

Assit. Prof. Dr. Assmaa A. Fahad

CONTACT INFORMATION

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PERSONAL INFORMATION

Name : Assmaa A. Fahad
Nationality : Iraqi
Birth Date : NINEVEH / Iraq 1970
Gender : Female
Marital Status : Married

ACADEMIC QUALIFICATION

- B. Sc. In Computer Science from Baghdad University / College of Science / Computer Science Department 1991.
- M. Sc. In Computer Science from Baghdad University / College of Science / Computer Science Department 1997.
- PhD. In Computer Science from University of Technology / Computer Science Department 2015.

TITLE OF M.Sc. THESIS

" Software Development Tools And Executive Kernel Design For Programmable Logic Controller"

TITLE OF PhD. THESIS

"Honeypote Based on Performance Counters for Mobile Network Security"

DATE OF SCIENTIFIC TITLES

1997 : Assistance Lecturer.
2000 : Lecturer
2007 : Assistance Profesor.

TEACHING EXPERIENCE

- Faculty member in Computer Science department / College of Science / Baghdad University (1992 – to date).
- Part time lecturer of Computer Science at College of Engineering / Baghdad University/ Architecture Dept. (1992-1994).
- Part time lecturer of Computer Science at AL-Nahrain University / College of Science / Computer Science Dept. (2003-2005).

COMMITTEES

- 1997-2010 : Examination Committee in the Computer Science Department / College of Science.
- 1999-2005 : The Deputy of the Computer Science Department chair for under graduate stady.
- 2004-2010 : The Deputy of the Computer Science Department chair for graduate stady.
- 2008-2010 : Part time as an instructor in Cisco Network Academy / College of science Baghdad university.
- 2010-2011 : The chair of Cisco Network Academy / College of science Baghdad university.
- 2015-2017 : Examination Committee in the Computer Science Department / College of Science.

- 2019 – to date: The Deputy of the Computer Science Department chair for graduate study.

UNDERGRADUATE COURSES

- Microprocessor and Microcomputer Architecture and Programming using Assembly Language.
- Operating System.
- System Programming.
- Object Oriented Programming.

GRADUATE COURSES

- Supervise Eight M.Sc students.
- Thesis committee member for several M.Sc. students.
- Advance Operating System / Diploma 2015-2016
- Advance Operating System / Master / AL-Nahrain University 2015-2018

PROGRAMMING SKILLS

- Programming Programmable Logic Controller (PLC).
- Visual Basic, Visual C, C++, C builder, MFC, Delphi, Access, MySQL, and Assembly programming.

RESEARCH INTERESTS

- Mobile computation
- System Programming.
- Operating System.
- System Security.

WORKING EXPERIENCE

- 1997-2000: Joined a programming team from the Ministry of Industrial and minerals to maintain several PLCs used in different factories in Iraq. The maintenance process includes: a reverse engineering for the PLC hardware in order to diagnose hardware errors and fix them, analyse the PLC functions to understand the used PLC kernel and rewrite the damaged parts of it. My responsibility was to analyse the PLC functions depending on the results of the reverse engineering operation and rewriting the missing parts of the PLC kernel.
- 1999-2001: worked with a team of electronics and computer engineers in the Ministry of Industrial and minerals to design a Supervisory Control and Data Acquisition system, SCADA, for a power station, which is implemented in the BAIJI power station, one of the biggest power stations in northern Iraq. The written SCADA system consists of seven models communicate between each others. My responsibility was the writing the Application Program Module that supports:
 - Power On Self Test (POST) programs.
 - Device drivers for the hardware components that require programming support such as watchdog timers, hardware interrupts, and variant I/O modules interfaces (Analog, Digital, and interrupt Digital) in the system.
 - Passing data back and forth between the various modules.

·Communicate with other modules using HDLC communication protocol.

Since these operations must be implemented in a high response time, most of these functions were written using either Intel assembly language or C language.

This work is published in Journal of Engineering, College of Engineering, Baghdad University.

- 2001-2003: Collaborate with a team from the Ministry of Industrial and minerals to support a PLC control system for some of the cement factories in the northern part of IRAQ. The work was an implementation for my master project with some enhancements. The supported PLC was designed and implemented by the Ministry of Industrial and minerals in IRAQ. A GUI was built to the system, extra commands were added to the original PLC language to help the programming process, and the compiler was updated accordingly.

PUBLISHING

- "A simulator for the subset of MOTOROLA 68000 assembly language to run on the Intel 80386 based computers" IRAQI Journal of Science, Vol. 40D, No.1, March, 1999.
- "Versification by the use of the Computer", IRAQI Journal of Science, Vol. 42D, No.1, 2001.
- "Software Development Tools and Executive Kernel Design for Programmable Logic Controllers", International Arab Conference of Information Technology (ACIT), December 16-18 2002, Doha, Qatar.
- "Design and Implementation of Graphical User Interface for Industrial Applications", Third IEEE International Conference on System Signals & Devices, March 21-24, 2005, Sousse, Tunisia.
- "Design of an Adaptable LADDER Editor for Programmable Logic Controller", Journal of Al-Nahrain University, Vol.10, No.1, June 2007, PP 159-166.
- "Design and Implementation of Application Program Module for a Power Station SCADA System", Journal of Engineering, College of Engineering, Baghdad University. Vol. 13, No. 4, December 2007.
- "Building a Modern NEC Touch Pad System Software", the 10th International Arab Conference for Information Technology (ACIT), 15-17 December 2009, University of Science and Technologe, Sana'a, Yaman.
- "A Survey on SmartPhone Honypot", International Journal of Computers and Technology. Vol 11, No.4, 2013.
- "Design Requirements of a SmartPhone Honeypot System", International Journal of Computer Application, Vol 6, No. 4, 2014.
- "Evaluation of Two Thresholds Two Divisor Chunking Algorithm Using Rabin Finger print, Adler, and SHA1", IRAQI Journal of Science, Vol. 42D, No.1, 2017
- "New Techniques to Enhance Data Deduplication using Content based= TTTD Chunking Algorithm", IJACSA, Vol.9, No. 5, 2018.

CERTIFICATES

- Cisco CCNA 1 "Networking Fundamentals" certificate as an instructor, January 2008.
- Cisco CCNA 2 "Routers and Routing protocols " certificate as an instructor, JUNE 2010.
- "First Faculty Exchange between Baghdad University and the United States Military Academy" From 4 August 2004 to 28 August 2004. West Point New York, USA.
- " Administrator Course in Baghdad University (Web/ E-mail / Java Courses)" for the project of establishment of IT infrastructure at University of Baghdad in Iraq. From 16 January 2005 to 5 February 2005. Organized by the Korea International Cooperation Agency (KOICA) and implemented by LG Cable Comp. Ltd. of the Republic of KOREA.