 Curriculum Vitae

PERSONAL INFORMATION

Ahmed Karam Mohammed AbdElkarim

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POSITION

Teaching Assistant - Biomedical Engineering Department - Faculty of Engineering - Helwan University

WORK EXPERIENCE

Jun 12–Sep 13

Researcher and Teaching Assistant

Biomedical Engineering Deptartment, Faculty of Engineering, Helwan University, Cairo (Egypt)

- Teaching:
    - Medical Imaging Systems.
    - Digital Signal Processing.
    - Measurements and Measuring Instruments.
    - Fundamentals of Signal Processing.
- Assisting in graduation projects for final year Biomedical Engineering students.

Jun 11–Nov 12

Customer Service Engineer

Siemens, Cairo (Egypt)

- Maintenance and installation of Medical Imaging Equipments like Gamma Camera, SPECT(Single Photon Emission Computed Tomography), PET(Positron Emission Tomography), CT(Computed Tomography) and PET-CT machines.
- Assigned as a resident engineer at the Children Cancer Hospital 57357 that includes most of Siemens Healthcare Radiology Products CT, PET-CT ,MRI, X-ray systems, Linear Accelerator systems, Ultrasound systems and other equipments like Lab Equipments, Operation Room Equipments, Intensive Care Equipments …..etc

EDUCATION AND TRAINING

1 Sep 13–Present

Erasmus Mundus MSc in Computer Vision and Robotics (VIBOT)

About the master program:-

- Erasmus Mundus scholarship.
- This master program leads to qualification for entry into the professions in area of signal processing, image processing, computer vision, medical imaging and robotics in either in public or private research.

Institutions and dates:-

- September 2013 – January 2014: Université de Bourgogne [UB] - Le Creusot, France.
- February 2014 – June 2014: Universitat de Girona [UdG] - Girona, Spain.
- September 2014 – January 2015: Heriot- Watt University [HW] Edinburgh, United Kingdom.
- February 2015 - June 2015: Université de Bourgogne [UB] - Le2i Lab, Dijon, France.

1 Sep 11–Present	**MSc in Biomedical Engineering**
	Biomedical Engineering Department - Faculty of Engineering - Helwan University, Cairo (Egypt)
	Research topic: Quantification of Iron Overload in Thalassemia Patients Using Magnetic Resonance Imaging.

1 Sep 06–30 Jun 11	**B.Sc. in Biomedical Engineering**
	Biomedical Engineering Department - Faculty of Engineering - Helwan University, Cairo (Egypt)
	Excellent with Honor degree, the first 89.25%.

22 Oct 12–28 Nov 12	**Preparation course for the TOEFL IBT**
	Amideast, Cairo (Egypt)

Feb 11–Mar 11	**Course in Digital Design using FPGA(Field Programmable Gate Array).**
	Jelecom Training Center, Cairo (Egypt)

Jul 10–Aug 10	**Trainee**
	Siemens, Cairo (Egypt)
	Training on Siemens Healthcare sector.

Jul 09–Aug 09	**Course in Microcontrollers**
	Biomedical & Scientific Training Centre "B.S.T.C"

PERSONAL SKILLS

Mother tongue(s) Arabic

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	B2	B2	C1

English

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference for Languages

Communication skills
- Can work under pressure.
- Like to achieve my goals.
- Able to motivate others.
- Have excellent organizational skills.

Organisational / managerial skills

Job-related skills
- Team spirit and work commitment.
- Fast adaptation to work in multicultural environments.

Computer skills
■ Programming languages:- Matlab, Python, C and C++.

- Engineering programs (as Xilinx for FPGA, ...).
- Electronics programs (as Proteus and Multisim Simulation program, PCB layout and Design).
- All windows versions, ubuntu.
- Microsoft office, Latex, Internet and ICDL

ADDITIONAL INFORMATION

Publications

[1] E. H. Ibrahim, A. M. Khalifa, **Ahmed K. Eldaly**, and A. W. Bowman "The effects of the analysis technique on hepatic iron evaluation using T2* mapping with magnetic resonance imaging" IEEE - MECBME, Qatar, Feb. 2014.

[2] E. H. Ibrahim, A. M. Khalifa, **Ahmed K. Eldaly** "The Influence of the Analysis Technique on Estimating Liver Iron Overload Using Magnetic Resonance Imaging T2* Quantification" IEEE - EMBC, USA, April, 2014

Projects

● **BSc projects:-**

[1] Home Hemodialysis Machine (2011), We received a financial award as well as a certificate of appreciation in a competition for YIA (Young Innovator Award).

[2] Pulse Oximeter (2010)

[3] ECG (ElectroCardioGraph) (2010)

[4] Digital Thermometer (2009)

● **Postgraduate projects (VIBOT Master 2013:2015):-**

[1] Software Engineering:-

    - Le Creusot Mapping Software (Matlab).

[2] Mathematics:-

    - Face Recognition - (Matlab).

[3] Scene Segmentation and Interpretation:-

    - Region Growing Segmentation - Image Characterization and Texture Analysis - PASCAL Image Classification. (Matlab)

[4] Visual Perception:

    - Calibration of a Simulated Camera - Corner Detection - Computing the Fundamental Matrix from two simulated cameras - Solving the Image Correspondence Problem using SIFT. (Matlab)

[5] Medical Images Analysis:-

    - MRI Brain Segmentation (Matlab) - Training on the MevisLab tool - Image Registration using ITK toolkit - Evaluation of the Segmentation Results (Matlab)

[6] Autonomous Robots:-

    - Bug 2 - Tungent Bug - Potential Functions "Wavefront Planner" - Topological Maps "Visibility Graph" - Graph Search "A Star". (Matlab)

[7] Probabilistic Robots:-

    - Split and Merge Algorithm- Particle Filter - Robot Localization using Extended Kalman Filter (EKF) - EKF Simultaneous Localization and Mapping. (Python)

[8] Advanced Image Analysis:-

    - Bilateral Filtering - Non linear Filtering - Image Debluring - Image Compression and Quantization. (Matlab)

Honours and awards

- 2013 : 2015:- Joint Erasmus Mundus Master scholarship awarded by the European Commission.
- 2011: Nahdet El Mahrousa "Young Innovators' Award program", Award for excellence in the BSc graduation projects.

- 2011: BSc. in Biomedical Engineering, Faculty of Engineering of Helwan University, Distinction with honor degree.

References	[1] Prof. Mohammed Tarek Elwakad

[1] Prof. Mohammed Tarek Elwakad

Previous Vice Dean, Community service-Faculty of Engineering, Helwan University, Cairo, Egypt.

Professor of Biomedical Engineering.

mtwakad@yahoo.com

[2] Prof. Ahmed Seddik

Head of Biomedical Engineering Department - Faculty of Engineering of Helwan University.

Ahmed_Sadik@h-eng.helwan.edu.eg

[3] Prof. David Fofi

General Coordinator of the Erasmus Mundus MSc scholarship program.

Professor of Computer Vision, Le2i / University of Burgundy
david.fofi@u-bourgogne.fr

[4] Dr. Robert Marti

Coordinator of the Erasmus Mundus MSc scholarship program at University of Girona.

Professor of Computer Vision.

robert.marti@udg.edu