

Hussam Eldin Widatalla Abdalla Hamrawi

POBox 07418, Alsiteen Street, 11123, Khartoum, Sudan
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Current Appointment: *Assistant Professor, Computer and Information Engineering,
Academic Affairs Secretary,
Acting Dean, College of Engineering
Merowe University of Technology - Abdulatif Alhamad,
Merowe, Sudan.*

EDUCATION

- **PhD in Computer Science** (May 2011),
Centre for Computational Intelligence, De Montfort University, Leicester, UK.
Thesis title: **Type-2 Fuzzy Alpha-cuts**.
Supervisor: Dr Simon Coupland and Prof Robert John.
Examiner: Prof Honghai Liu, University of Portsmouth, UK.
- **MSc in Computer Engineering** (Feb 2003),
Near East University, Nicosia, Cyprus.
Thesis title: **Identification of Fuzzy Systems**,
Supervisor by Prof Rahib Abiyev.
- **BSc in Computer Engineering** (May 2000),
Girne American University, Kyrenia, Cyprus.
Graduation project: **Vehicle Tracking System Using GPS**,
Supervisor: Prof Azhar Iqbal

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PROFESSIONAL APPOINTMENTS

- **Dean, College of Engineering** (Dec 2017 - Present)
Merowe University of Technology - Abdulatif Alhamad, Merowe, Sudan
- **Secretary, Academic Affairs** (Jun 2015 - present),
Merowe University of Technology - Abdulatif Alhamad, Merowe, Sudan.
- **Assistant Professor of Computer Engineering** (Jun 2015 – present),
College of Engineering,
Merowe University of Technology - Abdulatif Alhamad, Merowe, Sudan.
- **Visiting Researcher** (Sep 2013- present),
University of Nottingham, Nottingham, UK.
- **Visiting Researcher** (Nov 2012 – Jan 2013),
De Montfort University, Leicester, UK.
- **Dean** (Sep 2011 – May 2015), College of Computer Sciences,
University of Bahri, Khartoum, Sudan.
- **Assistant Professor of Computer Engineering** (Aug 2011 – May 2015),
College of Computer Sciences, University of Bahri, Khartoum, Sudan
- **Deputy Director**, Computer Studies Centre (Oct 2006 – Jun 2007),
University of Juba, Khartoum, Sudan
- **Head of Department**, Computer Systems and Networks
(Nov 2004 – Sep 2006),
Computer Studies Centre, University of Juba, Khartoum, Sudan
- **Lecturer** (Oct 2004 - Jun 2007),
Computer Studies Centre, University of Juba, Khartoum, Sudan
- **Network and Systems Engineer** (Sep 2003 - Sep 2004),
National Service Administration, Khartoum, Sudan
- **Web Developer and Network Administrator** (Aug 2000 - Aug 2003),
Hasel Ltd, Nicosia, Cyprus

TEACHING EXPERIENCE

Undergraduate Teaching:

- Engineering Principles
- Engineering Innovation
- Microprocessors and Micro-controllers
- Artificial Intelligence
- New Trends in Computer Science
- New Trends in Information Technology
- Probability and Statistics
- Intelligent Systems
- Professional Development
- Simulation and Modelling
- Programming Fundamentals

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Graduate Teaching:

- Fuzzy Logic Control
- Artificial Intelligence.
- Machine Learning
- Probability and Statistics

Supervision:

- Co-Supervisor of Three PhD students 2014 - present
- Co-Supervised one PhD dissertations 2012 - 2015.
- Supervised two MSc dissertations 2012.
- Supervised five BSc final year projects 2011 - 2013
- Supervised ten Technical Diploma projects 2005 - 2007

External Examiner:

- 2 MSc students University of Science and Technology, Sudan
- 2 MSc students 2015, University of Bahri, Sudan
- 2 MSc students 2014, University of Bahri, Sudan
- 1 MSc Student 2013, University of Khartoum, Khartoum, Sudan.
- 5 BSc projects 2012 – 2013, University of Khartoum, Khartoum, Sudan.

RESEARCH INTERESTS

In general, I am interested in solving scientific and engineering problems using computational intelligence techniques. In particular, I investigate type-2 fuzzy logic theory and applications, and the use of parallel computing for fast processing.

PUBLICATIONS

Elizondo, D. A. & **Hamrawi, H.** (2008), **A convergence upper bound for the Perceptron algorithm**, in 'UKCI-2008'.

Hamrawi, H. & Coupland, S. (2009), **'Type-2 Fuzzy Arithmetic using Alpha-planes'** Proc. IFSA/EUSFLAT', Portugal, 606-611.

Hamrawi, H. & Coupland, S. (2009), **'Non-specificity Measures for Type-2 Fuzzy Sets'** Proc. FUZZ-IEEE', South Korea, 732-737.

Hamrawi, H.; Coupland, S. & John, R. (2009), **'Extending operations on type-2 fuzzy sets'** Proc. UKCI', Nottingham, UK.

Hamrawi, H.; Coupland, S. & John, R. (2010) **'A novel alpha-cut representation for type-2 fuzzy sets'** Proc. IEEE WCCI 2010, Spain

Hamrawi, H. & Coupland, S. (2010), **'Uncertainty measures for type-2 fuzzy sets'** Proc. UKCI', Essex, UK.

Coupland, S.; John, R. & **Hamrawi, H.** (2010), **'Type-2 Fuzzy Logic: state of the art and future directions'**, Editor, London, UK.

Hamrawi, H., Coupland, S., & John, R. (2012, June). **Parallel computation of type-2 fuzzy sets using alpha-cuts**. Proc. (FUZZ-IEEE), 2012 IEEE International Conference on Fuzzy Systems (pp. 1-7).

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Elhaj, M. M., **Hamrawi, H.**, & Suliman, M. (2013, August). **A multi-layer network defense system using artificial immune system**. Proc. (ICCEEE), 2013 IEEE International Conference In Computing, Electrical and Electronics Engineering (pp. 232-236).

Hamrawi, H. (2014) '**Design and implementation of computer science curriculum in extreme conditions: first results**' In Proc. International Conference World Association for Sustainable Development, (WASD) Canada

Coupland, S. John, R. **Hamrawi, H.** (2014) '**A new monotonic type-reducer for interval type-2 fuzzy sets**' (FUZZ-IEEE), IEEE International Conference on Fuzzy Systems, 2391-2395, Beijing, China

Hamrawi, H. Coupland, S. John, R. (2017) '**Type-2 Fuzzy Alpha Cuts**', IEEE Transactions on Fuzzy Systems, Volume: 25, Issue: 3, Pages: 682-692

COMMUNITY SERVICES

- Member of the IEEE and the IEEE computational intelligence society since 2007
- Member of the European society for fuzzy logic and technology EUSFLAT since 2008
- Reviewer for several conferences and journals including: FUZZ-IEEE 2008, 2009, 2010, 2011, IEEE SSCI 2011, IEEE Transactions on Fuzzy Systems, J. Approximate Reasoning and J. Information Sciences.
- Member of the organisation for development of technology ODT, Khartoum, Sudan since 2011.
- Was member of several curricula development committees in both BSc and MSc levels
- Member of the National Council for Higher Education and Scientific Research Computer Curricula Committee
- Member of the National Computing Council
- Member of the university Dean's Board and Senate Board.
- Member of several university-wide Standing Committees including the Central Examinations Committee, the University Master Timetable Management Committee and the Documentation and Archives Committee.
- Member of several important boards such as the Quality and Development Administration Board and the University of Bahri Publication Board.
- Member of several important university academic and management committees such as the Committee for Academic Regulations for the Award of Bachelor Degrees and Technical Diploma, the Higher Committee for the University Council Meeting, the Media Handling Subcommittee, and the Community Services Centre Statute Committee.
- Chairman of the Information Centre Board, College of Computer Sciences College Board, Scientific Research Board, and College of Computer Sciences Financial Committee.