Curriculum Vitae

• **Personal Data**

Title & Name: Dr. Ahmed Rafat Abas Mohamed Salem

Birth Date: Jul. 23, 1971

Current Job: Assistant Professor - Computer Science Dept. – College of Computer in Lith - Umm Al-Qura University – Saudi Arabia

Marital Status: Married

Nationality: Egyptian

Permanent Work Address: Zagazig University – Faculty of Computers & Informatics – Medan EL–Zeraa – Zagazig – Egypt

e-mail: **arabas@zu.edu.eg** **or** **ahmed_rafat_abas@yahoo.co.uk** **or** **armohamed@uqu.edu.sa**

Web: http://www.arabas.name.eg/page.asp?id=43 or http://uqu.edu.sa/staff/ar/4320022

• **Academic Degrees**

1. **PhD. Degree in Computer Science** – School of Engineering, Computer Science and Mathematics – Exeter University - UK – Feb. 2005.

2. **MSc. Degree in Computer Engineering** - Faculty of Engineering - Cairo University – Egypt - Jan 1999.

3. **BSc. Degree in Electrical Engineering** – Excellent with Honor Degree -Faculty of Engineering - Zagazig University - Egypt - May 1993.

- ## **Current & Previous Jobs**

1. **Assistant Professor**

   Computer Science Dept. – College of Computer in Lith – Umm Al-Qura
   University – Saudi Arabia - 1 Sept. 2012 till now.

2. **Assistant Professor**

   Computer Science Dept. – University College in Lith – Umm Al-Qura
   University – Saudi Arabia - 11 Jan. 2011 : 31 Aug. 2012.

3. **Assistant Professor**

   Computer Science Dept. - Faculty of Computers & Informatics – Zagazig
   University – Egypt - 31 May 2005 till now.

4. **Assistant Lecturer**

   Computer Science Dept. - Faculty of Computers & Informatics - Zagazig
   University – Egypt - 6 April 1999 : 30 May 2005.

5. **Teaching Assistant**

   Computer Science Dept. - Faculty of Computers & Informatics - Zagazig
   University – Egypt - 22 November 1998 : 5 April 1999.

6. **Researcher Assistant**

   Computers & Systems Dept. - Electronics Research Institute – Egypt - Oct 1994
   : Dec 1998.

7. **Assembly Language Programmer**

   Development Group Misr Co. – Egypt - Jan 22: Jun 13 – 1994.

- ## **Publications**

- ### **Conferences**

1. Abas, A.R., "Incremental general regression with expectation maximization for learning finite mixtures using data with missing values", *Proceedings of the 2013 International Conference on Artificial Intelligence (ICAI'2013)*, vol. *, pp. **-**, Sousse, Tunisia, 22-24 Jun. 2013. In Press.

2. Abas, A.R., "Using Particle Swarm Optimization and Locally-Tuned General Regression Neural Networks with Optimal Completion for Clustering Incomplete Data Using Finite Mixture Models", *Proceedings of the 12th International Arab Conference on Information Technology (ACIT'2011)*, vol. 2, pp. 333-341, Riyadh, Saudi Arabia, 11-14 Dec. 2011.

3. El-Henawy, I. M., Kamal, A. H., Abdelbary, H. A., and Abas, A. R., "Predicting Stock Index Using Neural Network Combined with Evolutionary Computation Methods", *Proceedings of the 7th International Conference on INFOrmatics and Systems (INFOS 2010)*, pp. 124-129, Cairo, Egypt, Mar. 2010.

4. Rafat, A., "Locally Tuned General Regression for Learning Mixture Models Using Small Incomplete Data Sets with Outliers and Overlapping Classes", *Proceedings of the IDEAL 2004*, Exeter, UK, 2004, In: Yang, Z.R., Everson, R., and Yin, H. (Eds.), Springer-Verlag, LNCS 3177, pp. 774-779, 2004.

5. Appass, A.R, Darwish, A.M., El-Desouki, A.I. And Shaheen, S.I., "Speeding the Vector Search Algorithm for Regional Color Channel Features Based Indexing and Retrieval System", *Proceedings of the 12th International Conference on Industrial & Engineering Applications of Artificial Intelligence & Expert Systems*, Cairo, Egypt, May 1999.

• **Journals**

1. Abas, A.R., "On determining efficient finite mixture models with compact and essential components for clustering data", Egyptian Informatics Journal, vol. 14, no. 1, pp. 79-88, Mar. 2013.

2. Abas, A.R., "Unsupervised learning of mixture models based on swarm intelligence and neural networks with optimal completion using incomplete data", Egyptian Informatics Journal, vol. 13, no. 2, pp. 103-109, Jul. 2012.

3. Abas, A.R., "Using Incremental General Regression Neural Network for Learning Mixture Models from Incomplete Data", Egyptian Informatics Journal, vol. 12, no. 3, pp. 185-196, Nov. 2011.

4. Abas, A.R., "An Algorithm for Unsupervised Learning and Optimization of Finite Mixture Models", Egyptian Informatics Journal, vol. 12, no. 1, pp. 19-27, Mar. 2011.

5. Abas, A.R., "An Incremental General Regression Neural Network for Missing Value Estimation", The Egyptian Computer Journal, vol. 37, no. 2, pp. 1-23, Dec. 2010.

6. Abas, A.R., Hefnawy, A.A., "Online speech to Arabic sign language translation system", Engineering Research Journal, vol. 128, pp. E15-E23, Dec. 2010.

7. Abas, A.R., "Using General Regression with Local Tuning for Learning Mixture Models from Incomplete Data Sets", Egyptian Informatics Journal, vol. 11, no. 2, pp. 49-57, Dec. 2010.

8. Appass, A.R, Darwish, A.M., El-Desouki, A.I. And Shaheen, S.I., "Image indexing using composite regional color channels features", The Egyptian Computer Journal, vol. 26, Dec. 1998. See also: Proc. SPIE, Storage and Retrieval for Image and Video Databases VII, vol. 3656, Jan. 1999.

- **Books**

1. Rafat, A., "An Adaptive Approach for Clustering Incomplete Data Sets: An Application To Health Inequality Analysis", Germany: LAP LAMBERT Academic Publishing AG & Co. KG, 2010. **ISBN:** 978-3-8383-0579-0

2. Salem, A.R.A.M., "Adaptive Mixture Models For Analysing Small, Sparse And Incomplete Data Sets; An Application To Health Inequality Analysis", PhD. Degree Thesis, Computer Science Department, School of Engineering, Computer Science and Mathematics, Exeter University, Exeter, UK, Feb. 2005.

3. Appass, A.R., "Image Indexing Using Regional Color Channels Features", MSc. Degree Thesis, Computer Engineering Department, Faculty of Engineering, Cairo University, Egypt, 1999.

IS&T: The society of Imaging Science and Technology.

SPIE: The International Society for Optical Engineering.

IEA/AIE-99: The 12th International Conference on Industrial and Engineering

Applications of Artificial Intelligence and Expert System.

- **MSc. Dissertations Supervised**

1. **Abdelbary H.A.H., August 2010**

   Dissertation Title: Data Mining Using Neural Networks

   University of Zagazig, Faculty of Computer & Informatics, Computer Science

   Dept.

- **Journal Reviewer**

1. **Journal of Asia Pacific Management Review**
2. **Egyptian Informatics Journal**
3. **International Arab Journal for Informatics**

- **Teaching Experience**

Since 2005 up till now, I have taught the following courses:

a. **Undergraduate Level**
   1. Structured Programming with C++.

   2. Data Structures and Algorithms with C++.

3. Object-Oriented Programming with C++.

4. Artificial Intelligence.

5. Computer Organization and Assembly Language Programming.

6. Parallel and Distributed Computing Systems.

7. Cryptography and Network Security.

8. Programming with C#.Net.

b. Post graduate Level

  1. Neural Networks.

  2. Information Retrieval.

  3. Parallel Algorithms Design and Analysis

• Research

  1. Speech Recognition

  2. Artificial Intelligence

  3. Pattern Recognition

  4. Neural Networks

  5. Data Mining

• Public Seminars

١. **دور الطالب فى الجودة و الإعتماد الأكاديمى.** الكلية الجامعية بالليث ، جامعة أم القرى ، المملكة العربية السعودية ، ديسمبر/٢٠١١.

2. **Using Particle Swarm Optimization and Locally-Tuned General Regression Neural Networks with Optimal Completion for Clustering Incomplete Data Using Finite Mixture Models.** College of Computer science, Umm Al-Qura University, Saudi Arabia, Sept. 2012.

• Administrative Experience

1. Supervising the student athletic activities in the Faculty of Computers & Informatics – Zagazig University since 2005 - 2009.

2. Leading a team of teaching assistants and clerics to enter and review students' final exams results on the university web-based student affairs Information system in the Faculty of Computers & Informatics – Zagazig University in 2008.

3. Organising the weakly research seminar in the Faculty of Computers & Informatics – Zagazig University since 2008 - 2010.

4. Being a head of a control in the undergraduate level since 2008 - 2009.

5. Supervising a graduation project of a team of students who participates and wins the best project prize in the Windows 7 field of the Microsoft Egypt Imagine Cup Competition, 2009.

6. Supervising four graduation projects which are selected to receive funds from the Information Technology Industry Development Agency, Ministry of Information Technology and Communication, Egypt, 2009.

7. Being a director of the Information Technology Management education program for undergraduate students in the Faculty of Computers and Informatics at Zagazig University, in 2009.

• Training Experience

1. **System Analysis, Design, and Management with Computers.**
   Royal Scientific Society – Jordan - Mar : Aug 1995.

2. **SPSS**
   Institute of National Planning – Cairo – Egypt – Jul. 1999.

3. **TOEFL II English Course**
   American University in Cairo - Jan : Apr 2000.

4. **Summer School on Pattern Recognition**
   British Computer Society - Exeter University – Exeter – UK - Jul. 28: Aug. 1, 2003.

5. **University Teaching Skills**
   Zagazig University – Zagazig – Egypt – May 2005

6. **Communication Skills**
   Faculty and Leadership Development Centre - Zagazig University – Zagazig –

Egypt – Apr. 2005

7. **Presentation Skills**

Faculty and Leadership Development Centre - Zagazig University – Zagazig –
Egypt – Apr. 2005

8. **Course Preparation**

Faculty and Leadership Development Centre - Zagazig University – Zagazig –
Egypt – Apr. 2005

9. **Introduction to Bioinformatics**

Zagazig University – Zagazig – Egypt - 2009

10. **Molecular Biology for Biologists (Advanced)**

Zagazig University – Zagazig – Egypt – 2009

11. **JAVA Programming (SE, EE, ME) Platforms**

Hi-Q Academy for Learning Solutions (*Microsoft* Gold Certified Partner) –
Zagazig - Egypt – 2009

12. **Scientific Conference Organization**

Faculty and Leadership Development Centre - Zagazig University – Zagazig –
Egypt – Jul. 2011

13. **International Publishing of Research**

Faculty and Leadership Development Centre - Zagazig University – Zagazig –
Egypt – Jul. 2011

14. **The Credit Hour Systems**

Faculty and Leadership Development Centre - Zagazig University – Zagazig –
Egypt – Aug. 2011

15. **Time Management**

Faculty and Leadership Development Centre - Zagazig University – Zagazig –
Egypt – Aug. 2011

16. **Legal and Financial Aspects in University Environment**

Faculty and Leadership Development Centre - Zagazig University – Zagazig –
Egypt – Aug. 2011

17. **Strategic Planning**

Faculty and Leadership Development Centre - Zagazig University – Zagazig –
Egypt – Aug. 2011

• Software Experience

1. MS Windows & Office.

2. FORTRAN, BASIC, PASCAL, ASSEMBLY, C++, Visual C++, C#, and JAVA.

3. MatLab.

• Speaking Languages

1. Arabic.   2. English.

• Awards

- **Excellency in Research Award**

  Cairo University – Cairo – Egypt - 1999