Resume

Hani M. AMASHA

هاني محمد عماشه

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Contacts : Mobile: 00963-999251830, Phone: 00963115611745
Date of Birth : 01/04/1961

Bachelor of Engineering (B.Eng. , July 1984)

Institution: Damascus Univ., Faculty of Electrical Eng., Dept. of Electronic & Computer Eng., **Syria**
Subject: **Electronic and Computer Engineering**
Distinctions: **First (Top)** student throughout and upon graduation, annual financial award.
(One of the top ten students at Damascus University as a whole)

Doctor of Philosophy (Ph.D. , May 1992)

Institution: University of Sheffield, Faculty of Engineering, Dept. of Electronic Eng., **England**
Subject: **Medical Electronics (Computer and Electronic Engineering in Medicine)**
Thesis: **Computerized Electrical Impedance Imaging for Measurement and Thermal Mapping of Microwave Hyperthermia.**
Study dates: October, 1986 → May, 1992 (Thesis Submitted Sept. 1991, defended May 1992)

Certificate in Education (Cert. Ed. , January 1994)

Institution: University of Huddersfield, School of Education, **England, Jan. 93→Jan. 94**
Subject: Qualifying lecturers for Further and Higher Engineering and Computing Education

Professional Bodies Memberships

Member of the American **IEEE** (Institute of Electrical and Electronic Engineers), **USA** Since 1989.
Consultant Member of the Syrian **Order of Engineers**, Damascus, **Syria**. Since 1987

Employment & Work Experience

Employer: **Head of Biomedical Engineering Department (Damascus University, Damascus, Syria).** (Full-Time)
Department of Computer & Comm. Eng.(Syrian Private University, Damascus, Syria). (Part-Time)
Job: **Associate Professor**
Dates: **September 2009 → *Now***
Courses taught:

***** *Computer Architecture*	**Computer Organization and Assembly Language*
** Analog Signal Processing.*	** Logic Circuits*
** Digital Signal Processing*	** Advanced Electronics*
** Biomedical Signal Acquisition and Processing.*	
** Biomedical Equipment and Instrumentation*	
** Biomedical Electronics*	** Biomedical Measurements*
** Acoustics and Psychoacoustics*	** Amplification in Hearing Aid.*
** Vestibular Rehabilitation*	** Introduction to Audiology*

Employer: Joint between **Biomedical Eng Dept**. **and the Electrical & Computer Eng. Dept.**,
College of Engineering, **Hashemite** University, **Jordan**
Job: **Assistant Professor (Grade A)**
Dates: **September 2004 → *September 2009***
Courses taught:

***** *Microprocessor and Interfacing*	** Microcomputers and the Assembly Language*
** Signal Analysis for Electrical Eng.*	** Measurements and Instrumentation*
** Digital Logic*	** Intro. of Electrical and Electronic Engineering.*
** Biomedical Measurements and Instrumentation*	** Biomedical Signal Analysis*
** Artificial Organs*	

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Employer: **Computer Science Dept**., College of Science, King Saud University, **Saudi Arabia**
Job: **Assistant Professor**
Dates: **September 1998 → *August 2004* (*Full-Time*)**
Courses taught:

***** *Computer Architecture*	** Computer Organization and Assembly language*
** Developing Information Systems*	** Management Information Systems*
** Logical Design*	** Digital Electronic*
** Computers for Microbiology students*	** Medical devices for Microbiology students*
** Introduction to Computers and Programming*	

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Employer: Department of Medical Engineering, Damascus University, **Syria**
Job: **Associate Professor** (***Full-Time***) 9/1994→8/1998
9/2006 → now
Courses taught:

***** *Computers in Medicine,*	** Medical Electronics,*
** Maintenance of biomedical equipment*	** Biomedical Sensors & Measurements,*
** Biomedical Instrumentation*	** Cybernetics (Bio-Control)*
** Advanced Electronics for* Masters *program students*	
** Signal Acquisition and Analysis for Masters Program students*	

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Employer: Systems International, (***The Leading Software Company in Syria***), Damascus, **Syria**
Job: Consultant and Analysis Team Leader (***Part-time, 6 hours per day***) 9/1995→8/1998
Duties: Analysis and design of computerized management information systems.
Projects

1- Central Bank of Syria,	**2- Qunaitra Engineers Order,**
3- Damascus University	**4- Ministry of Tourism,**
5- Ministry of Health	**6- The Civil Register,**

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Employer: Electronic Engineering Dept., Sheffield University, **England**
Job: Research Assistant -RA (***Full-time***) 9/1991→12/1992

Publications and Conferences

- Ismael Fatimah S. , Amasha Hani, Bachir Wesam, "Optimized Cylindrical Diffuser Powers for Interstitial PDT Breast Cancer Treatment Planning: A Simulation Study", Hindawi ,BioMed Research International, Volume 2020, Article ID 2061509, 11 pages https://doi.org/10.1155/2020/2061509.
- Ismael F.S., Amasha H.M., Bachir W.H., **"**A diffusion equation based algorithm for determination of the optimal number of fibers used for breast cancer treatment planning in photodynamic therapy", **BIOMEDICAL PHOTONICS** Т. 8, № 4/2019
- Noman Baraa, Al-Imam Wael, Amasha Hani M, (2019), "Linear and Nonlinear Regression between ABO/Rh Blood Groups and Risk of HIV, HBV and HCV among Syrian Donors", Sawt Al-Jamiaa Journal, Islamic University of Lebanon, Issue 13. ISSN 2227-0442.
- Noman Baraa, Al-Imam Wael, Amasha Hani M, (2019), "Short Term Prediction of Donors Flow to Blood Bank via Non-Linear Auto-regression using Neural Networks", Damascus University Scientific Magazine, under press.
- Noman Baraa, Al-Imam Wael, Amasha Hani M, (2019), "Blood Bank Prediction of Blood Needs of Leukemia Patients", Tishreen University Magazine, under press.
- Amasha H M, Al-Nabulsi J, AlNaami B, "A multi-bundle concentric coil wirelessly transferring power to in vivo implantable devices", Journal of Medical Engineering & Technology ISSN 0309-1902 print/ISSN 1464-522X online 2010 Informa UK, Ltd. DOI: 10.3109/03091902.2010.525685
- Al-Naami B, Al-Nabulsi J, Amasha H M and Torry J, "Utilizing wavelet transform and support vector machine for detection of the paradoxical splitting in the second heart sound", Med Biol Eng Comput. 2010 Feb;48(2):177-84. Epub 2009 Nov 19.PMID: 19924461, SPRINGER-VERLAG BERLIN/HEIDELBERG
- Al-Naami B, Bashir A, Amasha H M, and Almalty AM, "Statistical Approach for Brain Cancer Classification Using a Region Growing Threshold", J Medical Systems : (Oct, 2009) PMID 20703544
- Ababneh M, Manasreh A, Amasha H M, "Design of digital controllers for uncertain chaotic systems using fuzzy logic", Journal of the Franklin Institute 346 (2009) 543–556. Elsevier.
- Al-Nabulsi J, Amasha H, Trabsheh B, AlNaami B, "Automatic Control of Electrodes in Lithotripsy Machine", Jordanian Journal of Mech and Ind. Eng., JJMIE (2009).
- Amasha H M, Ghazzawi ZK, Al-Nabulsi J, , "A multi-bundle concentric coil for charging a pacemaker's battery", 34th IEEE COMPUTERS IN CARDIOLOGY International conference, CINC2007, North Carolina, USA September 30th - October 3rd 2007.
- Amasha H M, et al, An Implantable Electronic Kidney, The World Congress on Medical Physics and Biomedical Engineering WC2006, Seoul, South KOREA, August 29th —September 2nd ,2006.
- Amasha H M, *An Enhanced Electrical Impedance Imaging in Two and Three dimensions*, 3rd European International conference on Engineering in Medicine and Biology EMBEC'05, Prague, Czech Republic November 20th -25th , 2005.
- Amasha H M, and Al-Eideh B, *Statistical Case Study of Extracorporeal Shock Wave Lithotripsy*, 23rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society,IEEE-EMBC2001, Istanbul, Turkey, Oct.25-28, 2001.
- Amasha H M, and Attia H, *An Efficient Algorithm for the Kinematic Analysis of Planar Mechanisms*, The 8th IFToMM International Symposium on Theory of Machines and Mechanisms SYROM2001, Bucharest, Romania, August, 28th - September 1st, 2001.
- Amasha H M, and Attia H, *Kinematic Analysis of Planar Mechanisms: A computer Oriented Approach*, 18th Canadian Congress of Applied Mechanics (CANCAM2001), Memorial University of Newfoundland, Canada, June 3rd –7th , 2001.
- Attia H, and Amasha H M, *Kinematic Analysis of Parallel Robot Manipulator*, 18th Canadian Congress of Applied Mechanics (CANCAM2001), Memorial University of Newfoundland, Canada, June 3rd –7th , 2001**.**
- Presenting a poster at the Biological Engineering Society Annual Scientific Meeting (22-24 September 1992) (London, UK)
- Visit to Rotterdam (Holland) to perform *EIT* experiment with deep heating system according to the guidance of BME-COMAC (4-8 December 1989).
- Participating and reading an abstract to the 10th ESHO conference (20-23 September 1989) in Amsterdam.
- Participating in the EIT Workshop (1991) in York (UK).
- Participating and reading a paper to the 2nd EEC Workshop on Electrical Impedance Imaging held in Lyon (France) from 20 to 23 October 1987.

- Amasha H M, Conway J, Anderson A P and Barber D C "Quantitative assessment of impedance tomography for temperature measurements in microwave hyperthermia" *Clinc. Phys. Physiol. Meas*., 9, Suppl.A, 49-53, 1988.
- Amasha H M, Conway J and Anderson A P 1989 Electrical impedance imaging for thermal monitoring of hyperthermia *10th ESHO conference* Amsterdam p50.
- Conway J, Amasha H M and Anderson A P 1990 An assessment of electrical impedance tomography (EIT) for thermal monitoring in human body *Thermology* Vol. 3 No. 3 182- 186
- Van Rhoon G C, Amasha H M and Conway 1991 Non-invasive thermometry: Assessment of electrical impedance tomography (EIT) integrated with the ring applicator *12th ESHO conference* Bergen (Norway).
- Conway J, Hawley M, Mangnall Y, Amasha H, Van Rhoon G C, "Experimental assessment of electrical impedance imaging for hyperthermia monitoring", J. of Clinical physics and physiological measurement: an official journal of the Hospital Physicists' Association, Deutsche Gesellschaft für Medizinische Physik and the European Federation of Organizations for Medical Physics**.** Clin Phys Physiol Meas 1992;13 Suppl A:185-9.PMID: 1587098**.**
- M S Hawley, J Conway, H Amasha, Y F Mangnall, G C van Rhoon, "Electrical impedance tomography: prospects for non-invasive control of deep hyperthermia treatments", Frontiers of medical and biological eng. : the international journal of the Japan Society of Medical Electronics and Biological Engineering. 1992. Front Med Biol Eng. 1992;4(2):119-28.PMID: 1510884
- Hawley M, Cudd P, Amasha H M, Stone D and Mellor P H 1992 Inexpensive PC-based integrated control systems for severely physically disabled people *Proceeding Biol. Engineering Society*
- *Aboras M, Amasha H, Ibraheem I, (2015), "Early Detection of melanoma using multispectral imaging and artificial intelligence techniques", American Journal of Biomedical and Life Sciences, 2015; 3(2-3): 29-33.*
- Shaheen R., Amasha H, Aljamali M, (2015), " Protein Solvent Accessibility Prediction Systems", *American Journal of Biomedical and Life Sciences, 2015; 3(2-3): 21-24.*
- Amasha H M, "Dynamic Characteristics of Implantable Electronic Kidney", Damascus University Engineering Journal, 2015.

- عجيب فاتن، عماشه هاني، الموالدي مصطفى، " تأثير عضلات الطرف السفلي على تغيرات زاوية الركبه في المستوي السهمي للمصابين بالتناذر الفخذي الداغصي"، مجله جامعة تشرين للبحوث والدراسات العلمية، 2012.
- عجيب فاتن، عماشه هاني، الموالدي مصطفى، " دراسة تغير زاوية مفصل الركبة أثناء المشي للمصابين في الرباط المتصالب الأمامي"، مجله جامعة تشرين للبحوث والدراسات العلمية، 2012.
- الصالح ديمة، عماشه هاني، (شباط 2017)، " استخدام خوارزميات الانتشار العكسي في تشخيص متلازمة النفق الرسغي"، مجلة جامعة دمشق للعلوم الهندسية، جامعة دمشق، سوريا.
- نعمان براءة، الإمام وائل، عماشه هاني، (2016)، " كشف الارتباط الاحصائي بين مشعرات التحاليل الدموية (المتغيرات المستقلة) ونتائج زرع الخلايا الجذعية لعلاج سرطان نقي العظام "، مجلة جامعة دمشق للعلوم الهندسية، جامعة دمشق، سوريا.