Prof. Dr. Bubaker Bushofa



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Experience

2014 – now: Professor at The Department of Electrical and Electronic Engineering, Faculty of Engineering, University of Tripoli

2007 - 2013: Associate Professor at The Department of Electrical and Electronic Engineering, Faculty of Engineering, University of Tripoli.

2005-2007: Head of Department of Computer Engineering and
Information Technology at, The Libyan Academy of
Graduate Studies, Tripoli, Libya.

2003-2005: Deputy Dean at The Faculty of information Systems, Ajman University for Science and Technology, UAE. Full responsibility of the dean of the faculty in Al-Ain campus.

2001-2003: Assistant Professor at the Faculty of Information Systems, Ajman University of Science and Engineering, UAE.

1998-2000: Assistant Professor at The Department of Electrical and Electronic Engineering, University of Tripoli, Tripoli, Libya.

1991-1993: **Head of Control Systems Department**, Faculty of Electronic Engineering, Baniwalid Libya.

1987-1991: **Lecturer** at Faculty of Electronic Engineering, Baniwalid Libya.

1980-1984: Laboratory Engineer at the Higher Institute of

Electronic, Baniwalid Libya.

Education 1994-1997: PhD in Computer Engineering from the University of

Birmingham, United Kingdom.

Research on computer recognition of Printed Arabic characters using structural classifications. (See publications 2, 11, 13 and 14). A complete stand-alone working recognitions system for Arabic characters is

developed using a new approach.

1985-1986: M.Sc. in Electronic Engineering from the University

College of Cardiff UK. Main focus on electronics and

computer hardware. (See publications 3 and 4).

1976-1979: B.Eng. (Hons) in Electronic and Electrical Engineering

from the Higher Institute of Electronics Libya.

Teaching & Research

Subjects taught include:

Graduate and Postgraduate Level:

Master courses taught: (At The Department of Electrical & Electronic Eng. University of Tripoli)

- Advanced Computer Networks.
- Computer Network Security.

Master courses taught: (At The American University, London)

- Database Systems.
- Computer Networks-I
- Computer Networks-II

Master courses taught: (At The Libyan Academy of Graduate Studies, Tripoli)

- Computer Networks.
- Computer Network Security.
- Web Application Technology.

Master courses taught: (At The University of Tripoli)

- Computer Network Security.
- Advanced Computer Networks.
- Computer Networks-I
- Computer Networks-II

Master dissertation supervised:

- Bluetooth Security Protocols.
- The Construction of a UDP/IP and Novell IPX Gateway System.
- Academic computing environment project (ACE).
- Inspection database system.
- Arabic Handwriting Recognition.
- Arabic Speech Recognition.
- Security Issues in the Internet.
- Measuring of GPRS speed.
- WiMax Security.

Ph.D. theses supervised:

- Arabic Speech Recognition, Investigation and Development.
- Implementing SCADA system at the National Steal Factory.

Teaching at the Undergraduate Level:

- Computer networks-I & II
- Computer Administration
- Computer Network Security
- Microprocessor System Design
- Computer Interfacing
- Computer Peripherals
- Image processing
- Database Design and Implementation
- Data Structures
- Object Oriented programming using C++ and Java
- Teaching other programming languages such as C#, C++ Java, C, Pascal, FORTRAN, Basic
- Operating systems including DOS, Windows and UNIX
- Computer Control Systems
- Digital Control Systems

Short courses for the public:

- Using the Internet
- Development of the Arabic web pages
- Developing Java applets and PHP scripts
- Linux configuration (customization and administration)

Research interests are:

- Pattern and image processing specially in the field of Arabic character recognition and Arabic speech recognition.
- Computer networking and Internet development as related to Arabic language and cultural interests.
- Computer Network Security including WiMAX Security
- Cloud Computing and its Security

Projects Supervised:

Supervised more than 60 B.Sc. projects in the following fields:

- Neural Networks application to the pattern recognition
- Web pages development and design as related to ecommerce
- Web servers configuration and development
- Arabic spell checking and dictionary development.
- Network Systems and Protocols.

Other Activities

Several activities include:

- Head of the Technical Administration of The Libyan National ID Number (NID) and a full member of the Administration Committee.
- Part time consultant and inspector for The Universal Inspectorates and Services (UIS), Malta.
- Participated actively in development of courses taught at the faculty of Computer Science and Engineering at Ajman University

- Member of the general committee responsible for preparing and updating syllabus for all of the higher technical institutes in Libya in the field of computer science and engineering
- Elected as one of two members to represent Libya in the meeting of The United Arab Secretariat for Technical Education to develop the Syllabus for the Electrical and Electronic Departments of the Arab Technical Institutes, 10-14 Sept. 2000 at the Balga University, Amman Jordan
- A teaching staff member at The Engineering Academy, The Higher Institute of computer Technology, The Higher Institute of Electronics, The Higher Institute of Industrial Technology.

Proficient In

- Fluent in Python Programming.
- Good experience in understanding and managing LAN, and WAN computer networks
- Computer programming experience includes Java, C++ (including visual C++), C, Pascal (including Borland Delphi), Prolog, FORTRAN, BASIC (including visual Basic), Database (including Oracle, visual dBASE and FoxPro), MASM, TASM, PIC assembly languages
- Also experienced in installing, configuring and using Unix, Linux, Sun OS, Sun Solars, Novel, Windows 95, 98, ME, 2000 (workstation and server), XP.
- Also experienced in using software packages such as MATLAB, MCAD, and writing web pages using HTML with java applets and Perl configuration routines and shellscripts.

Research & Interests

- Computer Network Security and information encryption.
- Computer networks and system distribution.
- Cloud Computing.
- Pattern Recognition.
- Image Processing.

Publication:

- 1- Abubaker M. F. Abushofa and Naji Bazina, User Authentication based on his/her Speech, 3rd International Conference on Machine Learning and Computer Science (IMLCS'2014) Jan. 5-6, 2014 Dubai (UAE).
- 2- Abubaker M. F. Abushofa and Abdel Hafez A. Azab, "Simulating Discrete Time Model Reference Adaptive Control System with Great Initial Error Solution and Analysis 1 –", International Conference on Computer

- Applications Technology (ICCAT), 22-26 Jan. 2013, Sousse, Tunisia, Published in IEEE xplore.
- 3- B M F Bushofa and A H A Azab, "Simulating Discrete Time Model Reference Adaptive Control System with Great Initial Error", World Academy of Science, Engineering and Technology, Vol.47, pp. 20-30, November 2010.
- 4- B M F Bushofa and M Spann, "Segmentation and Recognition of Printed Arabic Characters by Structural Classifications", Image and Vision Computing, Vol.13, no.12, February 1997.
- 5- T Myedan and B M F Bushofa, "Non-Contact Amorphous Speed Sensor", Sensors and Actuators A-Physical, Vol.37, No.8, pp.458-460, 1993.
- 6- B M F Bushofa and T Myedan, "Passive Non-contact Amorphous Speed Sensor", *IEEE Transactions On Magnetics*, Vol.23, No.5, pp.2197-2199, 1987.
- 7- Abubaker M. F. Abushofa and A H A Azab, "Simulating Discrete Time Model Reference Adaptive Control System with Great Initial Error, Solution and Analysis-1", International Conference on Computer Applications Technology ICCAT' 2013, January 20-22, Sousse, Tunisia.
- 8- Abubaker M. F. Abushofa, "Overview of Cloud Computing", The Fifth Libyan Arab International Conference on Electrical and Electronic Engineering, October 23-26, 2010, pp 703-708.
- 9- Abubaker M. F. Abushofa and Alferjani S. M. Mahmud, "The Impact of WiMAX Security on the System Performance", The Fifth Libyan Arab International Conference on Electrical and Electronic Engineering, October 23-26, 2010, pp 709-725.
- 10- Abubaker M. F. Abushofa and Nadia M. F. Hmad, "Arabic Speech Recognition (ASR)", The Fifth Libyan Arab International Conference on Electrical and Electronic Engineering, October 23-26, 2010, pp 779-793.

- 11- B M F Bushofa and Ali Okok, "Technical Requirements to Establish an Electronic Government", The National Conference for Information Technology and Communication ITC2008, May 19-21 2008.
- 12- B M F Bushofa and Samira A. Alshefah, "Recognition of Handwritten Arabic Characters", The National Conference for Information Technology and Communication ITC2008, May 19-21 2008.
- 13- B M F Bushofa, "Polygon Approximation of Curves as an Aid to Feature Extraction of Arabic Characters", The 4th Libyan Arab International Conference on Electrical and Electronic Engineerin March 20-23, 2006.
- 14- B M F Bushofa, "A Model for National Local Area PC Network with Internet Access Capability", The 4th Scientific Conference, Tripoli, Libya, May 16-17, 1998.
- 15- B M F Bushofa and M Spann, "Segmentation of Arabic Characters Using Their Contour Information", 13th International Conference on DSP, Santorini, Greece, July 2-4 1997.
- 16- B. M. F. Bushofa and M. Spann, "Segmentation and recognition of printed Arabic characters", in Proc. British Machine Vision Conference, BMVC-95, pp. 543-552, 1995.
- 17- A Dziech and B M F Bushofa, "Some Problems of Approximation and Data Compression using Walsh and Walsh Piecewise Linear Transforms", in Proc. International AMSE Conference on Signals, Data, Systems, with emphasis on Electrical and Electronic Engineering, Djerba, Tunisia, vol.2, pp.23-31, November 11-13, 1991.
- 1. Member IEEE USA

2. Member Computer Society IEEE USA

Professional Membership

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