C. V

Name: Medhat Hussein Ahmed Awadalla
Email: awadalla_medhat@yahoo.co.uk
Address: 30 Ali Elgendi st, Naser city, close to Ahly club, Flat 13.
PhD : 2005, Cardiff University, UK in the field of co- operative mobile robots.
MSc: 1996, Helwan University in the field of parallel processing; Reconfigurable computer architecture
BSc: 1991, Helwan University, Electronics, Computers and communication department
Post Doc.: Cardiff University from 2005-2006.
A reviewer for I*PROM 2006, 2007 and 2008 Virtual conference held at Cardiff university.

Courses have been taught from 1993-2006 at Helwan and Cardiff universities, Wales, UK.

Microelectronics
Microprocessors
Computer organisation and architecture
Digital Electronics
Electronics applications
Artificial Neural Networks
C\C++ Language
Real Time systems

Courses have been taught from 2006 so far at Misr International University (MIU) and Misr for Science and Technology (MUST)

Real time systems
Data structure
Neural Network
Logical design
Operating system1
Computer organisation1
Computer organisation2
Computer Interfacing
Assembly Language
Final year projects (IRIS, Voice, and Auto plate Car Recognition, digital water marker, computer grid)

Interested Area of Research

I supervise (co-supervisor) Master and PhD students at Helwan university in the following topics:

Mobile robots

Multi-core processor

Scheduling in Real time systems

Sensor networks

Spiking neural networks

Computing grid

Blind source separation

Publications

1. M K Ahmed and M H Ahmed, "Performance improvement of reconfigurable binary trees". Proc. of AEIC'S, Vol.1 1 pp. 220-230, **Egypt,** 1995.

2. M K Ahmed and M H Ahmed, "A new methods of data exchange optimisation in a reconfigurable computer system". Proc. of AEIC'S, **Egypt**, 1996.

3. Pham, D. T. and Awadalla, M. H., (2002). Fuzzy logic based behaviour coordination in multi-robot system for dynamic target tracking. The Third CIRP Int. Seminar on Intelligent Computation in Manufacturing Engineering (ICME 2002), Ischia (Naples), **Italy**, pp. 551-556.

4. Pham, D. T. and Awadalla, M. H., (2002). Neuro-Fuzzy Based Adaptive Cooperative Mobile Robots. In the Proc. of IECON'02. Sevilla, **Spain**, pp. 2962-2967

5. Pham, D. T. and Awadalla, M. H., (2004). Fuzzy logic based behaviour coordination in multi-robot system. Proceedings of the I MECH E Part B **Journal of Engineering Manufacture**, Volume 218, Number 6, 1 June 2004, pp. 583-598(16)

6. Pham, D. T. and Awadalla, M. H., Eldukhri, E E., (2006). Adaptive knowledge-based action selection architecture for multiple mobile robots. 12th IFAC/IFIP/IFORS/IEEE/IMS Triennial Symposium on Information Control Problems in Manufacturing (INCOM06). 17-19 May, **France**.

7. Pham D T, Awadalla M H and Eldukhri E E, (2006), "Fuzzy and neuro-fuzzy based action selection architecture for multiple mobile robots", Proceedings of the Second Virtual International Conference on Intelligent Production Machines and Systems, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford), pages 578-583, ISBN 0-08-045157-8, **Cardiff, UK**

8. Pham, D. T. and Awadalla, M. H., (2007). Adaptive and Co-operative Mobile Robots. Proceedings of the Institution of Mechanical Engineers, Part I: **Journal of Systems and Control Engineering** Publisher Professional Engineering Publishing ISSN 0959-6518 Issue Volume 221, Number 3 / 2007 Pages 279-293

9. Saad, E.M., Awadalla, M.H, Saleh, M.A. Keshk, H. Darwish, R.R. (2007). **Adaptive and Energy Efficient Clustering Architecture for Dynamic Sensor Networks**. Soft Computing Applications, 2007. SOFA 2007. 2nd International Workshop on Volume, Issue, 21-23 Aug. 2007 Page(s):221 – 225.

10. Saad, E.M., Awadalla, M.H., Darwish, R.R. (2007). Adaptive and Energy Efficient Clustering Architecture for Dynamic Sensor Networks. Proceedings of the third Virtual International Conference on Intelligent Production Machines and Systems, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford), **Cardiff, UK**.

11. Awadalla, M.H. (2007). Hierarchical and Modular Fuzzy Architecture for Multiple Mobile Robots. Proceedings of the third Virtual International Conference on Intelligent Production Machines and Systems, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford), **Cardiff, UK**.

12. Saad, E.M., Awadalla, M.H., Hamdy, A. and Ali., H. (2007). A distributed algorithm for robot formation using local sensing and limited range of communications. Proceedings of the third Virtual International Conference on Intelligent Production Machines and Systems, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford), **Cardiff, UK.**

13. Awadalla, M.H. (2008). Hierarchical and Modular Fuzzy Architecture for Multiple Mobile Robots. **Jouranl of Sci. Bull. Fac. Eng. Ain Shams Univ**.Vol. 42, No. 3, Part 2, 2007, pp. 1033-1051, **Egypt.**

14. Saad, E.M., Awadalla, M.H., Hamdy, A. and Ali., H. (2008). Robot formations using local and limited sensing vision. 25th National Radio conference, NRSC 2008., **Egypt.**

15. Saad, E.M., Awadalla, M.H., Darwish, R.R. (2008). A data gathering algorithm for a mobile sink in large-scale sensor networks. T**he 10th international proc. of WSEAS, Sofia.**

16. Saad, E.M., Awadalla, M.H., Darwish, R.R. (2008). A data gathering algorithm for a mobile sink in large-scale sensor networks. Accepted for SENSORCOMM 2008, **France.**

17. Abdullah elewi, M.H. A. Awadalla, M. I. Eladawey (2008). Energy Efficient Real Time Scheduling of Dependent Tasks Sharing Resources. In the proc. of 22nd international conference of HPCS'08 conference, **CYPRUS.**

18. Abdullah elewi, M.H. A. Awadalla, M. I. Eladawey (2008). 'Energy Aware Scheduling of Dependent Real-Time Tasks'. International Conference on Contemporary Computing IC 2008, **India.**

19. Saad, E.M., Awadalla, M.H., Darwish, R.R. (2008). Adaptive and Energy Efficient Clustering Architecture for Dynamic Sensor Networks. T**he 11th international proc. of WSEAS, Greece.**

20. Awadalla, M.H. (2008). Energy Efficient real time scheduling of dependent tasks. Proceedings of the fourth Virtual International Conference on Intelligent Production Machines and Systems, D T Pham, E E Eldukhri and A J Soroka (eds), Elsevier (Oxford), **Cardiff, UK**.

21. Saad, E.M., Awadalla, M.H., Hamdy, A. and Ali. H. (2008). Modified multi target tracking using Compact Q learning with a teacher. Accepted in IEEE conference,[ICCES08], Ain shams University, **Egypt**.

22. Abdullah elewi, M.H. A. Awadalla, M. I. Eladawey (2008). Energy-Efficient Multi-Speed Algorithm for Scheduling Dependent Real-Time Tasks. Accepted in IEEE conference [ICCES08], Ain shams University, **Egypt**.