

Dr Neamat El Gayar

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EDUCATION

Ph.D.- Computer Science and Automatic Control 1999

Faculty of Engineering, University of Alexandria, Egypt (Joint supervision from Institute of Neural Information Processing, Faculty of Engineering and Computer Science, University of Ulm, Germany)

Thesis Title: Fuzzy Neural Network Models for Unsupervised and Confidence-Based Learning

M.Sc. - Computer Science and Automatic Control 1993

Faculty of Engineering, University of Alexandria, Egypt

Thesis Title: New Algorithms for Unsupervised Learning in Artificial Neural Networks

B.Sc. - in Engineering 1989

Computer Science and Automatic Control -Honors

Faculty of Engineering, University of Alexandria, Egypt

RESEARCH INTERESTS

My research interests are mainly in the fields of data mining, intelligent data analysis, pattern recognition, machine learning and multiple classifier systems.

EMPLOYMENT RECORD

Associate Professor

*Faculty of Computers and Information, Cairo University,
Cairo (Egypt)*

April 2007

Associate Professor

Nile University, Cairo (Egypt)

Sept. 2008 –August
2010

➤ **Head Data Mining and Machine Learning Group**

(Center of Informatic Sciences)

➤ **Director of the Software Engineering graduate program**

(School of Communication and Information Technology)

Assistant Professor

*Faculty of Computers and Information, Cairo University,
Cairo (Egypt)*

Sept. 2000-April 2007

Assistant Professor

*Faculty of Media Engineering and Technology, German
University in Cairo, Cairo (Egypt)*

Sept. 2003-Feb. 2004

Assistant Professor

*Faculty of Engineering, University of Alexandria,
Alexandria (Egypt)*

May 1999- Sept. 2000

Research Assistant

*Faculty of Engineering and Computer Science, University of
Ulm, Ulm (Germany) (DAAD scholar).*

Sept. 1995- Sept. 1997

Teaching Assistant

*Faculty of Engineering, University of Alexandria, Alexandria
(Egypt)*

Oct. 1989- May 1999

TEACHING PROFILE / STUDENT SUPERVISION:

I have more than 20 years of teaching experience for undergraduate students in Computer science and Computer Engineering. Among the subject I have taught are: Computers and Information Skills, Object Oriented Programming in C++ , Digital Systems, Introduction to Computers and Programming, Introduction to Computers, Computer Arithmetic, Computer Systems and Fuzzy and Neural Models. I also taught postgraduate students for more than 10 years in the field of Machine Learning, Data Mining, Pattern Recognition and Fuzzy Systems. I have a wide experience in training courses for nonacademic students of different background. I supervised numerous B.Sc. graduation projects and more than 30 M.Sc and PhD. thesis.

CERTIFICATION AND TRAINING:

I have received various training courses for improving managerial skills and academic competence. Among these courses are: Team Communication, Basics of Management and Leadership, Time Management and Planning, Strategic Management, Conflict Management and Negotiations, Finance for Non-Financials. I also attended training courses in Communication Skills, Crisis Management, Scientific Writing, Grant and proposal writing, professional ethics and International Publications and Curriculum Design.

INVITED TALKS

- "Distributed Machine Intelligence Models for Pervasive Systems", *Workshop on Ubiquitous Computing*, Nile University, Egypt, 25th October 2009.
- "Female scientists in IT: - Problems and Challenges", *Workshop on Female Natural scientists with different cultural backgrounds* , Berlin, Germany, 19 October 2007.
- "Highlights on Data Mining and Machine learning research at the FCI", *Abteilungskausur*, Kleinwalsertal, Germany 27-30 July , 2008.
- " Highlights on Data Mining and Machine learning research at the FCI ", *Valeo Meeting*, Cairo, Egypt July, 8th 2008
- "Confidence based Learning in Artificial Neural Networks", *Hirota Lab.*, Dept. C.I. & S.S., Tokyo Institute of Technology, Yokohama , Japan , July 27th, 2004.
- "Fuzzy-teacher-based Learning for an Ensemble of Neural Networks". *International School on Neural Networks, 7th course on : Ensemble Methods for Learning Machines*, Vietri sul Mare, Salerno, Italy, September 22-28, 2002.

PROGRAM COMMITTEE AND CONFERENCE ORGANIZATION:

Conference Organization

- Program Chair and organizer of the *International Workshop on Multiple Classifier Systems (MCS 2010)*, April 7-9, 2010.
- Program Chair and organizer of the *4th IAPR TC3 International Workshop on Artificial Neural Networks in Pattern Recognition (ANNPR 2010)*, April 11-13, 2010.
- Organized a 1 day workshop within the activities of the IEEE Computational Chapter in Egypt, *NU-IEEE Int. Workshop on Computational Intelligence, Pattern Recognition, and Classifier Systems*, April 10th, Cairo, Egypt, 2010.
- Organized a *special track on Multiple Classifier Systems* in *4th International Conferences on Informatics and Systems INFOS'2006*, Faculty of Computers and Information, Cairo University, March 25-27, 2006.
- Organized a *special track on Computational Methods for the Tourism Industry* in *5th International Conferences on Informatics and Systems INFOS'2007*, Faculty of Computers and Information, Cairo University, March 24-26, 2007.
- Organized a *special track on Data mining and Computer Modeling for the Tourism Industry* in *6th International Conference on Informatics and Systems INFOS'2008*, Faculty of Computers and Information, Cairo University, March 27-29, 2008.
- Organized a *special session on Data Mining in Mobile and Ubiquitous Environments* in the *IEEE Symposium on Computational Intelligence and Data Mining (CIDM 2011)*.
- Organized a *special session on Pattern recognition, Machine Learning and Applications* in the *11th International Conference on Information Sciences, Signal Processing and their Applications (ISSPA2012)*, Montreal, Canada, July 3-5, 2012

Scientific Committee:

- Member of the Scientific committee of the ICGST International Conference on Graphics, Vision and Image Processing (GVIP-05), 19-21 December 2005, Cairo, Egypt
- Member of the Session program Committee for the Second International Conference on Intelligent Computing and Information Systems, March 5-7 2005 Cairo, Egypt, Special Session on "Wavelets in Signal/Image Processing"
- Member of the executive, publishing and the organizing committee of International Conferences on Informatics and Systems: INFOS 2010, INFOS 2008, INFOS 2007, INFOS 2006, INFOS2005, INFOS2004, INFOS2003.
- Member of the Scientific Committee of ANNPR 2006, ANNPR 2012, CIBEC 2010, ICIAR 2010, ICIAR 2011, ICIAR, 2012, ICPR 2010, ICPR 2011, MCS 2011, ICPR 2012, ISSPA 2012

Review for Journals & Proposals

I acted as a reviewer for the following Journals:

- International Journal of Graphics, Vision and Image Processing, for the Special Issue on wavelets in signal/image processing.
- Egyptian Informatics Journal, Elsevier
- WIREs Data Mining and Knowledge Discovery: <http://wires.wiley.com/dmkd>

I acted as a referee for the **EU-Egypt Innovation Fund – Grant Scheme 2 & Grant Scheme 1**, Research, Development and Innovation Programme (RDI) Implementation Office (PIO) on behalf of the Ministry of Scientific Research (MoSR) in Egypt.

OTHER PROFESSIONAL ACTIVITIES:

- I am currently the chair of the IAPR Technical Committee 3 (TC3) on Neural Networks & Computational Intelligence for the period 2012-2014. I also acted as the Vice chair of TC3 IAPR from 2009 until 2011)
- I acted as the Director of the Software Engineering graduate program at the Nile University Egypt (September 2008-unil August 2010)
- I was a Member of the selection committee for the DAAD (German Academic Exchange Service) long term and short-term scholarships (September 2000- August 2010)
- I am a Member of the Founding Group for the German University in Cairo, GUC (since October 2001).
- I was a Member of the Egyptian academic/scientific consultancy team for the GUC (from October 2000 until the inauguration of the University in October 2003)
- I acted as the President of the DAAD (German Academic Exchange Service) Alumni Association. (September 2005 – August 2010)
- I was a member of the “Frauen Initiative, University of Ulm” which is an organization to promote female students studying Computer Science and Information Technology (September 1995-September 1997).