

Brief Biographical Data

GENERAL INFORMATION

Name: Nagwa Mohamed Omar

Occupation: Lecturer, Faculty of Computers and Information, Assiut University, Egypt

Address: Faculty of Computers and Information, Assiut University, Egypt.

Email: nagwa_omar@hotmail.com

EDUCATION

2008 Faculty of Engineering, Assiut University, Assiut, Egypt

Ph. D. Electrical Engineering (Computer Engineering).

Thesis Title "*Color Image Segmentation Using Region-Based Deformable Net for Robotics Applications*".

- Faculty of Engineering, Assiut University, Assiut, Egypt

M. Sc. Electrical Engineering (Computer Engineering).

Thesis Title "*Frequency Coding Information in Pulse Coupled Neural Networks*".

- Faculty of Engineering, Assiut University, Assiut, Egypt

B.Sc. Electrical Engineering (*Control and Computer Section*)

AREAS OF SPECIALIZATION AND INTEREST

- Computer Networks
- Wireless sensor Networks
- Computer Vision
- Robotics
- Neural Networks

PUBLICATIONS

1. Hosny M. Ibrahim, Nagwa M. Omar, Ebram K. William, "Detection and Removal of Gray, Black and Cooperative Black Hole Attacks in AODV Technique", International Journal of Advanced Computer Science and Applications (IJACSA) ,Volume 6, No. 5, pp. 60:70, May 2015
2. Mahmoud Afifi, Khalid Fathy, Hosny M. Ibrahim, Nagwa M. Omar "A Low-cost System for Generating Near-realistic Virtual Actors", 3D Research Journal, Springer, Volume 6, Issue 2, pp 6:16, April 2015
3. Hosny M. Ibrahim, Nagwa M. Omar, Ebram K. William " A Secure Technique for Construction and Maintenance of a Trusted Mobile Backbone Network in MANET", The 12th IEEE International Conference on Networking, Sensing and Control, ICNSC15, Taipei, Taiwan, April 2015
4. Mahmoud Afifi, Khalid Fathy, Hosny M. Ibrahim, Nagwa M. Omar, Fast Video Completion using Patch-based Synthesis and Image Registration, ISPACS2014 in Kuching, Sarawak, Malaysia, 2014
5. Mahmoud Afifi, Khalid Fathy, Hosny M. Ibrahim, Nagwa M. Omar, Video Face Replacement System Using a Modified Poisson Blending Technique, ISPACS2014 in Kuching, Sarawak, Malaysia, 2014
6. Hosny M. Ibrahim, Nagwa M. Omar, Ebram K. William "A Lightweight Technique to Prevent Worm Hole Attacks in AODV", International Journal of Computer Applications (IJCA), Volume 104 , No.6, October 2014.
7. Hosny M. Ibrahim, Nagwa M. Omar, Ali H. Ahmed, "Improving Wireless Sensor Networks Performance by Using Clustered Virtual Rings", International Journal of Ad hoc, Sensor & Ubiquitous Computing (IJASUC), vol. 3, no. 3, pp. 47-67, June 2012.
8. Hosny M. Ibrahim, Nagwa M. Omar, Ali H. Ahmed, "Utilizing Genetic Algorithm in a Sink Driven, Energy Aware Routing Protocol for Wireless Sensor Networks", Advances in Computer Science, Engineering & Applications ,Proceedings of the Second International Conference on Computer Science, Engineering & Applications (ICCSEA 2012), Springer, New Delhi, India, vol. 167, pp. 447-456, May 2012.
9. Khaled M. Shaaban, and Nagwa M. Omar, "3D information extraction using Region-based Deformable

- Net for monocular robot navigation”, Journal of Visual Communication and Image Representation, , Elsevier, vol. 23, no. 2, pp. 397-408, 2012.
10. Nagwa M. Omar and Samia A. Ali, Efficient Wireless Sensor Network Transport Protocol, accepted for publication in AEAS 37th annual conference, December, 2010
 11. Khaled M. Shaaban, and Nagwa M. Omar, "Region-based Deformable Net for Automatic Color Image Segmentation", Journal of Image and Vision Computing, Elsevier, vol. 27, no. 10, pp. 1504-1514, Sep. 2009.
 12. Khaled M. Shaaban, and Nagwa M. Omar, "3D Information Extraction using Region-Based Deformable Net for Monocular Robot Navigation", Journal of Engineering Science, Assiut University, Egypt, vol. 35, no. 4, pp. 975-994, July 2007.
 13. Khaled M. Shaaban, and Nagwa M. Omar, "Automatic Color Image Segmentation Using Deformable Net", Journal of Engineering Science, Assiut University, Egypt, vol. 35, no. 2, pp. 457-476, March 2007.
 14. Khaled M .Shaaban, Samia A. Ali, Yousef B. Mahdy and Nagwa M. Omar, “Recording Algorithm For Weakly Pulse Coupled Neural Network”, IEEE International Joint Conference on Neural Networks (IJCNN’02), Honolulu, Hawaii, USA, pp.149-154, May 2002.

TEACHING EXPERIENCE

Undergraduate:

- Network Analysis and Design
- Computer Networks
- Web based Information Systems
- E-Commerce
- Website Development
- Introduction to Computer Science

Postgraduate:

- Network Forensics
- Data Compression
- Database Concepts

Graduation projects supervision

- Software framework for control and communication of mobile robots (2009/2010)
- Activating Team of Mobile Robots (2010/2011)
- Reliable multi-hop network connection using team of mobile robots (2010/2011)
- Mapping and Exploring using Team of Mobile Robots (2010/2011)
- Building Visual Maps with a Team of Mobile Robots (2011/2012)
- Using a hand-drawn sketch to control a team of robots (2011/2012)
- Vision-based Road Traffic Monitoring System (2012/2013)
- Trash Collection using a Team of Mobile Robots (2012/2013)
- Deactivating bombs remotely using mobile robot (2014/2015)
- Driver Assistance and Monitoring System (2014/2015)

Thesis supervision (2010-current)

- Robust technique for dynamic routing in wireless sensor network based on genetic algorithm, Ali Hussien bekhit, faculty of Computers and Information, 2012
- Enhanced Security Technique for Reactive Routing in Mobile Ad Hoc Networks (MANET's), Ebram Kamal ,2015
- A low- Cost Virtual realistic Actor System, Mohamed Naser Afifi, 2015

PROJECTS MEMBERSHIPS

2009-Current

Member in the implementation team of the project entitled " Continuous Improvement and Qualification for Accreditation Project at faculty of Computers and Information Assiut University" Funded by HEEP, Ministry of Higher Education

2009-Current

Lead administrator of the project entitled "Online Learning Utilizing Video Conferencing and HP mobile technology at the Faculty of Computers and Information-Assiut University (OLVCHP, FCI-AU) " Funded by HP.

2004- 2006

Member in the implementation team of the project entitled "Developing and Restructuring the Curricula and the Study Plans of the Graduate Studies at the Sugar Technology Research Institute" Funded by Higher Education Enhancement Project Fund (HEEPF), Ministry of Higher Education.

SPECIAL UNITS MEMBERSHIPS

2009-current

Member in the quality assurance and accreditation unit at the faculty of Computers and Information

PARTICIPATION IN DEVELOPING COURSES/PROGRAMS/CURRICULUM/PLANS

2010-current

Member in the team that prepares and outlines the faculty of Computers and Information curriculum in credit hour

2010-current

Member in the team that modify the program and courses contents for the faculty of Computers and Information 2004 curriculum

2010-current

Member in the team that prepares and outlines the strategic plan 2010-2015 for the faculty of Computers and Information

2004- 2006

Member in the implementation team of the project entitled "Developing and Restructuring the Curricula and the Study Plans of the Graduate Studies at the Sugar Technology Research Institute" Funded by Higher Education Enhancement Project Fund (HEEPF), Ministry of Higher Education.

CONFERENCES

- Member in the organizing Committee of 7 international conferences that was held by ISO and Assiut University (2000-2011).
- Participation in AEAS 37th annual conference, December, 2010
- Participation in IEEE International Joint Conference on Neural Networks (IJCNN'02), Honolulu, Hawaii, USA, May 2002.

WORKSHOPS AND TRAINING PROGRAMS

- Training program entitled "Institutional self assessments for higher education institutions", National Authority for Quality Assurance and Accreditation of Education (NAQAAE), November 2009.
- Training program entitled "External reviewers for higher education institutions", National Authority for

Quality Assurance and Accreditation of Education (NAQAAE), November 2009.

- Workshop on Academic standards, faculty of Computers and Information, Assiut University, 2010
 - Workshop on Multimedia, faculty of Computers and Information, Assiut University, 2010
 - Workshop on curriculums development, faculty of Computers and Information, Assiut University, 2010
 - Workshop on research plans development, faculty of Computers and Information, Assiut University, 2010
 - Workshops on awareness of the importance of intellectual property rights and ethics, faculty of Computers and Information, Assiut University, 2010
 - Workshop on community needs in the areas of the faculty of Computing and Information, faculty of Computers and Information, Assiut University, 2010
 - Workshop on identifying national trends in various areas of Computing and Information Technology, faculty of Computers and Information, Assiut University, 2010
 - Workshop on analyzing and evaluating the administration support system, faculty of Computers and Information, Assiut University, 2010
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