



Contact Information



<https://sites.google.com/view/taifalawsi/home>



taif.alawsi@outlook.com



taif.alawsi@alayen.edu.iq



+9647714292625



+9647801414092

Lec. Dr. Taif Alawsi

Instructor, Manager, Researcher, Author, Engineer, Reviewer, and Editor

Biography

He was born in Baghdad, Iraq, in 1992. He received the B.Sc. degree and the M.Sc. degree in Laser and Optoelectronics Engineering from Al Nahrain University, Baghdad, Iraq, in 2013, and 2017, respectively. He received his Ph.D. in Laser Applications / Electronic and Communication Engineering from the University of Baghdad, Baghdad, Iraq, in 2021. From 2019-2021 he was a Ph.D. Researcher at La Sapienza University of Rome, Department of Information Engineering, Electronics and Telecommunications, Rome, Italy. Currently, he is the dean's assistant for administrative affairs at Technical Engineering College, Al-Ayen University, Thi-Qar, Iraq. His work experience is in the fields of Communication and Telecommunication Systems, Medical Instrumentation, and Laboratory Equipment. His publications include 6 Research articles, 2 Review articles, and a Book. He had numerous scientific activities such as workshops, presentations, online classes, conferences, and webinars. He is a certified reviewer for WOS and Scopus indexed journals with 134 reviews for 29 Journals. He is a member in IEEE, IEEE Photonics Society, American Chemical Society (ACS), Optical Society of America (OSA), Italian Society of Optics and Photonics (SIOF). He received the Google Certified Educator: Level 1. He is currently the managing editor of the Iraqi Journal of Embryos and Infertility Researches (IJEIR) and an editorial member in the American Journal of Science, Engineering and Technology (AJSET) and Journal of Applied Sciences and Nanotechnology (JASN). His current work includes smartphone sensors for medical applications. His research interests include Optics, Lasers, Photonics, Solar cells, Graphene, Smartphone Sensors, and Image Processing.



CURRENT POSITIONS

Current Position	Al-Ayen University, Technical Engineering College
Jan 2022 – Current	Dean's assistant for administrative affairs at Technical Engineering College
Current Position	American Journal of Science, Engineering and Technology (AJSET)
Apr 2020 – Current	Editorial Member
Current Position	Journal of Applied Sciences and Nanotechnology (JASN)
Mar 2022 –Current	Editorial Member
Current Position	Al Nahrain University, The High Institute for Infertility Diagnosis and Assisted Reproductive Techniques
MAR 2019 – Current	Editorial Manager Iraqi Journal of Embryos and Infertility Researches (IJEIR)

EDUCATION

NOV 2019 – Jul 2021	Sapienza University of Rome, Information Engineering, Electronics and Telecommunications
	Ph.D. Researcher: working on my Ph.D. Thesis and Studying 1. Mobile Application and Cloud Computing 2. Smart Environments
SEP 2017 – JUL 2021	University of Baghdad, Institute of Laser for Postgraduate Studies
	Ph.D. in Laser Applications / Electronic and Communication Engineering Thesis: " Design and Performance Investigation of Smartphone Based Colorimetric Sensor, " 2021.
SEP 2014 – MAY 2017	Al Nahrain University, College of Engineering
	M.Sc. in Laser and Optoelectronics Engineering, 2017. Thesis: " Design and Performance Investigation of Graphene-Based Optical Modulator, " 2017.
SEP 2009 – JUL 2013	Al Nahrain University, College of Engineering
	B.Sc. in Laser and Optoelectronics Engineering, 2013. B.Sc. Project: " Infrared Laser Vibration Sensor, " 2013.

AWARDS & GRANTS

Grant	MAECI Grants- Study in Italy
Jan. 2020 – Jul. 2021	Ph.D. Researcher: Sapienza University of Rome Department of Information Engineering, Electronics, and Telecommunications
GRANT NUMBER: 1601461393	The Italian ministry of foreign affairs (Ministero degli Affari Esteri e della Cooperazione Internazionale (Rome, Lazio))



PUBLICATIONS

BOOKS

Taif Aied Faisal, "Design and Performance Investigation of Graphene-Based Modulator," LAP LAMBERT Academic Publishing, Germany, 2017, ISBN: 978-620-2-01367-3.

JOURNAL PUBLICATIONS

1. Indrajit Patra, Ahmed M. Abdulhadi, Fatima Safaa Fahim, Bashar S. Bashar, **Taif AlawsI**, Mohammad Salmani, **The Effects of Temperature and Impact Velocity on the Shock Wave Response of Pore-Embedded Metallic Glasses**, *Advances in Materials Science and Engineering*, 2022, <https://doi.org/10.1155/2022/6111294>
2. Usama S. Altimari, Rosario Mireya Romero Parra, Ngakan Ketut Acwin, Ali Majdi, Mustafa M. Kadhim, **Taif AlawsI**, et al., **Computational study of the effect of Fe-doping on the sensing characteristics of BC3 nano-sheet toward sulfur trioxide**, *Computational and Theoretical Chemistry*, 2022, 113805, <https://doi.org/10.1016/j.comptc.2022.113805>
3. Jasim, S.A., Patra, I., Abdulhadi, A.M. Al-Gazally, M.E. Sharma, H. AlawsI, T. et al. **Magnetic CeO₂/SrFe₂O₁₉ Nanocomposite: Synthesis, Characterization and Photocatalytic Degradation of Methyl Orange**. *Arab J Sci Eng* (2022). <https://doi.org/10.1007/s13369-022-07044-5>
4. Haider, A.J., AlawsI, T., Haider, M.J. et al. **A comprehensive review on pulsed laser deposition technique to effective nanostructure production: trends and challenges**. *Opt Quant Electron* 54, 488 (2022). <https://doi.org/10.1007/s11082-022-03786-6>
5. T. AlawsI, G. P. Mattia, Z. Al-Bawi, and R. Beraldi, "Smartphone-Based Colorimetric Sensor Application for Measuring Biochemical Material Concentration," *Sens. & Bio-Sens. Res.* vol. 32, no. 2, pp. 1-9. 2021. DOI: <https://doi.org/10.1016/j.sbsr.2021.100404>
6. Hasn Mahmood Khudair, **Taif AlawsI**, Anwaar A. Aldergazly, and A. H. Majeed, "Design and Implementation of Aerial Vehicle Remote Sensing and Surveillance System, Dehazing Technique Using Modified Dark Channel Prior," *Advances in Science Technology and Engineering Systems Journal* 5(5):1111-1117, 2020. DOI: <https://doi.org/10.25046/aj0505135>
7. T. AlawsI, and Z. Al-Bawi, "A review of smartphone point-of-care adapter design," *Engineering Reports*, vol. 1, no. 2, Sep. 2019.;e12039. DOI: <https://doi.org/10.1002/eng2.12039>
8. Taif Aied Faisal, and Raad Sami Fyath, "Design and Performance Investigation of Graphene-Based Modulators for 1550 and 1310 nm Optical Communication Wavelengths," *International Journal of Science and Engineering Investigations (IJSEI)*, Vol.6, Issue 61, Pp. '153-166', 2017. ISSN: 2251-8843.
9. AlawsI, Taif A F. "Design and Implementation of Audio Transceiver Using Infrared Laser for Audio Signal Detection." OSF, 30 Sept. 2018. Web.



TECHNICAL REPORTS

1. Taif Alaws: *Overview of He-Ne Laser.*
2. Taif Alaws: *Wave Plate.*
3. Taif Alaws: *Design and Performance Investigation of Graphene-Based Optical Modulator Report #1: Conductivity of Graphene: Theory and Experiment.*

POSTERS

1. Positron Emission Tomography (PET)
2. Dental Laser Device
3. Gas Chromatograph (GC)
4. Nuclear Magnetic Resonance Spectroscopy (NMR)
5. Design and Implementation of Portable Electrocardiograph
6. Digital X-Ray System
7. Design and Experimental Verification of Oximeter Sensor for Real-Time Heart-Rate Monitoring
8. Optical Coherence Tomography (OCT)
9. Design and Implementation of Radar Control with Arduino Circuit
10. Design and Implementation of an LED Memory Game
11. Design and Implementation of Real-Time Temperature and Humidity Sensor
12. functional Magnetic Resonance Imaging (fMRI)
13. Spectrophotometer
14. Magnetic Resonance Imaging (MRI)
15. Design and Implementation of Alarm System for Security and Surveillance Applications
16. Design and Implementation of Car Parking Alarm System
17. Laser-Assisted in Situ Keratomileusis (LASIK)
18. Ventilator
19. Design and Implementation of Smart Stick for Visually Impaired People
20. Algorithms
21. Compilers
22. Operating System (OS)

WORK EXPERIENCE

ALARABIYA ISLAMIC BANK Programs Developer and Graphic Designer.

AL NAHRAIN UNIVERSITY, COLLEGE OF ENGINEERING, LASER AND OPTOELECTRONICS DEPARTMENT Asst. Lecturer: Control Systems, Fourier Optics.

AL MOUYASSER COMPANY Maintenance Engineer.

FAYDH AL NAB'E'A CO. FOR TRADING SCIENTIFIC INSTRUMENTS Engineer – sales manager.

AL ALEEM INSTITUTE FOR TEACHING COMPUTERS & LANGUAGES Lecturer.

EARTHLINK TELECOMMUNICATION COMPANY Telecommunications Engineer.

DUHA-BAGHDAD MEDICAL DEVICES COMPANY Maintenance Engineer.



REVIEW EXPERIENCE

◆ A reviewer in:

1. [IEEE Photonics Journal \(IEEE\)](#) Sep. 2017
2. [IET Microwaves, Antennas & Propagation \(Wiley, IET, IEEE\)](#) Apr. 2019
3. [Advances in Science, Technology and Engineering Systems Journal \(ASTESJ\)](#) Jun. 2019
4. [Micro & Nano Letters \(Wiley, IET, IEEE\)](#) Jul. 2019
5. [Electronics Letters \(Wiley, IET, IEEE\)](#) Aug. 2019
6. [Optical Engineering \(SPIE\)](#) Nov. 2019
7. [Applied Optics \(OSA\)](#) Dec. 2019
8. [Optics Letters \(OSA\)](#) May 2020
9. [ACS Applied Electronic Materials \(ACS\)](#) Nov. 2020
10. [Nanotechnology \(IOP\)](#) Nov. 2020
11. [Journal of Physics: D Applied Physics \(IOP\)](#) Dec. 2020
12. [Optics Express \(OSA\)](#) Dec. 2020
13. [Machine Learning: Science and Technology \(IOP\)](#) Feb 2021
14. [ACS Applied Materials and Interfaces \(ACS\)](#) Apr. 2021
15. [Journal of Physics Communications \(IOP\)](#) Apr. 2021
16. [ACS Omega \(ACS\)](#) Apr. 2021
17. [Journal of the European Optical Society-Rapid Publications \(Springer\)](#) May 2021
18. [Photonics and Nanostructures - Fundamentals and Applications \(Elsevier\)](#) Jun. 2021
19. [Journal of Optics \(IOP\)](#) Aug. 2021
20. [Biosensors and Bioelectronics \(Elsevier\)](#) Sep. 2021
21. [Photonics Research \(OSA\)](#) Sep. 2021
22. [Engineering Research Express \(IOP\)](#) Oct. 2021
23. [Analytical Chemistry \(ACS\)](#) Oct. 2021
24. [Academia Letters \(Academia\)](#) Nov. 2021
25. [Journal of Nanophotonics \(SPIE\)](#) Dec. 2021
26. [Nano Express \(IOP\)](#) Jan. 2022
27. [IET Image Processing \(IET\)](#) Feb 2022
28. [Journal of Applied Sciences and Nanotechnology \(JASN\)](#) Mar 2022
29. [Applied Physics Letters \(AIP\)](#) May 2022

◆ Publons Excellent Reviewer Badge

◆ Publons Academy Graduate Oct. 2018

◆ Elsevier Publishing Campus - Certificates of Completion 2017-2020

EDITORIAL BOARD MEMBERSHIPS

1. Iraqi Journal of Embryos and Infertility Researches (IJEIR) Mar. 2019
2. American Journal of Science, Engineering and Technology (AJSET) May 2020
3. Journal of Applied Sciences and Nanotechnology (JASN) Mar 2022



SKILLS & ACTIVITIES

KEYWORDS AND RESEARCH INTERESTS

Photonics; Lasers; Optics; Optoelectronics; Image Processing; Simulation; Smartphone Sensors; Colorimetric Analysis; Android Application; Smart Sensors; Solar Cells; Graphene Electronics; Quantum Optics; Dark Channel Prior Algorithm; Dehazing; UAV Surveillance; 3D printing; Microscopy; Point-of-Care Diagnostics; FDTD; FEM; Fluorescence; Biomedical Imaging; Remote Sensing; Fiber Optics; Fiber Laser; Machine learning; Antenna Design; Plasmonics; Colorimetry; Photometry; Spectrometry; Nanotechnology; Internet of things; ESP32; Audio Sensors; Temperature and Humidity Sensors; Image Recognition; Guided Wave Optics; Waveguides; Optical Modulators; Lab-on-Chip; Hardware Design, Remote Sensing.

LANGUAGES RESEARCH SKILLS ACADEMIC FIELDS

Arabic, English
Academic, Research Paper, and Projects Writing.
Engineering; Physics; Multidisciplinary Research; Computer Engineering; Laser Engineering; Optics Engineering; Optoelectronics Engineering; Photonics; Electronics Engineering; Communication Engineering; Biomedical Engineering; Electrical Engineering

SOFTWARE

Microsoft Visual Studio; Visual Basic; Comsol Multiphysics; Lumerical FDTD; MATLAB; Winbox; Multisim; Microsoft Office; G-Suite for Education; SolidWorks; Android Studio; CST; OptiWave; Cura; Arduino IDE.

MEMBERSHIPS

IEEE Member 96121414 
IEEE Photonics Society Member 
American Chemical Society Member 31814260 
Optical Society of America Member 1325052 
Italian Society of Optics and Photonics Student Member 
Iraqi Engineers Union Member 167368 

SCIENTIFIC IDS

[ORCID](#), [Google Scholar](#), [Research Gate](#), [Publons](#), [Academia](#), [Scopus Author ID](#), [Microsoft Academic](#).

ACKNOWLEDGMENTS

High Institute of Fertility Diagnosis and ART's, Dean's Office.

APPRECIATION LETTERS










Technical Engineering College Dean, Al-Ayen University, 08-May-2022
Al-Ayen University President, 06-Mar-2022
Dean's Office, High Institute of Fertility Diagnosis and ART's, Al Nahrain University, 4 Mar. 2019.
Al Nahrain University President Scientific Affair Associate Office, 23 Dec. 2018.

TEACHING CERTIFICATES TEACHING COURSES

Teaching Validity Test, Al Nahrain University, 14 Oct. 2021
Teaching Methods, Al Nahrain University, 6 Oct. 2021
Electrical Engineering Principles (1st stage- Medical Instrumentation Technical Engineering, Al-Ayen University
Electrical Engineering Fundamentals (1st stage- Computer Technical Engineering, Al-Ayen University



REFERENCES

Raad Sami Fyath	M.Sc. Thesis Supervisor	Al Nahrain University, Department of Computer Engineering.		rsfyath@yahoo.com
Ula Al-Kawaz	Dean of the Institute	The High Institute for Infertility Diagnosis and Assisted Reproductive Techniques.		ulamhm@googlemail.com
Anwaar Al-Dergazely	Head of Department	Al Nahrain University, Department of Laser and Optoelectronics Engineering.		aldergazly@gmail.com
Fatema Hamid Rajab	First secretary of Department	Al Nahrain University, Department of Laser and Optoelectronics Engineering.		fatema.rajab@eng.nahrainuniv.edu.iq
Zainab Fadhil Mahdi	Ph.D. Thesis Supervisor, Courses Instructor	University of Baghdad / Institute of Laser for Postgraduate Studies		Zainab@ilps.uobaghdad.edu.iq
Mohamed T. Ghoneim	Intel Corporation	Media Lab, Massachusetts Institute of Technology		mohamed.t.ghoneim@gmail.com
Dror Fixler	Associate Editor	IEEE Photonics Journal		dror.fixler@biu.ac.il
Francesco P. Andriulli	Associate Editor	IET Microwaves, Antennas & Propagation		francesco.andriulli@imt-atlantique.fr
Wang Xiu Ying	Associate Editor	Advances in Science, Technology and Engineering Systems Journal.		wangxiuying@ieee.org
Roberto Beraldi	Ph.D. Courses Instructor/supervisor	Information Engineering, "La Sapienza" University of Rome.		beraldi@diag.uniroma1.it
Francesca Cuomo	Ph.D. Courses Instructor/supervisor	Electronics and Communication Engineering, "La Sapienza" University of Rome.		francesca.cuomo@uniroma1.it
Rafid Sagban	Dean of Technical Engineering College	Al-Ayen University		rsagban@alayen.edu.iq

WORKSHOPS (LECTURER)

X-Ray Fundamentals

Workshop, Al-Ayen University, 2022-Jul-19-28

Submission of an article to the Journal: Practical Approach

Workshop, Al-Ayen University, 2022-Apr-27

Everything you need to know about Publons: Practical Workshop

Workshop, Al-Ayen University, 2022-Apr-21

Everything you need to know about Researchgate: Practical Workshop

Workshop, Al-Ayen University, 2022-Apr-13

Academic Researcher training course

Workshop, University of Technology, 2022-Apr-7

Everything you need to know about Google Scholar: Practical Workshop

Workshop, Al-Ayen University, 2022-Apr-6

How to Manage Scientific Websites Related to Academic Research

Workshop, Al-Ayen University, 2022-Mar-30

The Journal System

Al Nahrain University, 4 Mar. 2021.

Research Gate Workshop

Al Nahrain University, 23 Dec. 2018.

Peer Review and Publons

Al Nahrain University, 4 Mar. 2019.

WORKSHOPS (ATTENDEE)

1. Superiority of Spoken Language over Written Language
2. Remark Office OMR Software
3. Web of Science Essentials
4. Good Citation Behavior
5. Reviewing in the sciences
6. 2021 FiO + LS Conference
7. 2020 FiO + LS Conference
8. 2020 OSA Biophotonics Congress Biomedical Optics
9. ACS CONVERGE: CONVERSATIONS ON REAL- WORLD APPLICATION OF SCIENCE
10. Advances in Polymer Nanocomposites
11. How to Get Published in Academic Journals
12. Design and Fabrication of Inline Fiber System For Covid-19
13. البحث العلمي و اثره على الاعتماد المؤسسي
14. خطوات تقييم البحوث
15. حساب معايير تصنيف المجلات
16. An approach to Pharma Method Validation for Direct Mass Spectrometry
17. Monitoring electronic excitations in organic semiconductors with ultrafast optical pump probe spectroscopy
18. 2020 Conference on Lasers and Electro-Optics ("CLEO")
19. Advances in Multifunctional Nanomaterials



ONLINE EDUCATION CERTIFICATES

ITMO UNIVERSITY / DEPARTMENT OF PHYSICS		
School on High-Q Nanophotonics Structures for Biosensing	Andrey Bogdanov	Nov. 22 – 23, 2021
LA SAPIENZA UNIVERSITY OF ROME		
Smart Environments	Francesca Cuomo	Jul. 21, 2020
ITMO UNIVERSITY / DEPARTMENT OF PHYSICS		
MetaNano Summer School	Daria K. Kozlova	Jul. 10, 2020
GOOGLE FOR EDUCATION		
Google Certified Educator: Level 1	Google	Aug. 30, 2019
OSA REVIEWER CERTIFICATION COURSE		
Optical Society of America	Joseph N. Mait Elizabeth Nolan, Kelly Cohen	Aug. 3, 2019
BECOMING A PEER-REVIEWER		
Researcher Academy Elsevier	Suzanne DeBell Philippe Terheggen	May 1, 2019
SOCIAL IMPACT / CERTIFICATE OF EXCELLENCE		
FUNDAMENTALS OF PUBLISHING / CERTIFICATE OF EXCELLENCE		
FUNDAMENTALS OF PEER-REVIEW / CERTIFICATE OF EXCELLENCE		
Researcher Academy Elsevier	Suzanne DeBell Philippe Terheggen	Apr. 13, 2019
BECOME AN ANDROID DEVELOPER FROM SCRATCH		
Udemy	Adam Lupu, Adam Schwem	Jan. 22, 2019
ACS REVIEWER LAB		
American Chemical Society	Sarah Tegen	Dec. 28, 2018
FOCUS ON PEER REVIEW		
Nature MasterClasses	Nick Campbell	Dec. 26, 2018
QUANTUM MECHANICS FOR SCIENTISTS AND ENGINEERS		
Stanford Online	David Miller	Dec. 15, 2017
CERTIFICATE 30640014X CONVERSATIONAL ENGLISH SKILLS		
Tsinghua University	Wenxia Zhang et al.	Jul. 23, 2015
CERTIFICATE COLWR12.2X ENGLISH GRAMMAR AND ESSAY WRITING		
CERTIFICATE COLWR12.3X ACADEMIC AND BUSINESS WRITING		
The University of California, Berkeley	Maggie Sokolik	Mar. 16, 11 2015
CERTIFICATE EE40LX ELECTRONIC INTERFACES BRIDGING THE PHYSICAL AND DIGITAL WORLDS		
The University of California, Berkeley	Michel Maharbiz	May 08, 2015
CERTIFICATE ET.3034TU SOLAR ENERGY		
Delft University of Technology	Arno H.M. Smets	Dec. 11, 2014
CERTIFICATE ISSCCX ISSCC PREVIEWS - CIRCUIT AND SYSTEM INSIGHTS		
IEEE	Anantha P. Chandrakasan	Mar. 17, 2015
CERTIFICATE LAFF LINEAR ALGEBRA - FOUNDATIONS TO FRONTIERS		
The University of Texas	Steven Mintz	May 27, 2015
CERTIFICATE OF COMPLETION: .7 CONTINUING EDUCATION UNITS; 7 PROFESSIONAL DEVELOPMENT HOURS		
IEEE		Feb. 28, 2015

RESEARCH, REVIEW & EDITORIAL RANKING, METRICS, STATISTICS & IMPACT

★ IQ RANKING

p	WOS Journal Last Year	78
	WOS Journal All Years	113
	Any Journal Last Year	106
	Any Journal All Years	159
	Editorial Record	30

★ PUBLONS METRICS

p	Verified Reviews (Any Journal)	134
	Verified Reviews (WOS Journal)	123
	Verified Editorial Records	34
	Post-Publication Reviews	4
	Excellent Reviews	4

★ World ranking as a reviewer in Topics (Publons)

Primary Topics	Rank	Secondary Topics	Rank
Comsol	1	Drones	4
Graphene-Based Electronic Devices	1	Smart Sensors	3
Optical Modulators	1	Cross-Field	7
Smartphone Nanosensor	1	Nanophotonics	13
Optical Communications	3	Optical Fiber Sensors	14
Point-of-care diagnostics	1	Plasmonics	14
Lab-on-a-chip	2	Solar Cells	15
Lasers	3	Communication	20
Matlab	4	Material Science	17
Sensor	7	Control	23
Fiber Optics	5	Biomedical Engineering	42
Biosensors	19	Physics	54
Multidisciplinary	15	Nanomaterials	150
Photonics	19	Computer Science	141
Optics	22	Engineering	227
Image Processing	79		
Electrical and Electronic Engineering	96		

Scientific Impcat

Publications



Citations (20) H-index (2) Documents (2)



Citations (5) H-index (1) Documents (4)



Citations (45) H-index (3) iH-index (2)

ResearchGate

Citations (35) H-index (2) Research Interest (696.9)



Citations (36) Publications (9)



Semantic Scholar

Citations (36) H-index (2) Publications (11)

Peer Review

Publisher (records)

1. IEEE (15)
2. Wiley, IET, IEEE (9)
3. ASTESJ (6)
4. SPIE (8)
5. OSA (27)
6. ACS (8)
7. IOP (33)
8. Springer (2)
9. Elsevier (19)
10. Academia (2)
11. UOT (3)
12. AIP (2)

Grant Review (2)

Editorial Records

Iraqi Journal of Embryos and Infertility Researches (34)



Editorials

Iraqi Journal of Embryos and Infertility Researches (IJEIR)

[Volume 10, Issue 2, Formation](#)

[Volume 10, Issue 1, Formation](#)

[Volume 9, Issue 2, Formation](#)

[Volume 9, Issue 1, Formation](#)

Total Citations: (51)

A review of smartphone point-of-care adapter design	31
Smartphone-based colorimetric sensor application for measuring biochemical material concentration	10
Design and Implementation of Aerial Vehicle Remote Sensing and Surveillance System, Dehazing Technique Using Modified Dark Channel Prior	3
Design and Performance Investigation of Graphene-Based Modulators for 1550 and 1310 nm Optical Communication Wavelengths	2
Introduction to COMSOL Multiphysics Software	2
Nanosensors basics, design and applications	2
Volume 9, Issue 1, Formation	1

Taif Alawsai

23 - Jul - 2022.