



## Curriculum Vitae of a faculty member

### 1. Personal information

<b>Name</b>	Shawkat Sabah Khairullah
<b>Academic Degree</b>	Doctor of Philosophy, Ph.D.
<b>Job Title</b>	Lecturer
<b>General Major</b>	Computer Engineering
<b>Mobil No.</b>	07730883250
<b>Email address</b>	<a href="mailto:Shawkat.sabah@uomosul.edu.iq">Shawkat.sabah@uomosul.edu.iq</a> <a href="mailto:khairullahss@mymail.vcu.edu">khairullahss@mymail.vcu.edu</a>
<b>Website</b>	

### 2. Education

Degree	Date of Graduation	Name of university	Country	Major
<b>Doctorate</b>	2018	Virginia Commonwealth University	United States of America	Computer Engineering
<b>Master</b>	2011	University of Mosul	Iraq	Computer Engineering
<b>Bachelor</b>	2006	University of Mosul	Iraq	Computer Engineering

### 3. Experiences

Employment	Job Title	Period
University of Mosul/ College of Engineering	Engineer Assistant	2006 – 4/2011
University of Mosul/ College of Engineering	Lecturer Assistant	4/2011 – 7/2013
Virginia Commonwealth University	Doctorate Research/Teaching Assistant	8/2015 – 12/2018
University of Mosul/ College of Engineering	Lecturer Assistant	1/2019 – Present

### 4. Research Experience

Architected highly dependable hardware architectures inspired from biological systems for a research project funded by the Ministry of Higher Education and Scientific Research (MOHESR) and the Electric Power Research Institute (EPRI).

Experienced computer engineer with industrial Programmable Logic Controller (PLC) and Human Machine Interface (HMI) programming Rockwell/Allen-Bradley (ControlLogix & CompactLogix), ASIC's/ FPGAs/SoCs/VHDL hardware description language, Verification and Validation (V&V) using formal-methods, and fault-injection/tolerance techniques.

Conducted research on the development of self-healing and resilient digital Instrumentation and Control (I&C) systems for safety-critical applications requiring high levels of resilience against various fault classes. Getting further advanced training in VLSI Tools.

### 5. Teaching Experience

Digital systems design, Computer Architecture, Analysis and Design of Dependable Embedded Systems, Dependability Assessment Methods for Safety Critical Systems, Verification using Formal Methods, Fault Tolerant based Design using VLSI/FPGA Tools.

## 6. Statistics

RG Score	1.42
Publications	6
Reads.	365
Citations.	3

## 7. Scientific Memberships

1	Institute of Electrical and Electronics Engineers (IEEE), Industrial Electronic Society (IES) – Member – February 2018 – Present.
2	Institute of Electrical and Electronics Engineers (IEEE), Computer Society – Member – February 2018 – Present.
3	Institute of Electrical and Electronics Engineers (IEEE) – Member – August 2016 – Present.

## 8. Researches & Scientific activities

1	A Bio-Inspired, Self-Healing, Resilient Architecture for Digital Instrumentation and Control Systems and Embedded Devices – Technical Journal of Nuclear Technology: vol. 202, no. 2-3, pp. 141-152, Jun. 2018.
2	Toward Biologically Inspired Self-Healing Digital Embedded Devices: BIO-SymPLe – Proceedings of the ANS NPIC & HMIT Conference, Technical Conference Paper, June 2017.
3	Lessons and Experiences Learned Applying Model Based Engineering to Safety Critical FPGA Designs.
4	Making Digital Embedded Devices Fault Tolerant and More Reliable
5	Dissertation Title: “Toward Biologically-Inspired Self-Healing, Resilient Architectures for Digital Instrumentation and Control Systems and Embedded Devices”.
6	Thesis Title: “FPGA Implementation of an Intelligent Controller for Mobile Robot”.
7	Research Project Title: Design and implementation of a digital filtering system using the Texas Instruments TMS320C50 Digital Signal Processor.
8	ANS Certification – Helping Deliver on the Nuclear Promise: A Digital I&C Licensing and Qualification Workshop– June 2017.

Books

9. Scientific Conferences

	Conference Name	Date
1	10th International Topical Meeting on Nuclear Plant Instrumentation, Control, and Human Machine Interface Technologies. ANS NPIC & HMIT 2017 Conference.	June 2017
2	44th Annual Conference of the IEEE Industrial Electronics Society: The IECON 2018	October 2018
3	11 <sup>th</sup> International Workshop on the Application of FPGAs in NPPs	October 2018

10. Training courses for faculty members .

	Training program name	Date
1	Teaching methods course / University of Mosul	2011
2	ISO/IEC 17025/2005 Certification	2012
3	CCNA 1/Cisco – Networking Basics Certification	2007

- Master's and Doctoral theses which he supervised

	Researcher name	Thesis title	Reg. date
1			
2			

- Theses which he discussed

	Researcher name	Thesis title	date
--	-----------------	--------------	------

<b>1</b>			
<b>2</b>			