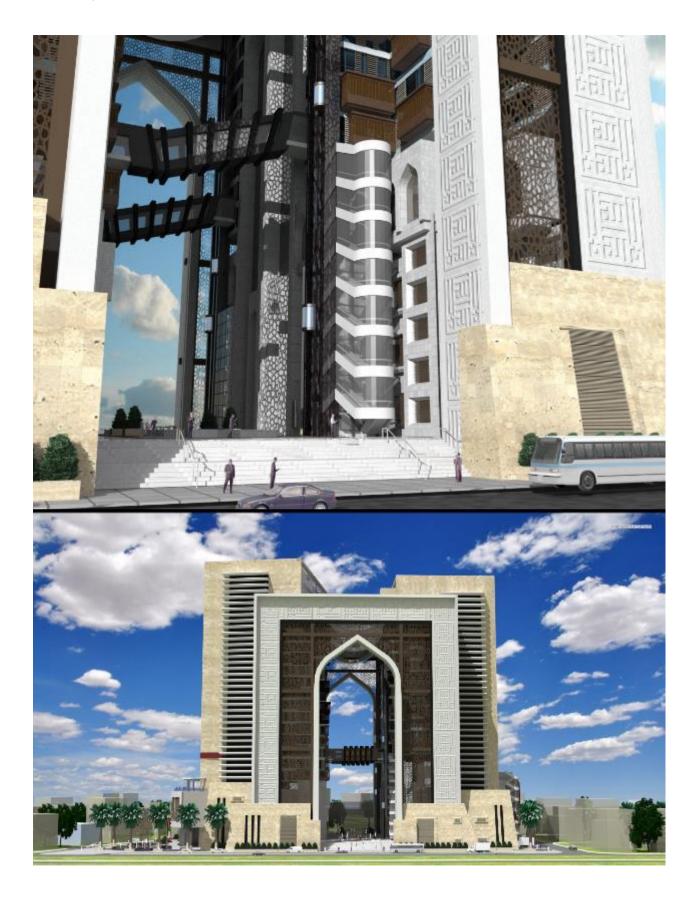
مكتب الدكتور سهر خروفة

Auditorium 2000 seats Baghdad

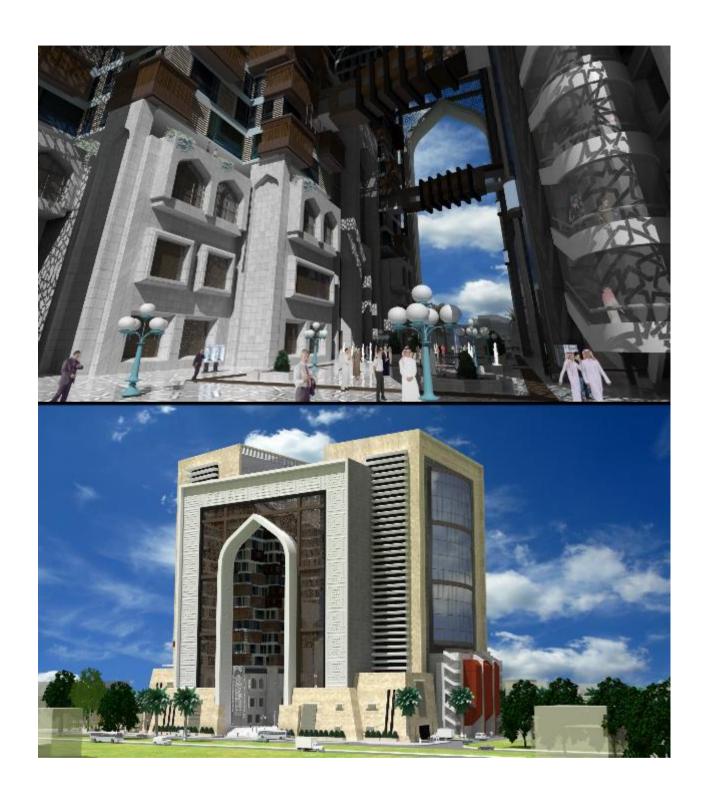




Cultural Center, Kut



Mixed Use Building Baghdad



Mixed Use Building Baghdad





Solar Decathlon Competition 2018

## Sample Painting Portfolio

The paintings are digitally drawn using Corel painter and Rebelle 5.







