

Jamiiru Luttamaguzi

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Education:

Ph. D	May 2002	Mathematics	Louisiana State University, Baton Rouge, LA
M. S.	Dec. 2000	System Science	Louisiana State University, Baton Rouge, LA
M. S.	Dec. 1998	Mathematics	Louisiana State University, Baton Rouge, LA
M. S.	Jun. 1995	Mathematics	King Fahd Univ. of Pet. & Min, Dhahran, S. Arabia
B. Sc.	Oct. 1992	Mathematics	Makerere University, Kampala, Uganda

Professional Experience:

- Islamic University in Uganda, Kampala, Uganda, 08/09-05/10.
- Associate Professor, Elizabeth City State University, 08/02 – 05/09.
- Reviewer for AP Computer Science Syllabi to be used in US High Schools offering “AP Computer Science A” course, Summer 2007.
- Reader for AP Computer Science Exam, Summer 2006 and 2007.
- Assistant Professor, Georgia College & State University, 01/02 - 05/02
- Teaching Assistant (with Tuition Award) at LSU. Date: 09/96 - 12/01
- Lecturer, King Fahd University of Petroleum and Minerals (KFPUM) , Dhahran Saudi Arabia: 09/95 - 06/96
- Research assistant, KFUPM, Dhahran Saudi Arabia: 09/93 - 06/95

Certifications and Awards

- Received the Math and Computer Science Teacher of the Year Award, 2005-2006.
- Cisco Certified Network Associate, CCNA, 2008.
- Certification for the "Sun Certified Programmer for the Java 2 Platform 1.4" on 08/01/2006.

Current Professional Societies:

Mathematical Association of America. American Mathematical Society.

Areas of Research:

Stochastic Control Theory, Optimization, Probability Theory.

Math courses taught: Numerical Methods, Ordinary Differential Equations, Probability and Statistics, Applicable Analysis, Number Theory, Multidimensional Calculus, Calculus and Analytic Geometry I, Pre-Calculus, College Algebra, Contemporary Mathematics, Discrete Methods, Applied Partial Differential Equations, Complex Analysis.

Computer science courses taught: Database Management Systems, Modern Programming Applications with Java, Computer Architecture, Object oriented programming with C++, Data Structures and Algorithm Analysis, Comparative Programming Languages, UNIX Administration and Systems Programming.

Computer Packages used: Macromedia tools: Dreamweaver, Flash, Fireworks. MS Office. Mathematica, Matlab, Minitab, AMPL, Lingo, Latex, php, mySQL, JBuilder, C# Studio.

Research Projects with Students

- *Simulating Schedules of Departures and Landings on a Single Airport Runway*. Sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2010. Student: Dante Wilson.
- *Modeling a Flexible Beam using Differential Equations*. Sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2010. Students: Jamila Peele, Kendra Jones.
- *Artificial Intelligence: Navigating Polygonal Obstacles Using Searching Techniques*, sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2009. Students: La'Shanda Dukes and Justin Deloatch.
- *Using Calculus of Variations on Brachistochrone and Geodesics Problems*, sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2009. Student: Ashley Berryman.
- *ECSU Online Student Evaluation System Application: Administration, Evaluation, and Results Generation*, sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2008. Students: Ebony Addison and Marcus Morgan Jr.
- *A Mathematical Representation of the Modeling of Bungee Jumping*, sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2008. Student: Ashley D. Berryman.
- *An Investigation of Possible Effects of Global Warming on Forest Fires in Kentucky from 1945 to 2004*, sponsored by ECSU-NAM 2008 Summer Research Institute in Computational Science-Scientific Visualization. Students: Samuel J. Ivy, Ashley J. Sullivan, Kevin Wingfield, Jamika Baltrop, Amanda Eure.
- *Dynamic Web Design for a Bookstore Application*, sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2007. Student: Ebony Addison.
- *A Study of Current-Voltage Regulation of an Electrical Diode Using Nonlinear Least Squares Model*, sponsored by ECSU-NAM 2007 Summer Research Institute in Computational Science-Scientific Visualization. Students: Brittany Cole, Rasheed Graham, James Howard, Marcia Onyeanus, Ebony Spivey.
- *Mathematics of Cryptology. How Secure are Cryptosystems?* sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2006. Student: Nyoka Green.
- *Biomass: An Alternate Source of Energy*, sponsored by ECSU-NAM 2006 Summer Research Institute in Computational Science-Scientific Visualization. Students: Kaitlyn Caughlin, Delisa Hamilton, Jerome Mitchell, Charles Rogers, and Nakeya Williams.
- *Design and Implementation of a Simple Encryption System for Secure Transmission of Data and Information*, (Thesis Co-advisor) Spring 2006, Student, Shalonda Poole.
- *Queuing Systems and their Simulation at a Car Wash Facility*, sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2004. Student: Portia Z. Parker.
- *Tracking the Yield of an Investment in an Oil Company (Markov Chains)*, sponsored by ECSU-NAM 2004 Summer Research Institute in Computational Science-Scientific Visualization. Students: Eunice Smith, Lyrial Chism, Keilee Bornes, Emmanuel Criner, Christopher Turner.

- *A Study of Electric Power Generation by the Use of Coal*, sponsored by ECSU-NAM 2003 Summer Research Institute in Computational Science-Scientific Visualization. Students: DeAndre Cole, Deidra Coleman, Cecil Flournoy, Jamelle Settles and Simone Uter.
- *Minimizing the Cost of Scheduling Truck Routes Using Network Analysis*, sponsored by Ronald E. McNair Post Baccalaureate Achievement Program, Summer 2003. Student: Shawneque L. Reid.

Research Development/Scholarly Activities:

- Attended a workshop on using the web to teach mathematics: ICTCM Flash Workshop in Westminster, CO in July 2003.
- Attended a workshop on using technology in teaching mathematics: IIDS Training Workshop at Bennett College in Greensboro, NC April 2003.
- Attended a workshop in Grant writing in Virginia Union University in Richmond, VA in October 2002.
- Attended workshops in the use of Stella and AgentSheets software in Mathematical modeling at the CCSV center and ECSU, NC in Fall 2002 and Spring 2003, Spring 2004.

Service to Department, University and Community:

- Wrote Math high school Contest Test in 2003, 2004, 2005.
- Chairing Peer Review Committee in the Math & CS Department, served on search committee.
- Precalculus coordinator for 2003-2004 academic year.
- Gave seminars and supervised/mentored students in the McNair Scholars Program at ECSU, Elizabeth City NC in Summer 2003, 2004 and 2005.
- Served as Faculty Mentor at the ECSU-CSSV-NAM Workshop in Computational Sciences in 2003, 2004, 2005

Publications:

- *3-DOF-PID nonlinear H-Infinity estimators*, M. D. S. Aliyu, J. Luttamaguzi, International Journal of Control, Vol. 83, No. 6, June 2010, Pages 1136–1144.
- *Towards an Example of a Nonconvex Monotone Follower Control Problem*, Journal of Mathematical Sciences, Vol. 161, No. 2, 2009, Pages 235-249.
- *On the Bounded-real and Positive-real Conditions for Affine Nonlinear State-Delayed Systems and Applications to Stability*, M. D. S. Aliyu, J. Luttamaguzi, Automatica, Vol. 42, Iss. 2, Feb. 2006, Pages 357-362.
- *Integer Programming Solutions for Several Optimization Problems in Graph Theory* with Michael Pelsmajer, Zhizhang Shen, Boting Yang: International Journal for Computers and Their Applications, 20th International Conference on Computers and Their Applications 2005.
- *Optimal Boundary Control of One-Dimensional Multi-span Vibrating Systems*, with Sadek I. S. and H. A. Al-Mohamad, J. of Computational and Applied Mathematics, Vol. 94, 1998, 39-54.
- *A solution Method for Boundary Control of One-Dimensional Multi-span Vibrating Systems*, with Sadek I. S. and H. A. Al-Mohamad, J. of Vibr. and Control Vol 5, no. 3, 1999, 373-399.
- *Pseudospectra of Companion Matrices and Their Potential Impact on Polynomial Algorithms using MATLAB*, Proceedings of the First Southern. Symposium on Computing, Hattiesburg, Mississippi, December 4-5, 1998.