

## **EDUCATION**

Ph.D. (Mathematics), The University of Toledo, Toledo, Ohio (UT).

M.A. (Mathematics), The University of Toledo, Toledo, Ohio.

M.Sc. (Mathematics), Andhra University (AU), Waltair, India.

B.Sc. (Major: Mathematics, Minors: Physics & Chemistry), AU.

## **CERTIFICATIONS**

Alabama Class AA Teaching License in Mathematics for grades 6 – 12 (Classified as a highly qualified teacher), Valid until June 30, 2023 (License Number: VLG-0113-0812).

Mississippi Class AAAA Teaching License in Mathematics, Physics, and Chemistry for grades 7 – 12 (Classified as a highly qualified teacher), Valid until June 30, 2022 (License Number: 190766).

Indiana Standard Teaching License in Mathematics (major), Physics and Chemistry (minors) for grades 5 – 12 (Classified as a highly qualified teacher according to NCLB standards), Valid until April 19, 2015 (License Number: 1059243).

Certified as Blackboard Proficient through Blackboard TOP Course at Troy University, 2010.

## **EMPLOYMENT**

Dean and Professor, College of The Science, Technology, Engineering and Mathematics, Johnson C. Smith University, Charlotte, NC, June 2020 – present.

Professor, Department of Mathematical, Computing, and Information Sciences (MCIS), Jacksonville State University, Jacksonville, Alabama (JSU), August 2016 – May 2020.

Department Head and Professor, Department of Mathematical, Computing, and Information Sciences, JSU, August 2016 – December 2019.

? MCIS has two masters' programs, supports one program in secondary education, and four undergraduate programs.

Successfully managed ABET site visit for the Computer Science and Computer Information Systems programs. JSU achieved accreditation till 2023.

MCIS almost doubled the graduate enrollment in MSSD program in 2017.

Improved the graduation rate.

? The MCIS department had great success in enrollment and credit hour production (CHP).

Since 2016, total credit hour production has been increasing.

Average CHP per full time faculty has been increasing.

? Established connections with many industries in the region and organized *Career Bytes* events and *Byte-size career and Internship Fair* every semester.

As a result, MCIS achieved 99% job placement for graduates.

? Established several new computer labs, and renovated several rooms for the department.

? Upgraded computer labs and utilized them to increase the classroom capacity.

? MCIS made many curriculum changes to aid student retention, success, and graduation. All undergraduate programs (MS, CS, and CIS) in MCIS went through major revisions from 128 credit hours required to 120 credit hours to be competitive and to improve retention and graduate rates. Eliminated outdated and nontransferable courses such as MS 108 from catalogue.

? Member representing Jacksonville State University, AGSC/STARS – Mathematics discipline committee, JSU, 2017 – 2018.

? Building Manager, Ayers Hall, JSU, 2016 – 2019.

? Vice Chair, the University Tuition and fees committee, JSU, 2017 – 2020.

The committee consists of diverse administrators, faculty, staff, and students. After a comprehensive evaluation of tuition and fees, made recommendations to the president two consecutive years.

? Member, the University Budget Committee, JSU, 2016 – 2020.

? Member, the Executive Committee for Recreation Center (opened in 2019), JSU, 2016 – 2019.

Director, *Wiregrass Math, Science, and Technology Leadership Academy*, Troy University, Dothan, Alabama, 2011–2017.

? Received six federal grants for implementation of the project titled *Wiregrass Math, Science, and Technology Leadership Academy*, through Alabama Commission on Higher Education (2011 – 2017).

? Was honored by ACHE for the work on this project, June 9, 2017.

Professor, Department of Mathematics, Troy University, Dothan, Alabama, August 2010 to July 2016.

- ? Initiated and successfully completed several outreach programs, such as Girls' camps, workshops for middle and high school teachers, etc.

These projects have attracted a considerable positive attention from the media.

- ? Supervisor, *Wiregrass Math and Science Consortium*, May 2012–2016.
- ? Chair, Department of Mathematics, Troy University Dothan Campus, 2010–2012.
- ? Created a one-page comprehensive document with clear description of placement and prerequisites for all mathematics courses offered in mathematics department, Troy University, December 2010.

Professor, Department of Mathematics, Jackson State University, Jackson, Mississippi (JSUMS), August 2009 to July 2010.

Associate Professor, Department of Mathematics, JSUMS, August 2004 to July 2009.

- ? Developed and served as the Coordinator of Master of Science and Mathematics in Teaching Programs in Mathematics, Biology, Physics, and Chemistry, 2005–2007.
- ? University supervisor for student teachers in mathematics, 2004–2006.

Coordinator, Mathematics Programs, Charles A. Tindley Accelerated School, Indianapolis, Indiana, June 2004 to January 2005.

- ? Designed and implemented accelerated mathematics program.

Mathematics Teacher, Clinton Central Junior-Senior High School, Michigantown, Indiana, September 2000 to June 2004.

- ? Contributed to the measurable success in student achievement in NWEA exams, AP Calculus exams, and Graduation Qualifying Exams.

Assistant Professor, Department of Mathematical Sciences, Ball State University, Muncie, Indiana, August 1990 to June 1994.

- ? Taught a variety of courses including large lecture classes of business calculus.

Visiting Lecturer, Division of Natural Sciences and Mathematics, Indiana University East, Richmond, Indiana, January 1990 to May 1990.

- ? Revised the basic algebra and intermediate algebra curriculum to make a smooth transition. This improved the student performance substantially.

Mathematics Tutor, The University of Toledo Tutorial Services, 1984–1989.

- ? Received the Best Tutor Award, The University of Toledo Tutorial Services, 1989.

Teaching Assistant, Department of Mathematics, UT, September 1986 to August 1989.

? Independently taught a mathematics/statistics course every quarter.

Research Assistant, Department of Mathematics, UT, September 1984 to August 1986.

? Assisted Dr. H. L. Bentley with regard to a book on *pseudo metric spaces*.

### **PROGRAM DEVELOPMENT/ASSESSMENT**

Successfully managed ABET site visit for the Computer Science and Computer Information Systems programs. Jacksonville State University received full accreditation till 2023.

National Council for Accreditation of Teacher Education (NCATE, current Council for the Accreditation of Educator Preparation (CAEP)) Lead reviewer for mathematics programs, Fall 2013, Spring 2013, Spring 2012, Spring 2009, Fall 2008, Spring 2008, and Fall 2007.

Member, Board of Program Reviewers, NCATE (current CAEP), 2011 – 2013.

NCATE (current CAEP) steering committee, JSUMS, 2005–2007.

Compiler and chief writer for NCATE (currently CAEP) Specialized Professional Association Review Report, Jackson State University, 2006.

Expert Evaluator for Mississippi Summer Institute for Teachers, *Improving Math Teacher Quality through The Correlates of Effective Schools*, Summer 2006.

NCATE (currently CAEP) reviewer for mathematics programs, Spring 2006.

Worked with the division of education to embed alternate certification requirements in the Master of Science and Mathematics in Teaching program, JSUMS, 2005.

Designed and implemented accelerated mathematics program at Charles A. Tindley Accelerated School, Indianapolis, Indiana, June 2004 to January 2005.

Revamped the mathematics curriculum, at Clinton Central Junior-Senior High School; Filled the conceptual gaps between mathematics classes; Started a new program consistent with the Indiana state standards; September 2000 to June 2001.

? Success in algebra went up from approximately 38% (prior to 2000) to over 95% (in 2004).

? 95% of general education students and many special education students passed the mathematics portion of the Indiana State Graduation Qualifying Examination in 2004. Local newspapers recognized and published this achievement as number 1 in the Clinton County, Indiana.

? Freshman algebra students scored much higher than the national average in Northwest Evaluation Association (NWEA) test in 2003.

? AP Calculus passing with 3.0 increased from 0% to 25% the first year (2001) and to 40% the second year (2002).

Revised the basic algebra and intermediate algebra curriculum to make a smooth transition, Indiana University East, Richmond, Indiana, January 1990 to May 1990.

### **FUNDED GRANTS (AS PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR)**

Received a NASA Opportunities for Visionary Academics (NASA/NOVA) grant from National Aeronautics and Space Administration (NASA) for improving pre-service teacher education, 2005.

Awarded Research Fellowship, Department of Mathematics, AU, January 1984 to September 1984 (One of the 8 fellows selected by the Council of Scientific and Industrial Research through a national competition in India).

### PEER-REVIEWED PUBLICATIONS

*Local Separation Axioms Between Kolmogorov and Fréchet Spaces* (with Dr. R. Gompa), The Missouri Journal of Mathematical Sciences (MJMS), Volume 29, Issue 1 (2017), 33 – 42.

*On categories of Merotopic, Nearness, and Filter Algebras*, The Journal of Linear and Topological Algebra (JLTA), Volume 05 (2), 2016, 111-118.

*Subcategories of Topological Algebras*, The Journal of Linear and Topological Algebra (JLTA), Volume 05 (1), 2016, 15–28.

*Cartesian closed algebraic categories*, International Journal of Pure and Applied Mathematics Volume 78 (2), 2012, 215–231.

*Effective mathematics teaching methodologies to overcome challenges and increase achievement in mathematics*, The Exchange, Volume 1 (1), 2012, 57–65.

*(E,M)-Topological Functors on Topological Algebras*, International Journal of Pure and Applied Mathematics, Volume 46 (3), 2008, 321–332.

*On the Epireflective Hull of Topological Nearness Groups in the Category of Nearness Groups* (with Dr. H. L. Bentley), Quaestiones Mathematicae, 30 (4), 2007, 499–505.

*Cartesian Closed Categories of Topological Algebras*, International Journal of Pure and Applied



*Effective mathematics teaching methodologies to overcome challenges and increase achievement in mathematics*, The Academic Forum Conference, May 21–25, 2012.

*Providing effective mathematics instruction to overcome challenges and increase achievement in mathematics* (invited Wilson Lecture), Research Council on Mathematics Learning Conference, University of Central Arkansas, Conway, Arkansas, March 11–13, 2010.

*Math and its Literacy Connection* (invited talk), Ruth R. Searcy Literacy Conference, JSUMS, January 17–18, 2008.

*(E,M) – topological functors on topological algebra* (invited talk), Recent Developments in Mathematics and applications, Andhra University, Waltair, India, November 26–28, 2007.

*Progress of Women in Mathematical Sciences*, First Annual Conference on Advancing the Status of Diverse Women in Science, Technology, Engineering and Mathematics (sponsored by Jake Ayers Institute for Research, JSUMS, and Center of Studies in Higher Education, University of California–Berkeley), Jackson, MS, November 10–12, 2006

*Reaching Gender Equity in Mathematical Sciences* (invited talk), The University of Toledo colloquium series, Toledo, OH, April 14, 2006.

*A Mathematics Course for Pre-Service Elementary Teachers using Inquiry Based Learning and Technology* (with Dr. R. Gompa), Louisiana Mississippi Section of the Mathematical Association of America 2006 Annual Meeting, Ruston, Louisiana, February 16–18, 2006.

*Essentially algebraic functors and topological algebra*, Joint Mathematics Meetings of AMS (American Mathematical Society) and MAA (Mathematical Association of America), Cincinnati, Ohio, January 12–15, 1994.

*Cambridge Experience*, Undergraduate Colloquium Series, Department of Mathematical Sciences, Ball State University, February 4, 1993.

*Universal algebras having canonical function spaces*, AMS and LMS (London Mathematical Society) Joint Meetings, Cambridge, England, June 29–July 1, 1992.

*On cartesian closed universal algebras*, Joint Mathematics Meetings of AMS and MAA, Baltimore, Maryland, January 8–11, 1992.

*On nearness algebras*



*Sequential Soul*, MAA (Ohio Section) Spring Meeting, Kent State University, Kent, Ohio, April 29–30, 1988.

*Measurability of the Set of Convergence*, MAA (Ohio Section) Fall Meeting, The College of Wooster, Wooster, Ohio, October 30–31, 1987.

### ADJUDICATING PH.D. THESIS

*Lattice Ordered Soft Groups* (Candidate: L. Vijayalakshmi), Alagappa University, Karaikudi, India.

*Fuzzy Ideals of a Lattice Ordered Group* (Candidate: P. Bharati), Alagappa University, Karaikudi, India.

*Algebraic And Combinatorial Aspects Of Visual Cryptography* (Candidate: Sri Sabyasachi Dutta), University of Calcutta, Kolkata India.

### SELECTED WORKSHOP PRESENTATIONS

Conducted a *NCATE SPA Training* for 21 mathematics educators in Arkansas regarding how to construct assessments, how to collect and analyze the data, and how to write the required NCATE (currently CAEP) SPA report, sponsored by The Arkansas Association of Colleges for Teacher Education, Arkadelphia, Arkansas, April 16, 2009.

Conducted a workshop on the *Use of Graphing Calculators for an Effective Teaching of Mathematics*, Powell Middle School, Jackson, Mississippi, February 10, 2007.

Presented two (8-Saturdays) workshops on *Dynamic Classroom Assessment Training* for in-service teachers, sponsored by the Mississippi Department of Education, Spring 2006 and Fall 2005.

Organized and presented a workshop (with Dr. R. Gompa) on *WeBWork*, an internet-based method for delivering homework problems to mathematics students over the internet, April 25, 2003 (27 high school teachers participated in the workshop).

### MENTORING AND FOSTERING UNDERGRADUATE RESEARCH

Served on the committee for Undergraduate Research Forum held on April 12, 2015 and April 13, 2014.

Hosted/Organized undergraduate research conferences: *TROY MathFest 2013* at Troy University Troy Campus on April 6, 2013; *TROY MathFest 2012* at Troy University Montgomery Campus on February 25, 2012; *TROY MathFest 2011* at Troy University Dothan Campus on March 26, 2011.

Mentored undergraduate students (Nicholas Wingard and Kristin Meyers) who presented in a poster session in *2013 Student Research Forum*, Troy University Dothan Campus, April 14, 2013.

Served as a moderator for a session in *Student Research Forum*, April 15, 2012.

Mentored undergraduate students (Daryl Williams, Bianca Register, Amber Newton, Rebecca Lester, Casey Coleman, and Amie Lednicky) who presented talks in *2012 Student Research Forum*, Troy University Dothan Campus, April 15, 2012.

Mentored an undergraduate student, Emerson Viles, who presented a talk on *Applications of Mathematics on Submarines*, Troy MathFest 2011, Troy University–Dothan campus, March 26, 2011.

Served as a Judge, Undergraduate Research Poster Competition, Joint Mathematics Meetings, New Orleans, January 7, 2007.

### INVITED GUEST LECTURES

Presented (at Troy University Dothan Campus) two lectures for world religions classes in Spring 2012 and in Fall 2011; one guest lecture for a sociology class in Fall 2010.

Presented two invited talks at JSUMS on March 7, 2011 and November 5, 2010.

Presented a seminar, *Women in Mathematics*, for in-service teachers and counselors, 26th Annual Mathematics and Engineering Fair, JSUMS, March 31, 2006.

Presented a seminar, *Gender Equity: Are we there yet?*, 25th Annual Mathematics and Engineer Fair, JSUMS, April 15, 2005.

Presented a talk on *On Gender Equity in Science and Mathematics*, 2005 International Week, JSUMS, April 6, 2005.

Presented, by invitation, motivational speeches on *the importance of mathematics* for elementary students at Northwestern Rankin Elementary School, Fall 2005.

### SERVICE ON DEPARTMENTAL COMMITTEES

Associate Chair, *Assessment Committee*, Troy University, 2012–2016.

Member, *Academic Discipline Committee*, Troy University, 2012–2016.

Member, *Technology/Instructional Design Committee*, Troy University, 2012–2016.

Member, *Website and Public Relations Committee*, Troy University, 2012–2016.

Member, *Curriculum Committee*, JSUMS, 2004–2008.



Member, *Strategic Planning – Assessment Committee*, JSUMS, 2008.

Member, *NCATE (currently CAEP) steering committee*, JSUMS, 2005–2007.

Member, *Brain Trust*, College of Education and Human Development, JSUMS, March 30, 2007.

### **SERVICE IN DISCIPLINE**

Member representing Jacksonville State University, Alabama Articulation and General Studies Committee (AGSC) / Statewide Transfer and Articulation Reporting System (STARS) – *Mathematics discipline committee*, 2017–2018.

Member, International Program Committee, The 11th international conference on *Mathematical Sciences for Advancement of Science and Technology 2017* (Dec 21-23, 2017).

Member, *Location and Nomination Committee*, Louisiana/Mississippi Section of the Mathematical Association of America, 2007–2010.

Member, *Necrology Committee*, Mathematical Association of America–Louisiana Mississippi section, 2006–2010.

Liaison to *Mathematical Association of America*, 2012–2016, 2005–2010.

Elected member of the executive board, *Mississippi Association of Mathematics Teacher Educators*, 2009.

Member, *Informing Science Institute*, 2004–2008.

Member, *Mississippi Department of Education Science Curriculum Advisory Board*, 2005–2006.

### **MEMBERSHIP IN EDITORIAL BOARD**

Member, International Review Board, *International Journal of Doctoral Studies*, Informing Science Institute, Santa Rosa, California, 2006–2010.

Member, Editorial Review Board, *Interdisciplinary Journal of Knowledge and Learning Objects*, Informing Science Institute, Santa Rosa, California, 2004–2008.

## SELECTED PROFESSIONAL SERVICE AS PEER REVIEWER

## **AWARDS AND HONORS**

Recognized by Alabama Commission on Higher Education (ACHE) for the success and achievement as the project director for *Wiregrass Math, Science, and Technology Leadership Academy* in the Commissioners' meeting held in Montgomery, Alabama on June 9, 2017.

Nominated for the prestigious *Wallace D. Malone, Jr. Distinguished Faculty Award* (This award is presented in recognition of exceptional work ethic, ideas and vision, continuous scholarly productivity