

Charles Mutigwe

Isenberg School of Management
University of Massachusetts Amherst
121 Presidents Drive
Amherst, MA 01003

☎ 413-545-5617

✉ cmutigwe@isenberg.umass.edu

Education

- 2013 **D.Tech in Electrical Engineering**
Central University of Technology, Bloemfontein, South Africa
ADVISORS: Farhad Aghdasi, Ph.D. and Johnson Kinyua, Ph.D.
- 2005 **MBA**
Norwich University, Northfield, VT
- 2003 **MSc in Electrical Engineering**
Western New England University, Springfield, MA
ADVISOR: James Masi, Ph.D.
- 1993 **BSc (Hons.) in Electrical Engineering**
University of Zimbabwe, Harare, Zimbabwe

Academic Experience

- University of Massachusetts Amherst, Amherst, MA**
- 2014-present Lecturer
- 2011-2013 Adjunct Instructor
- Springfield Technical Community College, Springfield, MA**
- 1999-2002 Instructor - Center for Business and Technology

Professional Experience

- 2015-2016 **Mount Holyoke College, South Hadley, MA**
Business Intelligence Consultant
(Sept. 2015 - Feb. 2016)
- 2010-2014 **University of Massachusetts Amherst, Amherst, MA**
Isenberg School of Management
Data Analyst

- 2007-2010 **Berkshire Bank**, Pittsfield, MA
Systems Developer
- 2004-2007 **University of Massachusetts Amherst**, Amherst, MA
Isenberg School of Management
Director of IT & Data Analysis
- 2001-2004 **Pitney Bowes**, Holyoke, MA/Danbury, CT
Systems Engineer
- 2000-2001 **LeadingSide/Dataware Technologies**, Hadley, MA
Systems Administrator
- 1999 **Applied Computing Systems of Massachusetts**, Hadley, MA
UMass Center for Intelligent Information Retrieval
Lab Manager
- 1996-1998 **Globix Zim**, Harare, Zimbabwe
Founder and IT Manager
- 1995-1996 **DHL International**, Guayaquil, Ecuador
Network Engineer
- 1994 **Strømmestiftelsen**, Kristiansand, Norway
Project Management Internship

Awards & Honors

- 2015 **Nominee for the Distinguished Teaching Award** at the University of Massachusetts Amherst, October 2015.
- 2015 **Keynote Address.** International Association of Computer Science & Information Technology Conferences (*ICCMS 2015, ICICA 2015, ICSMO 2015*), Amsterdam, Netherlands, February 2015.
- 2014 **Keynote Address.** International Association of Computer Science & Information Technology Conferences (*ICCMS 2014, ICICA 2014, ICSMO 2014*), Barcelona, Spain, February 2014.
- 2013 **Best Paper Award** for the paper, “A Model of Computer Architecture with Applications,” with J. Kinyua and F. Aghdasi, at the *4th International Conference on Computer Modeling and Simulation (ICCMS 2013)*, Rome, Italy, February 2013.
- 1989 **1st International Olympiad in Informatics** Contestant, Pravetz, Bulgaria, May 16 - 20, 1989.

Publications

1. Journal Articles (Refereed)

C. Mutigwe, “Strategic Use of Data for Student Enrollment Management: A Case Study,” *Journal of Innovative Education Strategies*, vol. 2, no. 1, pp. 64–84, 2013. [\[HTML\]](#)

C. Mutigwe, F. Aghdasi, and J. Kinyua, “A Scalable, Privacy-preserving and Secure RFID Protocol,” *International Journal of Engineering and Technology*, vol. 5, no. 2, pp. 237–244, 2013. [\[DOI\]](#)

C. Mutigwe, J. Kinyua, and F. Aghdasi, “A Model of Computer Architecture with Applications,” *International Journal of Computer Theory and Engineering*, vol. 5, no. 4, pp. 683–689, 2013. [\[DOI\]](#)

C. Mutigwe, J. Kinyua, and F. Aghdasi, “Instruction Set Usage Analysis for Application-Specific Systems Design,” *International Journal of Information Technology and Computer Science*, vol. 7, no. 2, pp. 99–103, 2013. [\[PDF\]](#)

2. Journal Articles (Non-Refereed)

C. Mutigwe, and F. Aghdasi, “Research Trends in RFID Technology,” *Interim: Interdisciplinary Journal*, vol. 6, no. 1, pp. 68–82, 2007. [\[HTML\]](#)

3. Unpublished Works

C. Mutigwe, *An Information System for Data-Driven Student Enrollment Management*, Isenberg School of Management, University of Massachusetts Amherst, Technical Report, July 2013.

C. Mutigwe, *Automatic Synthesis of Application-Specific Processors*, PhD Dissertation in Electrical Engineering, Central University of Technology, Bloemfontein, South Africa, October 2012. [\[HTML\]](#)

C. Mutigwe, *A Quantum Computer Simulator Implemented in a Virtual State Space*, MSc Thesis in Electrical Engineering, Western New England University, Springfield, MA, June 2003.

Conference Presentations

2015 Using Virtual Computer Labs in Higher Education, *UBTech Conference*, Orlando, FL, 15 June 2015.

2014 Data Analysis with R for IT Professionals, *9th IEEE/ACM Information Technology Professional Conference at TCF*, Trenton, NJ, 14 March 2014.

- 2013 Strategic Use of Data for Student Enrollment Management, *Joint Annual Conference of the International Academy of Business and the International Educators Group*, Washington D.C., 25-26 October 2013.
- 2013 A Scalable, Privacy-preserving and Secure RFID Protocol, *2nd International Conference on Security Science and Technology (ICSST 2013)*, Singapore, 1-2 April 2013.
- 2013 A Model of Computer Architecture with Applications, *4th International Conference on Computer Modeling and Simulation (ICCMS 2013)*, Rome, Italy, 24-25 February 2013.
- 2013 Instruction Set Usage Analysis for Application-Specific Systems Design, *2nd International Conference on Emerging Trends in Computer & Information Technology (ICETCIT 2013)*, Kuala Lumpur, Malaysia, 14-15 January 2013.
- 2012 Toward a Theory of Computer Architecture with Applications to Microprogramming and Virtualization, in *Proceedings of the 10th Michael L. Gargano Annual Research Day*, pp. A2.1–A2.7, Pace University, White Plains, NY, May 2012. [\[PDF\]](#)
- 2007 Deterministic Read Rates for RFID Tagged Items in a Production Line, *10th Annual CUT/SA Institute of Electrical Engineers Research Seminar*, Bloemfontein, South Africa, 19 October 2007.

Other Presentations and Workshops

- 2015 FiT: An Automated Toolkit for Matching Processor Architecture to Applications (Poster), in *Proceedings of the 2015 ACM/SIGDA International Symposium on Field-Programmable Gate Arrays (FPGA '15)*, pp. 267–267, Monterey, CA. [\[doi\]](#).

Invited Presentations

- 2016 Experiential Learning in Online Courses: The Case for Virtual Computer Labs, *International Conference on Information & Education Technology (ICIET 2016) Plenary Speech*, Los Angeles, CA, 5 January 2016.
- 2015 Mobile Computing in Africa *1st Annual Seminar of the African Graduate Students & Scholars Association (AGASA)*, University of Massachusetts Amherst, MA, 3 April 2015.
- 2015 An Automated Design Framework for Matching Processor Architecture to Applications, *International Association of Computer Science & Information Technology Conferences (ICCMS 2015, ICICA 2015, ICSMO 2015) Keynote Address*, Amsterdam, Netherlands, 13 February 2015.

- 2014 A Perspective on Computational Models and Simulations in Research, *International Association of Computer Science & Information Technology Conferences (ICCMS 2014, ICICA 2014, ICSMO 2014)* Keynote Address, Barcelona, Spain, 21 February 2014.
- 2007-2008 Applications of RFID Systems. SCH-MGMT 210 Guest Lecture. *Isenberg School of Management, University of Massachusetts Amherst*, Spring 2008, Fall 2007 and Spring 2007.

Teaching

- 2011-present **University of Massachusetts Amherst**, Amherst, MA
 Isenberg School of Management
OIM 451 - Information & Project Management (2014 - 2016)
OIM 452 - Business Processes & Enterprise Systems (2016)
OIM 453 - Business Intelligence & Analytics (Fall 2014 - 2015)
SCH-MGMT 797Q - Project Management (Spring 2014 - 2016)
SCH-MGMT 632 - Strategic Information Management (Summer 2011 - 2016)
SCH-MGMT 697BA - Business Intelligence & Analytics (2014 - 2016)
- 1999-2002 **Springfield Technical Community College**, Springfield, MA
 Instructor
 Center for Business and Technology
Fundamentals of C++ Programming (Spring 2002, Fall 2001, Fall 1999)
Writing C++ Applications (Fall 2000)

Academic and Professional Memberships

Member, IEEE
 Member, IEEE Computer Society
 Member, IACSIT

Faculty Development & Training

SAP Mobile Development Workshop, 4 days, Milwaukee, WI, July 2014.
SAP Analytics Workshop, 4 days, Chico, CA, June 2014.
Introduction to SAP ERP using Global Bike Inc. Workshop, 2 days, Atlanta, GA, March 2014.
Agile Software Design & Implementation (DCS 801), Pace University, White Plains, NY, Fall 2011.

Agile Software Development & Engineering (DCS 821), Pace University, White Plains, NY, Fall 2011.

Research Seminar (DCS 891A), Pace University, White Plains, NY, Fall 2011.

Reconfigurable Computing (E&C ENG 697FF), University Massachusetts Amherst, Fall 2006.

Mastering Internet & LAN Security, CompuMaster, Springfield, MA, December 2001.

Administering WebLogic Server 6.1, BEA Systems/Oracle, Burlington, MA, July 2001.

Service to University

Member, *Information & Communication Technology Council of the University of Massachusetts Amherst Faculty Senate*, Term: Fall 2014 - Spring 2016.

Service to Profession

- 2014 – Associate Editor, *African Journal of Management Studies*.
- 2016 Program Chair, *IACT International Conferences (ICIET 2016, ICII 2016, ICKE 2016)*, Los Angeles, CA, 4-6 January 2016.
- 2015 SIG Leader, *Cloud Infrastructure for Education*, Special Interest Group, UBTech Conference, Orlando, FL, 15 June 2015.
- 2015 Reviewer, *9th IEEE International Conference on Open Source Systems and Technologies (ICOSST 2015)*.
- 2015 Conference Chair, *4th International Conference on Information and Computer Applications (ICACA 2015)*, Amsterdam, Netherlands, 13 February 2015.
- 2014 Reviewer, *8th IEEE International Conference on Open Source Systems and Technologies (ICOSST 2014)*.
- 2014 Reviewer, *6th IEEE International Conference on Computational Intelligence and Communication Networks (CICN 2014)*.
- 2014 Reviewer, *French National Research Agency*, Work Program 2014 Proposals.
- 2013 Reviewer, *5th International Conference on Computer Modeling and Simulation (ICCMS 2014)*.