Curriculum Vitae

EMAD HAMDY AHMED MABROUK

Assistant Professor:
Mathematics Department, Faculty of Science, Assiut University, 71516 EGYPT.

Manager:
Information Technology Unit, Faculty of Science, Assiut University, 71516 EGYPT.

Vice-Manager:
High Availability Super Computing Center, Faculty of Science, Assiut University, 71516 EGYPT.

Personal Statements

Name	:	Emad Hamdy Ahmed Mabrouk
Sex	:	Male
Date of Birth	:	Sep. 17, 1975
Nationality	:	Egypt
Marital Status	:	Married
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Fields of Interest

Artificial Intelligence, Distributed Computation, Global Optimization, Image Processing and Segmentation, Meta-Heuristics, Numerical Analysis, Operation Research.

Education

Apr. 2007 – Mar. 2011	:	**Doctor of Informatics "Artificial Intelligence":** Graduate School of Informatics, Kyoto University, Japan.
Oct. 1999 – Mar. 2003	:	**Master of Science, Mathematics "Numerical Analysis":** Mathematics Dept., Faculty of Science, Assiut University, Egypt.
Oct. 1993 – Jul. 1997	:	**Bachelor of Science "Mathematics":** Mathematics Dept., Faculty of Science, Assiut University, Egypt.

Work History

Oct. 2013 – Present	:	**Manager:** Information Technology Unit, Faculty of Science, Assiut University, EGYPT.
Sep. 2012 – Present	:	**Committee Member:** Quality Assurance and Accreditation Unit, Faculty of

Science, Assiut University, EGYPT.

Jul. 2012 – Present : **Statistical Analysis Vice-Manager:** Assiut University Proficiency Testing Provider Center, Assiut University, EGYPT.

May 2011 – Present : **Vice-Manager:** High Availability Super Computing Centre, Faculty of Science, Assiut University, EGYPT.

May 2011 – Present : **Assistant Professor:** Mathematics Dept., Faculty of Science, Assiut University, EGYPT.

Apr. 2005 – Mar. 2007 : **Member in Quality Assurance Unit:** Mathematics Dept., Faculty of Science, Assiut University, EGYPT.

Apr. 2003 – Apr. 2011 : **Assistant Lecturer:** Mathematics Dept., Faculty of Science, Assiut University, EGYPT.

Oct. 1997 – Mar. 2003 : **Demonstrator:** Mathematics Dept., Faculty of Science, Assiut University, EGYPT.

Projects, Fellowships and Awards

- **Project of Assiut University Proficiency Testing Provider Center**, Assiut University, Egypt.
- **Project of High Availability Super Computing Lab**, Faculty of Science, Assiut University, Egypt.
- **Project of Teaching Mathematics through Thin-Client Technology**, Mathematics Dept., Faculty of Science, Assiut University, Egypt.
- **Doctoral Scholarship**, from Egyptian Government to obtain the Doctor Degree from Kyoto University, Kyoto, Japan, Apr. 2007 to Mar. 2011.
- **Doctoral Fellowship**, from Kyoto University, Japan, to make scientific discussion with professors at School of Computing, University of Portsmouth, Feb. 2008 to Mar. 2008,.

Skills

- **Languages:**
  - Arabic (mother language).
  - English (very good spoken and written).
  - German (first level).
  - Japanese (first level).
- **Computer Experience:**
  - I am proficient in programming languages: MATLAB, C++, MATHEMATICA and FORTRAN.
  - I am good at translating any numerical problem to computer code by these languages.
  - Excellent experience in readymade packages: Windows, Microsoft Office and Miktex packages for Latex.
  - I have good experiences in using Statistical Analysis software, e. g., SPSS and MINITAB.

Research and Teaching

May. 2011 – Present : ○ Assisting Professor at Mathematics Dept., Faculty of Science, Assiut

University, Egypt.

- I Teach the Following Courses:
  - Algorithms Design and Analysis.
  - Artificial and Computational Intelligence.
  - Computer Animations.
  - Database Systems.
  - Distributed Computations.
  - Introduction to Computer Science and Programming.
  - Mathematical and Statistical Packages.
  - Neural Networks.
  - Numerical Analysis.
  - Operation Research.
  - Programming With MATLAB.
  - Scientific Computing.

Apr. 2008 – Mar. 2011 : Research Assistant at Dept. of Applied Mathematics and Physics, Graduate School of Informatics, Kyoto University, JAPAN.

Feb. 2008 – Mar. 2008 : Visiting Researcher at School of Computing, University of Portsmouth, UK.

Sep. 2007 – Mar. 2008 : Research Student at Dept. of Applied Mathematics and Physics, Graduate School of Informatics, Kyoto University, JAPAN.

Oct. 1997 – Mar. 2007 :

- Teaching Assistant at Mathematics Department, Faculty of Science, Assiut University, EGYPT.
- I was selected to assist in teaching the following courses:
  - Advanced Calculus.
  - Differential Equations.
  - Dynamical Systems.
  - Introduction to Computer Science.
  - Linear Algebra and Geometry.
  - Newtonian Mechanics.
  - Numerical Analysis.
  - Operation Research.
  - Probabilities and Statistics.
  - Programming Languages.

Conferences

- The 4th International Conference for Young Scientists in Basic and Applied Science (ISCYR2014), April 29-30, 2014, Assiut University, Assiut, EGYPT.
- The 12th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2013), June 16-20, 2013, Toki Messe, Niigata, JAPAN.
- The 16th International Symposium on Artificial Life and Robotics (AROB16), January 27-29, 2011, Beppu, Oita, JAPAN.

- The 6th International Conference on Modelling Decisions for Artificial Intelligence (MDAI 2009), November 30 - December 2, 2009, Awaji Island, JAPAN.
- The 5th International Conference on Soft Computing as Transdisciplinary Science and Technology (CSTST'08), October 27-31, 2008, Cergy-Pontoise, Paris, FRANCE.
- The 7th International Conference on Optimization: Techniques and Applications (ICOTA7), December 12-15, 2007, Kobe International Conference Centre, JAPAN.
- The International Conference on Mathematical Analysis and Its Applications, January 3-6, 2006, Assiut, EGYPT.

Publications

1. Y.S. Raslan, E. Mabrouk and A. Ayman, Generating Mathematical Threshold Using Immune System Programming Algorithm for Medical Image Segmentation, International Conference of Pure and Applied Sciences (ICPAS2015), Luxor, EGYPT, 28-30 March 2015.
2. Y.S. Raslan, A. Hedar and E. Mabrouk, Immune System Programming with Directed Mutations, Bulletin of the Faculty of Science, Assiut University, (to appear) 2015.
3. D. Elzanaty, E. Mabrouk, M.I. Attia and H.M. El-Hawary, *Solving the Course Scheduling Problem for the Credit Hours System Using the Genetic Algorithms Approach*, Accepted in Proc. of 4th International Conference for Young Scientists in Basic and Applied Science (ISCYR2014), Assiut University, Assiut, EGYPT, 2014.
4. A. Ayman, E. Mabrouk and Z. Elnomery, *Adaptation of Region Growing Thresholds using Memetic Programming Algorithm*, Proc. of the 12th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2013), Toki Messe, Niigata, Japan, 2013.
5. E. Mabrouk, A. Hedar and M. Fukushima, *Memetic Programming Algorithm with Automatically Defined Functions*, submitted to Memetic Computing, 2011.
6. E. Mabrouk, *Meta-Heuristics Programming and Its Applications*, PHD Thesis, Graduate School of Informatics, Kyoto University, Japan, 2011.
7. E. Mabrouk, J.C. Hernandez-Castro and M. Fukushima, Efficient *Pseudorandom Number Generators by Means of Tabu Programming*, Proc. of the 5th International Conference on Intelligent Computing and Information Systems, Cairo, EGYPT, 2011.
8. E. Mabrouk, J.C. Hernandez-Castro and M. Fukushima, *Prime Number Generation Using Memetic Programming*, Artificial Life and Robotics, Vol. 16, pp. 53-56, 2011.
9. A. Hedar, E. Mabrouk and M. Fukushima, *Tabu Programming: A New Problem Solver through Adaptive Memory Programming over Tree Data Structures*, International Journal of Information Technology and Decision Making, Vol. 10, pp. 373-406, 2011.
10. E. Mabrouk, A. Hedar and M. Fukushima, *Tabu Programming: A Machine Learning Tool Using Adaptive Memory Programming*, Proc. of the 6th International Conference on Modeling Decisions for Artificial Intelligence, Awaji Island, JAPAN, pp. 187-198, 2009.
11. E. Mabrouk, A. Hedar and M. Fukushima, *Memetic Programming with Adaptive Local Search Using Tree Data Structures*, Proc. of the 5th International Conference on Soft Computing as Transdisciplinary Science and Technology, Cergy-Pontoise, FRANCE, pp. 258-264, 2008.
12. A.A. Salama, E. Hamdy (E. Mabrouk), *Higher Order Methods for Solving Retarded and Volterra Functional Differential Equations via Automatic Differentiation*, International Conference on Mathematical Analysis and Its Applications, Ismail, M. (Ed.), 2006.
13. A.A. Salama, E. Hamdy (E. Mabrouk), *Interval Schemes for Singularly Perturbed Initial Value*

Problems, Reliable Computing, Vol. 11, No. 1, pp. 41-58, 2005.

14. E. Hamdy (E. Mabrouk), *Interval Algorithms for Differential Equations*, MSC Thesis, Mathematics Dept., Faculty of Science, Assiut University, Egypt , 2003.

Referee's

1. **Masao Fukushima, Professor**
   Department of Information Systems and Mathematical Sciences
   Faculty of Information Sciences and Engineering
   Nanzan University, Seto, Aichi 489-0863, Japan
   E-Mail: fuku@nanzan-u.ac.jp

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   Mathematics Department
   Faculty of Science
   Assiut University, Assiut 71516, Egypt
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3. **Hassan El-Hawary, Professor, Dean of Faculty of Science, Assiut University, Egypt**
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