



Personal Details

Name	Dr. Mohammed Falih Abdul-Kareem
Scientific degree	Assistant Professor
Current position	Head of Information and Communication Engineering Department
Emails	m.falih@coie-nahrain.edu.iq , mohammedfalih@yahoo.com
Cellule Phone	00 964 781 075 7270



Academic Education

Degree	University Name	Issue Date	Field	Country
Ph.D.	Newcastle University	27/06/2012	Computer Engineering	United Kingdom
	Thesis Title:	Advanced Cryptographic System: Design, Architecture and FPGA Implementation		
M.Sc.	Technology University	27/02/2003	Computer Engineering	Iraq
	Thesis Title:	Design and Implementation of Stream-Cipher DCT-Based Image Steganography System		
B.Sc.	Technology University	27/08/1991	Computer Engineering	Iraq
	Project Title:	Microprocessor Based Stepper Motor Controller		

Professional Positions

From November 2018 to Present	Head of Information and Communication Engineering Department
From September 2014 to November 2018	Deputy Head of Systems Engineering Dept.
From September 2013 to September 2014	Deputy Head of Internet Engineering Dept.
From September 2012 to September 2013	Deputy Head of Information and Communication Engineering Department

Scientific Media Identifiers

Google Scholar	M. F. Al-Gailani, https://scholar.google.com/citations?hl=en&user=26LyWr8AAAAJ
Scopus	Mohammed F. Al-Gailani, https://www.scopus.com/authid/detail.uri?authorId=36614969800
ORCID	https://orcid.org/0000-0003-4307-941X

Courses Taught

Year 1: Computer Programming (C++), Computer Fundamentals and Programming (C++)
Year 2: Computer Architecture
Year 3: Cryptography, System Engineering Analysis and Design, Project Management
Year 4: Digital System Design (DSD) with VHDL
M.Sc. : Information Security

Current Research Interest

My research interest revolves around the following areas:
<ul style="list-style-type: none">- Theoretical and practical aspects of information security in general including cryptography (encryption, decryption, authentication, verification, data integrity) and steganography (data hiding).
<ul style="list-style-type: none">- Field Programmable Gate Array (FPGA) design and implementation of embedded systems using VHDL or Xilinx System Generator
<ul style="list-style-type: none">- Design and implementation of projects using Arduino microcontroller

Publications

No.	Published papers
1	AQ Al-Khafaji, MF Al-Gailani, "FPGA Design and Implementation of an AES Algorithm based on Iterative Looping Architecture", in <i>9th International Conference on Consumer Electronics (ICCE)</i> , Berlin, Germany, September 2019. DOI: 10.1109/ICCE-Berlin47944.2019.8966137
2	AM Farhan and MF Al-Gailani, "Iris Matching Step Implementation in FPGA", in <i>Iraqi Journal of Information and Communication Technology</i> , 2019, Vol. 2, No 1, PP. 26-36. DOI: https://doi.org/10.31987/ijict.2.1.63
3	AM Farhan and MF Al-Gailani, "Developing Iris Recognition System Based on Enhanced Normalization", in <i>2nd Scientific Conference of Computer Sciences (SCCS)</i> , Baghdad, Iraq, 2019, PP. 167-170. DOI: 10.1109/SCCS.2019.8852622
4	AQ Al-Khafaji, MF Al-Gailani, "Loop unrolling implementation of an AES Algorithm using Xilinx System Generator", <i>Iraqi Journal of Information & Communications Technology</i> 2019, Vol.2, No. 3, pp. 38-45. DOI: https://doi.org/10.31987/ijict.2.3.85
5	MF Al-Gailani, "An FPGA Implementation of the Serpent Algorithm using Xilinx System Generator", in <i>Journal of Engineering and Applied Sciences</i> , 2018, Vol.13, No 8, PP. 1974-1979.

6	Zaid Sh. Bakr and M.F. Al-Gailani , "Establishing and Managing Cloud Computing using VMware vSphere", in <i>International Journal of Electrical & Computer Sciences IJECS-IJENS</i> , 2016, Vol.16, No 05, pp. 19-27.
7	M. F. Al-Gailani and S. Boussakta, "New Mersenne Number Transform Diffusion Power Analysis", in <i>American Journal of Engineering and Applied Sciences</i> , USA, 2011, Vol. 4, No. 4, pp. 461-469.
8	M. F. Al-Gailani, <i>et al.</i> , "Fermat Number Transform Diffusion's Analysis", in <i>IEEE GCC Conference and Exhibition</i> , Dubai, UAE, 2011, pp. 237-240. DOI: 10.1109/IEEGCC.2011.5752501
9	X. B. Yang, <i>et al.</i> , "A New Development of Cryptosystem Using New Mersenne Number Transform", in <i>7th International Symposium on Communication Systems, Networks and Digital Signal Processing (CSNDSP)</i> , England, UK, 2010, pp. 701-705. DOI: 10.1109/CSNDSP16145.2010.5580343
10	X. B. Yang, <i>et al.</i> , "A New Development of Public Key Cryptosystem", in <i>7th International Symposium on Communication Systems, Networks and Digital Signal Processing (CSNDSP)</i> , England, UK, 2010, pp. 706-710. DOI: 10.1109/CSNDSP16145.2010.5580333
11	M. F. Al-Gailani and S. Boussakta, "Evaluation of One-dimensional NMNT for Security Applications", in <i>7th International Symposium on Communication Systems, Networks and Digital Signal Processing (CSNDSP)</i> England, UK, 2010, pp. 715-720. DOI: 10.1109/CSNDSP16145.2010.5580331
12	P. J. Sackett, <i>et al.</i> , "A Review of Data Visualization: Opportunities in Manufacturing Sequence Management", in <i>IJCIM (International Journal of Computer Integrated Manufacturing)</i> , UK, 2006, Vol. 19, No. 7, pp. 689-704. DOI: 10.1080/09511920500504578

Supervision

BSc Students	25
Higher Diploma	3
MSc Students	6
PhD Students	2

Fellowships

Chevening Technology Enterprise Scholarship (CTES) Programme (2004-2005):
One-year UK-based CTES Programme combining technology and business training to drive forward technology transfer and the commercialisation of innovation.
The business training was carried out in different British universities including Imperial College London, London Business School, Jesus College Cambridge and CASS Business School (London). While the research field was done at Cranfield University.

International Training Qualifications

1	AGI Management Training Course Units (Innovation Management and Leadership), from 9-13 July 2019 in Bonn, Germany.
2	Xilinx/EUROPRACTICE Partial Reconfiguration Workshop (2011), which was held at the Microelectronics Support Centre, Science and Technology Facilities Council, Rutherford Appleton Laboratory, England, UK.
3	Microelectronics Support Centre Training Course Certificate: Introduction to FPGA design (2010), at the Microelectronics Support Centre, Science and Technology Facilities Council, Rutherford Appleton Laboratory, England, UK.
4	Attended many workshops on different programming languages and Microsoft office (2008-2012), Newcastle University, UK.

Participation

Participated with a Business Plan Development Workshop, 16-18 May, 2005; Amman, Jordan. Organised by the Arab Science and Technology Foundation (ASTF) \ UAE, for the business plan: Knowledge Management Solutions for the Oil and Petrochemical Industries.

Certificate of Excellence

Awarded the Imagination Technologies prize in the field of Communication and Signal Processing for best 2 nd paper and presentation, January 2011
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Membership in Professional Organization

No	Title	Organization Name	Association No.	Association Date
1	Consultant	Iraqi Engineers Union	64831	09/12/1991
2	Member	Iraqi Computer Society	1120	01/10/1994

Appreciation Letters

Minister of Higher Education and Scientific Research	7
President of Al-Nahrain University	20
Dean of Information Engineering College	12
Others	11