

The Personal Mission Statement

"I am bridging the gap between high-level AI research and ground-level humanitarian recovery. By applying the **Bees Algorithm**—a metaphor for collective intelligence and resilience—to the **\$2.8 billion Syria 2026 Appeal**, I am transforming 'hope' into a quantifiable delivery strategy. My mission is to ensure that every resource reaches those in need with maximum efficiency, supported by a triangular partnership between **Damascus University, Cardiff University, and the UN.**"

CV Executive Summary

- **The Expertise:** PhD from Cardiff specialising in the Bees Algorithm (BA) for multi-objective optimisation.
- **The Field Application:** Active in Syria since 05/08/2025. Applying BA to school rehabilitation in Aleppo and resource mapping for the 2026 HRP.
- **The Goal:** Validating field-collected "noisy" data against Cardiff's computational benchmarks to create a scalable model for the UN's \$33B global appeal.

> PERSONAL DATA:

Name:		Academic Rank			
Sameh Otri		<i>B.Sc.</i>	<i>Eng.</i>	<i>M.Sc.</i>	Ph.D.
Contact details:					
Work		Mobile			
Cardiff and Vale College UK – Wales – Cardiff		+44 (0)7951 724 422 (What's app)			
Lecturer @ Computer and Automation Engineering Department – Electrical and Mechanical Engineering – Damascus University		+963 (0)980507771 (What's app / calls)			
Academic Coordinator at Aleppo University		Email: Drs.otri@gmail.com			

Nationality:	British / Syrian
Languages:	English / Arabic
LinkedIn link:	https://abrv.in/g1sQ
Google Scholar:	https://abrv.in/c0m2
ResearchGate:	https://www.researchgate.net/profile/Sameh-Otri?ev=hdr_xprf

> EDUCATION:

Year	2024
Institution Name:	City & Guilds / Cardiff and Vale College
Institution Location:	Gov. UK
Department:	Ofqual Regulated

Specialisation:	Certificate of Unit Credit Towards Level 3 Certificate in Assessing Vocational Achievement
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Year	2023
Institution Name:	City & Guilds / Cardiff and Vale College
Institution Location:	Gov. UK
Department:	Engineering
Specialisation:	Level 2 Award in Sustainability and the Green Environment

Year	2021
Institution Name:	South Wales University / Cardiff and Vale College
Institution Location:	Wales, UK
Department:	School of Education
Specialisation:	Professional Graduate Certificate in Education PcET

Year	2018
Institution Name:	Cardiff Metropolitan university
Institution Location:	Cardiff, Wales, UK
Department:	Cardiff School of Education
Specialisation:	Preparing to Teach in Post Compulsory Education and Training

Degree	Ph. D.
Year	2011
Institution Name:	Cardiff university
Institution Location:	Cardiff, Wales, UK
Department:	Manufacturing Engineering
Thesis Title (if any):	Improving the Bees Algorithm for Complex Optimisation Problems

Degree	M. Sc.
Year	2002

Institution Name:	Cardiff university
Institution Location:	Cardiff, Wales, UK
College / Faculty:	Mechanical Engineering
Department:	Systems Engineering
Thesis Title (if any):	Modelling and Control of BOM Robots using WEBOTS Simulator Software

Degree	Higher Diploma
Year	1998
Institution Name:	Aleppo University
Institution Location:	Aleppo, Syria
College / Faculty:	Electrical and Electronics Engineering
Department:	Communication Engineering
Thesis Title (if any):	Study & Design CCTV System with 6 Cameras

Degree	B. Sc.
Year	1996
Institution Name:	Aleppo University
Institution Location:	Aleppo, Syria
College / Faculty:	Electrical and Electronics Engineering
Department:	Electronic Engineering
Thesis Title (if any):	Design and Programming of IPROM Using Assembly Language

➤ **EMPLOYMENT HISTORY:**

Academic Experience						
Institution (Place of Work)	Department	Title	Period		FT / PT	Nature of Work
			From (Year)	To (Year)		
Electrical and Mechanical Engineering – Damascus	Computer Engineering and Automation	Lecturer	2025	Present	FT	Teaching / Research / supervision

University						
Cardiff and Vale College (Barry)	Engineering	Engineering Lecturer	Nov 2022	Present	FT	Teaching
Cardiff and Vale College (ICAT)	Engineering	Engineering Lecturer	Sep 2018	Oct 2022	FT	Teaching
ITN Mark Education / UK	Schools and HE	Learner Support Worker	2017	2018	FT	Supervision / Teaching
Qassim Univ. / KSA	Computer Eng.	Assistant Professor / Faculty	2013	2017	FT	Teaching
Cardiff Univ. / UK	Social Science	Social Science	2010	2013	FT	Research
Cardiff Univ. / UK	Systems Eng.	Teaching Assistant	2002	2005	FT	Teaching
Damascus Univ. / Syria	Computer Eng.	Teaching Assistant	1998	2000	FT	Teaching
Aleppo Univ. / Syria	Electrical Eng.	Teaching Assistant	1996	1998	FT	Teaching

> CURRENT MEMBERSHIP IN PROFESSIONAL ORGANISATIONS:

Position	Description	Period	
		From	To
Visiting Scholar	Centre for Artificial Intelligence, Robotics and Human-Machine Systems - Cardiff University, UK.	2026	Present
Academic Coordinator	Academic Coordinator at Aleppo University - Syria	2025	Present
Academic Coordinator	Academic Coordinator at Maaref University of Applied Sciences	2025	Present
Judge Panel Member	Innovation Nation – Syria	2026	Present
Management Board member	Advisory Board - Centre for the Study of Islam in the UK - Cardiff University – UK	2020	Present
Active member	Saudi Internet Scientific Society, KAS	2016	2018
Guest Editor	Neural Computing and Applications	2011	2023
Reviewer	The Cogent Engineering Journal, UK	2013	2018
Member	Syrian Internet Scientific Society, Damascus, Syria	1998	2016
Chair	Artificial Intelligence Session of Virtual Conference	2005	2010

> COURSES TAUGHT:

Course Title	Year
Supercomputing – MSc students	2026
OOP Using C++	2026
OOP Using Java	2026
Expert Systems	2026
Software Engineering	2026
Web 1 Programming	2025
C# Programming	2025
Software Testing	2025
Project Management	2025
Computer Peripherals	2025
Practical Controllers	2023/24

Further Mathematics	2023/24
Analogue Electronics	2023/24
Further Electrical & Electronic Principles	2023/24
Electrical & Electronics Systems and Devices	2023/24
Industrial Robotics	2022/23
Electronic Fault Finding	2022/23
Robotics and Automation	2022/23
Further Mathematics for Technicians	2021/22
Engineering Mathematic	2021/22
Mathematics and Science Principles	2021/22
Engineering Design, Quality and Manufacturing	2021/23
Mechanical and Electrical Principles	2021/22
Mechatronics / Robotics	2020/22
Research Project	2020/ 21
Professional Engineering Management	2020/21
Engineering Science	2019/20
Aircraft Engineering – Level 6 – Kingston University	2019/20
Electrical and Electronics Engineering	2019/20
Auto Flight Control Systems	2018/19
Aircraft Systems	2018/19
Artificial Systems and Robotics	2015/17
Signals and Systems Analysis	2013/17
Digital Signal Processing	2014/15
Logic Design	2013/14
Object Oriented Programming and UML – Cardiff University	Fall 2006
Signal Processing using MATLAB in laboratories – Cardiff University	Fall 2005

Description	Year
Best Project supervision	2016
2 nd Best Project supervision	2014
Best Project supervision	2013
1st prize poster in Integr8or Doctoral Conference, Nottingham University, UK	2008
1st prize poster in the Graduate School of Physical Sciences and Eng., Cardiff, UK	2006
Prize for best paper by a young researcher IPROMS Virtual Conference, UK	2006
British Chevening Scholarship to Study MSc, UK	2001

➤ **NON-ACADEMIC EXPERIENCE & COMMUNITY ACTIVITIES**

Company or Entity (Place of Work)	Title / Brief Description	Year
Centre for the Study of Islam in the UK	Management Board Member	2024 – present
AFC Llanedeyrn	A coach	2023- present
University South Wales Chaplaincy	Friday Prayer Leader	2021- present
Roath Park Primary School	Community Governor	2021 – present
CoC, Qassim University	Coordinator of Innovative Incubator Centre: Support innovative ideas and works initiated by students and staff	2014-2017
CoC, Qassim University	CoC Students' Club administrator: Mange and supervise the non-class students activities	2014-2017
Qassim University	Raspberry PI workshop : Organise a workshop to 15 near-graduate students on Raspberry PI	2016
Qassim University	Final Project Fair: Organise the Project Fair of the Final year student for the College of Computer	2016
Qassim University	Gulf Programming Contest (GPC) steering Committee Member : Organise the Contest on the Gulf level	2015

CURRICULUM VITAE**S Otri**

Qassim University	ABET Committee Reviewer: Review the work of submitting the Self-Study Report for CEN program by ABET	2013-2017
CoC, Qassim University	Sports Coordinator: Coordinate students/staff sports	2013

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PUBLICATIONS:

Publications			
Title	Authors	Location	Year
Printed Circuit Board Assembly Time Minimisation Using A Novel Bees Algorithm	Sameh Otri, Marco Castellani, Duc Truong Pham	Journal of Mechanical Engineering Science	2019
Image Processing Based Computational Tools for Assisting and Assessing Memorization and Learning Tasks	Mohammad Tanvir Parvez , Sameh Otri	I.J. Education and Management Engineering	2017
Religious nurture in British Muslim families: implications for social work	Scourfield, Bryn, Warden, Rosalind, Gilliat-Ray, and Otri	International Social Work 56 (3), pp. 326- 342	2013
Muslim childhood: religious nurture in a European context	Scourfield, Bryn, Gilliat Ray, and Otri	Oxford: Oxford University Press	2013
Reflections on qualitative research with Muslim families	Khan, Asma, Scourfield, Jonathan, Gilliat-Ray, Sophie and Otri, Sameh	Fieldwork in Religion 7 (1), pp. 48- 69	2012
Optimal design of mechanical components using the Bees algorithm	D T Pham, A Ghanbarzadeh, S Otri and E Koç	Proceedings of Institution of Mechanical Engineers, Part C, Volume 223, , pp 1051-1056, ISSN 0954 4062	2009
Some applications of the bees algorithm in engineering design and manufacture	Pham, DT; Soroka, AJ; Koc, E; Ghanbarzadeh, A; Otri, S	Proceedings of international conference on manufacturing automation (ICMA 2007), Singapore	2007

Presentations		
Title	Location	Year
The Bees Algorithm: Introduction and Principles	Aleppo University	2025
AI for Academics	Damascus University	2025
AI for Engineers	Damascus University	2025
AI for English Teachers	Damascus University	2025
Modern Engineering Tools and Practices Used in Engineering Design	Final Year Project Students, CoC, QU	2017
Bees Algorithm – a novel Approach	Qassim University	2016

> PROFESSIONAL DEVELOPMENT ACTIVITIES:

Description	Year
Academic Coordination (Syria / UK)	2025
AI and Robotics Club and Lab	2025
Training Assessment and Quality Assurance (TAQA) – Assessor	2023
Robotics World Skills Competitions	2023
Industry 4.0 in Practice	2022
Simulation and Digital Twinning	2022
Collaborative Universal Robots Core Training	2022
Robotics and Automation Operations and Fault Diagnosis for Maintainers	2022
Second Life as a Teaching Platform for Engineering	2021
PGCE – Year 2	2021
Agored Training Introduction to Assessment	2021
AutoCAD Essentials	2020
PGCE – Year 1	2020
Preparing to Teach in Post Compulsory Education	2018
Blackboard workshop – level 1 & 2 – KSA	2016
Organising and attending the Gulf Programming Contest – American University of Dubai – UAE	2015

Conference on New Skills in Teaching, Birmingham university – UK	2014
4MAT workshop – QU – KSA	2014
Learning Outcomes, Qassim University – KSA	2013

➤ **PROJECTS SUPERVISED:**

Projects Titles	Year
Autonomous Biometric Sentry	2025
Navigation Robots	2025
Distributing and sterilising clothes	2025
Smart Cooking Assistant	2025
Talent prediction in children	2025
ELEGOO Smart Robot Car Control and Program	2023
DJI Tello Drones' Control and Program	2023
Robot Car Controlled by keyboard	2023
Power Supply Unit	2023
Animatronic Hand	2022
Hexapod Robot	2022
The Pod – Airport Lounge for People with Hidden Disabilities	2020
Tactile and Visual Feedback for Hand Tools	2020
Novel Guidance System for an Unmanned Aerial Vehicle	2020
Line Tracking and Color Detection Robot Using Arduino	2017
Child Safety Device Using Raspberry PI	2017
Pioneer Mobile Robot: Gripper Programming and Operation	2016
Obstacle Avoidance and Home Guidance Using Arduino	2015
ROS-Based Mapping Localisation and Autonomous Navigation Using Pioneer 3-DX Mobile Robot and the Xbox Kinect Optical Sensor	2015
Dynamic System for Electronic Medicine Supplier Using RFID	2015

Develop an e-Service: Driver and Vehicle Licensing Agency of the Kingdom of Saudi Arabia (DVLA KSA) Using Android Based Embedded System	2015
Design an Electronic Driver and Vehicle Licensing Agency System (DVLA - KSA)	2014
A Location Based Algorithm for Determining Handoff in Heterogeneous Wireless Network	2013