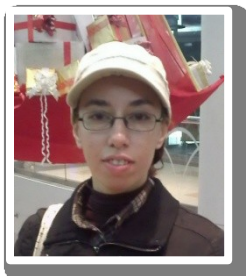


Hend Dawood

9/22/2013

Department of Mathematics, Faculty of Science, Cairo University, Giza, Egypt.



Senior Assistant Lecturer

Department of Mathematics
Faculty of Science
Cairo University
Giza, PO Box: 12613
Egypt.

Phone: 00202-35676537

Fax: 00202-35727556

E-mails: hend.dawood@sci.cu.edu.eg, hend.dawood@gmail.com

BIOGRAPHICAL SKETCH

Hend Dawood is a Senior Assistant Lecturer of Computational Mathematics in the Department of Mathematics at Cairo University. She has more than eight years of research experience in the field of computational mathematics. Her current research interests include algebraic systems of interval mathematics, logical foundations of computation, proof theory and axiomatics, ordered algebraic structures and algebraic logic, mathematical cryptography, uncertainty quantification, and uncertain computing. She authored a monograph on the foundations of interval mathematics and a number of related publications.

Hend Dawood is an Associate Editor for the International Journal of Fuzzy Computation and Modeling (IJFCM – Inderscience); and serves as a Reviewer for a number of international journals of repute in the field of computational mathematics including Neural Computing and Applications (NCA – Springer Verlag), the Journal of the Egyptian Mathematical Society (JOEMS – Elsevier), Alexandria Engineering Journal (AEJ – Elsevier), and Coupled Systems Mechanics (CSM – Techno-Press). She is a member of the Egyptian Mathematical Society (EMS), a member of the Cairo University Interval Arithmetic Research Group (CUIA), and a voting member of the IEEE Interval Standard Working Group (IEEE P1788).

As recognition of her professional contribution and activities, Hend Dawood is recipient of many research and academic awards including Schlumberger Award and Certificate of Merit (2003), ESSP Shield of Excellence and Certificate of Merit (2006), CUSC Medal and Certificate of Merit (2008), and CU International Publication Excellence Award (2012).

EDUCATION AND ACADEMIC RECORDS

MSc: Faculty of Science, Cairo University, Cairo, Egypt.
2010 - 2012

Department of Mathematics, Computer Science Division.

Thesis. *Interval Mathematics: Foundations, Algebraic Structures, and Applications.*

Pre-MSc: Faculty of Science, Cairo University, Cairo, Egypt.
2006 - 2007

Department of Mathematics, Computer Science Division.

Post-Graduate Report. *Interval Arithmetic: Accurate Self-validating Arithmetic for Digital Computing.*

BSc: Faculty of Science, Cairo University, Cairo, Egypt.
2002 - 2006

Department of Mathematics, Computer Science Division, **Rank 1st.**

Graduation Project. *My Thesis: A Thesis Management System and Search Engine Coded in C# and SQL.*

TEACHING EXPERIENCE

Senior Assistant Lecturer | Cairo University, Faculty of Science,
Department of Mathematics, Computer Science Division.
2012 – Now

Assistant Lecturer | Cairo University, Faculty of Science, Department
of Mathematics, Computer Science Division.
2007 – 2012

Coursework:

- Differential and Integral Calculus.
- Probability Theory and Statistics.
- Compiler Design.
- Logic Programming with Prolog.
- Logic Programming with Lisp.

- Formal Languages and Automata Theory.
- C++ Basics.
- Object-Oriented Programming in C++.
- File Structures in C++.
- File Structures in Java.
- Java Basics.
- Object-Oriented Programming in Java.
- Data Structures in Java.
- Cryptography in Java.
- Computer Graphics with Java and JOGL.
- Computer Graphics with C++ and OpenGL.
- Computer Organization.

LANGUAGE SKILLS

- Arabic (Native Speaker).
- English (Very Good - TOEFL Localized Version).
- French (Good).
- German (Fair).
- Russian (Fair).

COMPUTER SKILLS

Operating Systems

- DOS.
- MS Windows (9x, 2000, XP, 7) [*Admin*].
- Linux [*User*].

Programming Languages

- Structured Programming with C [*Senior Developer*].

- Object-Oriented Programming with C++ [*Senior Developer*].
- Object-Oriented Programming with Java [*Senior Developer*].
- Compiler Design with ANTLR [*Very Good*].
- Logic Programming with Prolog [*Very Good*].
- Logic Programming with Lisp [*Very Good*].
- Typesetting Languages (LateX/TeX) [*Very Good*].

Applications

- MS Office (XP, 2007, 2010).
- Mathematics Software and Computer Algebra Systems (Maple, Matlab, Magma, SAGE, Symbolic C++).

RESEARCH INTERESTS

- Mathematical Logic and Foundations of Computational Mathematics.
- Interval Mathematics and Uncertain Computing.
- Ordered Algebraic Structures and Algebraic Logic
- Cryptographic Primitives.
- Human and Human-Machine Reasoning.
- Experimental Mathematics and Automated Theorem Proving.
- Mathematical Education.

AWARDS AND HONOURS

2012 | **International Publication Award (CUIPA).**

Faculty of Science, Cairo University.

2008 | **CUSC Medal and Certificate of Merit.**

Cairo University Staff Club (CUSC).

2007 | **Mohamed El Qassas Medal for the 1st Rank Student in Computer Science.**

Faculty of Science, Cairo University.

2007 | [Ateya A. Ashour Award for the 1st Rank Student in Computer Science.](#)

Faculty of Science, Cairo University.

2006 | [ESSP Shield of Excellence and Certificate of Merit.](#)

Egyptian Syndicate of Scientific Professions (ESSP).

2003 | [Schlumberger Award and Certificate of Merit for the Distinguished Student.](#)

Schlumberger Logelco Inc.

SELECTED PUBLICATIONS

- Hend Dawood; *Theories of Interval Arithmetic: Mathematical Foundations and Applications*; LAP Lambert Academic Publishing; Saarbrücken, Germany; 2011; ISBN 978-3-8465-0154-2. | [\(Authored Book\)](#).
- Hend Dawood. *Interval Mathematics as a Potential Weapon against Uncertainty*. In S. Chakraverty, editor, *Mathematics of Uncertainty Modeling in the Analysis of Engineering and Science Problems*. IGI Global, January 2014. doi:10.4018/978-1-4666-4991-0. | [\(Book Chapter\)](#).
- Hend Dawood. *Interval Mathematics: Foundations, Algebraic Structures, and Applications*. M.Sc. Thesis. Department of Mathematics, Faculty of Science, Cairo University, 2012. | [\(Master Thesis\)](#).
- Hend Dawood. *Interval Arithmetic: Accurate Self-validating Arithmetic for Digital Computing*. Technical Report. Department of Mathematics, Faculty of Science, Cairo University, 2007. | [\(Technical Report\)](#).
- Hend Dawood. *Interval Arithmetic: A History against Uncertainty*. Technical Report. Cairo University Interval Arithmetic Research Group (CUIA), Cairo University, 2009. | [\(Technical Report\)](#).
- Hend Dawood. *An Interval n-Time Pad*. Technical Report. Department of Mathematics, Faculty of Science, Cairo University, 2009. | [\(Technical Report\)](#).
- Hend Dawood and Yasser Dawood. *On the Metamathematics of the Theory of Interval Numbers*. Technical Report. Department of Mathematics, Faculty of Science, Cairo University, 2010. | [\(Technical Report\)](#).

EDITORIAL AND PEER-REVIEW ACTIVITIES

- **Associate Editor** for the *International Journal of Fuzzy Computation and Modeling* (IJFCM) – Inderscience Publishers.
- **Peer-Reviewer** for *Neural Computing and Applications* (NCA) – Springer Verlag.
- **Peer-Reviewer** for the *Journal of the Egyptian Mathematical Society* (JOEMS) – Elsevier.
- **Peer-Reviewer** for *Alexandria Engineering Journal* (AEJ) – Elsevier.
- **Peer-Reviewer** for *Coupled Systems Mechanics* (CSM) – Techno-Press.

PROFESSIONAL MEMBERSHIPS

- **Member** of the *Egyptian Mathematical Society* (EMS).
- **Voting Member** of the *IEEE Interval Standard Working Group* (IEEE P1788).
- **Member** of the *Cairo University Interval Arithmetic Research Group* (CUA).

REFERENCES

- *Prof. Nasser Hassan Sweilam*, Chairman of Mathematics Department, Faculty of Science, Cairo University, Giza, Egypt.
- *Prof. Mohamed A. Amer*, Department of Mathematics, Faculty of Science, Cairo University, Giza, Egypt.
- *Prof. Hassan A. M Aly*, Department of Mathematics, Faculty of Science, Cairo University, Giza, Egypt.
- *Prof. Hossam A. H. Fahmy*, Department of Electronics and Communication Engineering, Faculty of Engineering, Cairo University, Giza, Egypt.
- *Prof. Assem S. Deif*, Professor Emeritus of Engineering Mathematics and Former Chairman of Engineering Mathematics and Physics Department, Faculty of Engineering, Cairo University.
- *Prof. Ramon E. Moore*, Professor Emeritus of Computer and Information Science, Department of Mathematics, The Ohio State University, Columbus, U.S.A.

- *Prof. Snehashish Chakraverty*, Department of Mathematics, National Institute of Technology, Rourkela, India.
- *Personnel Department*, Faculty of Science, Cairo University, Giza, Egypt.