

CURRICULUM VITAE of

Name: Ali Samir Saad

Nationality: Lebanese

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EDUCATION

Ph.D. in Electrical Engineering: Digital image processing; Sept 1996, Polytechnics school of Engineering - University of Nantes, France.

MSc in Electronics and informatics systems, July 1993, Polytechnics school of Engineering - University of Nantes, France.

MSC in Digital Image processing; Sept 90. IFSIC (*Institute of Computer Sciences and Communication*). University of Rennes, France

B.Sc. of Electrical Engineering, July 1989, University of Saint-Etienne, Academy of Lyon, France

RESEACH AREAS

Medical instrumentation, medical signal processing, medical image processing (Ultrasound , PET, MRI),

EMPLOYMENT

- **October 1996 – July 2000:** postdoctoral associate at National center for macromolecular imaging Baylor Houston, Tx. USA.
- **August 1999 – May 2009:** Assistant professor, King Saud University, College of applied Medical Sciences, Biomedical Technology, Dept.
- **June 2009 – present:** Associate professor, King Saud University, College of applied Medical Sciences, Biomedical Technology, Dept.

TEACHING

1. **General:** Taught over **8 undergraduate** courses and **2 graduate** courses at King Saud University, college of applied Medical Sciences/ biomedical Technology and college of computer sciences.

2. **Undergraduate Courses taught at King Saud University**

BMT211: Biomedical electronics 1.

BMT212: Biomedical electronics 2.

BMT313: Biomedical electronics 3.

BMT 334: Biomedical imaging.

BMT413: Biomedical electronics 5.

BMT 414: Biomedical Electronics 6.

BMT 415: Biomedical signal processing

BMT432: Special topics
BMT 484: Laboratory instrumentation
BMT468: graduation project

3. Graduate Courses taught at King Saud University

BMT 566 : pattern recognition
BMT513 : image processing

PUBLICATION

1. Journals (last 5 articles regardless of the dates)

- **A.S. Saad**, Simultaneous Speckle Reduction and Contrast Enhancement for Ultrasound Images: Wavelet versus Laplacian Pyramid , *PRIA-Pattern Recognition and Intelligence Artificial. Vol. 18, No. 1, pp. 63–70, 2008*,
- **A. S. Saad**, Visual enhancement of digital ultrasound images: Wavelet versus Gauss-Laplace contrast pyramid, **International Journal of Computer Assisted Radiology and Surgery**, vol.2. No. 2, August -pp.117-125, 2007.
- **A. S. Saad**: Orientation determination by wavelets matching for 3D reconstruction of very noisy electron microscopic virus images, **BMC Structural Biology**, 5:9, 2005. <http://www.biomedcentral.com/1472-6807/5/5>.
- **M. Paredes, D. Ferreira, M. Horton, A. Saad, H. Tsuruta, R. Johnston, W. Klimstra, K. Ryman, R. Hernandez, W. Chiu and D. T. Brown**, "Conformational Changes in *Sindbis* virions Resulting from Exposure to Low pH and Interactions with Cells Suggest that Cell Penetration May Occur at the Cell Surface in the Absence of Membrane Fusion", **Virology** 324:373-387 ; 2004.
- **A. S. Saad**: Wavelets filtering for classification of very noisy electron microscopic single particles images- Application on structure determination of VP5-VP19C recombinant. **BMC Structural Biology**, 3:9, 2003.

2. Conferences

- Ali Saad, "Remote Monitoring of Heartbeat and Respiration Rates Using Microwave System", Third Scientific forum, Saudi Medicare, Riyadh international exhibition center, 17-20 May 2009.
- Ali Saad, "Speckle Reduction of Ultrasound Images Using Wavelets Analysis", International Medical and biomedical Engineering symposium IMIBE, Jordan , Aman, March 2006.
- Ali Saad, Ali El Zaart and Ali Al-Mejrad, Speckle Reduction in Digital Ultrasound Images by Multi-Resolution Contrast Enhancement. Kuala Lumpur International Conference on Biomedical Engineering 2004, IFMBE (BioMed 2004), , Kuala Lumpur, Malaysia. September 2-4, 2004
- Ali El Zaart, Ali Al-Mejrad and Ali Saad,

Segmentation of Mammography Images for Breast Cancer Detection.
Submitted to the Kuala Lumpur International Conference on Biomedical Engineering 2004, IFMBE (BioMed 2004), Kuala Lumpur, Malaysia.
September 2-4, 2004 ,

- Ali Saad and Wah Chiu.: Hierarchical wavelet projection matching for orientation determination of low contrast electron cryomicroscopic images of icosahedral virus particles ICASSP-2000, International conference on Acoustics, Speech and Signal Processing, Istanbul, Turkey, June 2000.

3. Funded research (last 3 research proposals regardless of the dates)

- **Primary Investigator**, "medical image segmentation, ultrasound and Xray" grant funded by Research center of College of Applied Medical Sciences, (45,000 for 2 year), academic year 2003/2004.
- **Primary Investigator**, "wavelet segmentation, ultrasound images" grant funded by Research center of College of Applied Medical Sciences, (29,000 for 1 year), academic year 2004/2005.
- **Co-Investigator in a team of 5**, " remote monitoring of heart rate", ASTF(arab science and technology foundation) (35000\$ 2 years) started academic year 2008-2009.