

Sameh A. Salem

Personal Details

Name: Sameh Abdel-Rahaman Ahmed Mohamed Salem
Date of Birth: 27 December 1974
Address: Department of Electronics, Communications, and Computer Engineering, Faculty of Engineering, Helwan University, Helwan, Egypt
Telephone: Home: +2 (02) 237-33-172 Mobile +2 (010) 766-84-77
Email : sameh.salem@liv.ac.uk
Current position: Lecturer Department of Electronics, Communications, and Computer Engineering, Faculty of Engineering, Helwan University

Higher Education

- Feb. 2004 – **The University of Liverpool, Department of Electrical Engineering and Electronics, Ph.D. Data Clustering and Partial Supervision with some Parallel Developments.**
Dec. 2007
Supervisor: Professor Asoke K. Nandi
Research into the area of data clustering which is a common and irreplaceable tool for data analysis. This research includes parallel algorithms for clustering to reduce the execution time which results in a flexible and interactive data exploration, and the use of clustering with partial supervision in Computer-Aided Diagnosis (CAD) which has become one of the major research subjects in medical imaging and diagnostic radiology. In this context, medical images, and microarray datasets have been analysed. Submission date: *October 2007*
- Sept. 2000 – **MSc Helwan University, Department of Communications and Electronics Engineering**
Sept. 2003
Supervisor: Professor Hatem ElBolak.
Research into the problem of automatic parallelization of C programs.
- Sept. 1998 – **Department of Communications and Electronics Engineering, Faculty of Engineering, Helwan University, Preparation courses for the MSc degree.**
July 2000
- Sept. 1993- **BSc Communications and Electronics Engineering.**
May 1998 **Very Good (Second with Honor degree)**
Final Year Project (Excellent): Digital Electronics Training System.
- Award from the Arab Organization for best graduation projects 1998.**

Work Experience

- Feb. 2004 – **The University of Liverpool, Department of Electrical Engineering and Electronics, Teaching Assistant**
Dec. 2007 Assistance in tutorial and laboratory sessions, including report marking.
- Sept. 1998 – **Department of Communications and Electronics Engineering, Faculty of Engineering, Helwan University, Demonstrator**
Jan. 2004

Computing and Other Skills

Computing

Fully competent administrator/user of Windows, Unix/Linux operating systems and all popular word processing and spreadsheet packages (Word, Excel and LyX). Programming skills with C/C++, Java, and Matlab.

Languages

Fluent in Arabic (native) and English.

Selected Publications

S.A. Salem and A.K. Nandi, "Development of Assessment Criteria for Clustering Algorithms," *Pattern Analysis and Applications* Jan 2008.

S.A. Salem, N.M. Salem, and A.K. Nandi, "Segmentation of Retinal Blood Vessels using a Novel Clustering Algorithm (RACAL) with a Partial Supervision Strategy," *Medical & Biological Engineering and Computing*, vol. 45, pp. 261-273, March 2007.

S.A. Salem, L.B. Jack, and A.K. Nandi, "Investigation of Self Organising Oscillator Networks for use in Clustering Microarray Data, accepted by *IEEE Transactions on NanoBioscience*.

S.A. Salem, N.M. Salem, and A.K. Nandi, "Augmentation of a nearest neighbour clustering algorithm with a partial supervision strategy for biomedical data classification," Special Issue on Advances in Medical Decision Support Systems of Expert Systems.

S.A. Salem, L.B. Jack, and A.K. Nandi, "Improving the initialisation and reliability of the self organising oscillator network," in *Proceedings of the 13th European Signal Processing Conference (EUSIPCO 2005)*, (Antalya, Turkey), 04-08 September 2005.

S.A. Salem and A.K. Nandi, "New assessment criteria for clustering algorithms," in *IEEE international workshop in Machine Learning For Signal Processing (MLSP 2005)*, (Mystic, CT, USA), pp. 285-290, 28-30 September 2005.

S.A. Salem and A.K. Nandi, "Novel clustering algorithm (RACAL) and a partial supervision strategy for classification," in *IEEE international workshop in Machine Learning For Signal Processing (MLSP 2006)*, (Mynooth, Ireland), pp. 313-318, 06-08 September 2006.

S.A. Salem, N.M. Salem, and A.K. Nandi, "Segmentation of retinal blood vessels using a novel clustering algorithm," in *Proceedings of the 14th European Signal Processing Conference (EUSIPCO 2006)*, (Florence, Italy), 04-08 September 2006.

S.A. Salem and A.K. Nandi, "Parallel nearest neighbour clustering algorithm (PNNCA) for segmenting retinal blood vessels," in *the 25th IASTED conference on Parallel and Distributed Computing and Networks (PDCN 2007)*, (Innsbruck, Austria), pp. 263-268, 13-15 February 2007.

S.A. Salem and A.K. Nandi, "A new scalable and efficient parallel algorithm (PRACAL) for clustering large datasets," in *the 19th IASTED conference on Parallel and Distributed Computing and Systems (PDCS 2007)*, (Massachusetts, USA), 19-21 November 2007.

S.A. Salem, N.M. Salem, and A.K. Nandi, "Development of a partial supervision strategy to augment a nearest neighbour clustering algorithm for biomedical data classification," in *the international conference on Bio-inspired Systems and Signal Processing (BIOSIGNALS 2008)*.