Nihal J. Siriwardana

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Education

University of Wisconsin – Milwaukee
Ph.D. in Mathematics, August 1999
M.S. in Mathematics, May 1989

University of Colombo, Sri Lanka
B.Sc. in Mathematics, December 1984
(University of Colombo, Kumarathunga Munidasa Mawatha, Colombo –03, Sri Lanka.)

Professional Experience

- Sept 2018 – present, Assistant Professor
  Department of Mathematics, Prairie View A&M University, Prairie View, Texas

  Sept 2017 to August 2018, Lecturer II
  Department of Mathematics, Prairie View A&M University, Prairie View, Texas

  Courses Taught: (New course numbers)
  Math 1342 – Elementary Statistics, Math 2413 – Calculus and Analytic Geometry I,
  Math 2414 – Calculus and Analytic Geometry II, Math 4306 – Numerical Analysis,
  Math4317 – Advanced Mathematics for Engineers, Math 3302 – Probability and Statistics,

  Courses Taught: (Old course numbers)
  Math 1103 – Contemporary Mathematics, Math 1113 – College Algebra, Math 1115 –
  College Algebra and Trigonometry, Math 1124 – Calculus with Analytic Geometry I, Math
  1153 – Finite Mathematics, Math 2003 – Elementary Statistics (face-to-face and online),
  Math 2024 – Calculus with Analytic Geometry II, , Math 2153 – Calculus-Business, Life and
  Social Sciences, Math 2043 – Ordinary Differential Equations, Math 3023 – Probability and
  Statistics, Math 4063 – Numerical Analysis, Math 4173 – Advanced Engineering
  Mathematics

- August 2015 – July 2017 **Adjunct Assistant Professor**
  Department of Mathematics, College of Staten Island, Staten Island, NY
  Courses Taught:
  MTH 121 – Discrete Mathematics, MTH 229 - Matlab, MTH 330 - Applied Mathematics I
  Summer 2017 - Taught MTH 113 Elementary Statistics class for "College Now" program

- August 2010 to May 2015**, Professor of Mathematics**
  August 2005 to July 2010, **Associate Professor of Mathematics**
  August 2000 to July 2005, **Assistant Professor of Mathematics**
  Department of Computer Science, Technology and Mathematics, Lincoln University, Missouri

Courses Taught: (Most are for multiple semesters)
(1).Intermediate Algebra (2).Applied Algebra (with TI – 83,TI – 84 and TI – 86)
(3).College Algebra (with TI – 83, TI – 84 and TI – 86) **(4).Elementary Statistics with TI – 84** (5).Pre-calculus (6).Technical Applications of Pre-calculus (with **Mathematica**)
(7).Analytic Geometry and Calculus (8). Analytic Geometry and Calculus II (9).Analytic Geometry and Calculus III (10).Linear Algebra (11).Introduction to Mathematical Programming (**Mathematica**) (12).Numerical Analysis (13).Introduction to Microcomputers

- September 1997 to July 2000, **Full -Time Lecturer of Mathematics**
  Ohio State University at Newark, Ohio

  Courses Taught: (Most are for multiple quarters)
  (1).Beginning Algebra I (2).Beginning Algebra II (3).Intermediate Algebra (4).Finite Mathematics (5).College Algebra (6).Calculus I (7).Calculus II **(8).Elementary Statistics (Data Desk was used for Labs) (9).Introduction to the Practice of Statistics(TI – 83, Data Desk) (10).Business Statistics**

- September 1987 to August 1997, **Teaching Assistant/Part time Lecturer**
  University of Wisconsin – Milwaukee, Wisconsin
  Courses taught: (Most are for multiple semesters)
  (1).Intermediate Algebra (2).College Algebra (3).Trigonometry **(4).Survey in Calculus for Business and Social Science Students** (5).Calculus and Analytic Geometry I (6).Calculus and Analytic Geometry II (7).Numerical Analysis Lab for Senior Students (Lab sections used the software package "Numerical Analysis Tutor" by David Schultz and D. Doers, Addison – Wesley 1989) **(8).Elementary Statistics**

- January 1986 to August 1987, **System Analyst/Programmer**
  Computer division, Bank of Ceylon, 75 Janadhipathi Mawatha, Colombo 01, Sri Lanka.

  Duties at Bank of Ceylon included Programming in COBOL, ASSEMBLY and some administrative work.

- July 1985 to December 1985, **Assistant Lecturer**
  Department of Business Administration, University of Sri Jayawaydanapura, Nugegoda, Sri Lanka.

- January 1985 to June 1985, **Instructor**
  Dept. of Mathematics, University of Colombo, Kumarathunga Munidasa Mawatha, Colombo –03, Sri Lanka.

Publications

- Role of Cardiac Output during Sleep and Exercise of Human Respiratory Control System Model with Multiple Transport Delays (with Saroj Pradhan and Saeed Dubas) to appear in Springer Nature - Research Book Series: Transactions on Computational Science & Computational Intelligence

- Steady Viscous Flow in a Cavity for Large Rayleigh Numbers and Small Prandtl Numbers (with Saeed Dubas and Saroj Pradhan) to appear in SPRINGER NATURE - Research Book Series: Transactions on Computational Science & Computational Intelligence.

- A High Order Finite Difference Method to Solve the Steady State Navier-Stokes Equations (with Saroj Pradhan), Applications and Applied Mathematics: An International Journal (AAM). Vol. 16 No. 1. pp. 361 – 382

- "Numerical Modelling of a Viscous, Incompressible Fluid Flow in a Channel with a Step"; to appear in the Springer's Research Book Series: Transactions on Computational Science & Computational Intelligence (Advances in Parallel and Distributed Processing and Applications), Series Editors: Hamid Arbania, et. al. Springer ID: 89066309 (Book ID: 495587_1_En).

- Numerical Modelling of a Viscous Incompressible Fluid Flow in a Channel with a Step with Saeed Dubas and Paul Bouthellier accepted to be published in Springer Nature -Research Book Series, July 2020.

- Efficient, High Order Scheme for the Heated Cavity Problem, (with Saeed M. Dubas, David H. Schultz and Paul Bouthellier) International Journal of Applied Science & Computations, Vol. 14 No. 1. April 2007.

- A High Order Method to Solve the Steady State Navier Stokes Equations, (with David Schultz) International Journal of Applied Science & Computations, Vol. 11 No. 2. August 2004, pp. 93 – 105.

- A Second Order Method to Solve the Steady State Navier Stokes Equations, Refereed conference Proceedings of the IMACS International Conference on Scientific Computing and Mathematical Modeling, (IMACS 2000, Milwaukee, Wisconsin) Published by the Institute for Applied Science and Computations, May 2000, pp. 289 – 292.

- On the Problem of Steady Flow Between a Rotating Circular Cylinder and a Fixed Square Cylinder, (with David Schultz) Refereed conference Proceedings of the IMACS International Conference on Scientific Computing and Mathematical Modeling, (IMACS 2000, Milwaukee, Wisconsin), Published by the Institute for Applied Science and Computations, May 2000, pp. 166 – 169.

- Web Page Design and Java Applets, (With Saeed Dubas and Khalid Dubas) Proceedings of the 34th Annual Meeting of the Southern Chapter of the Institute for Operations Research and the Management Sciences (SE INFORMS) Myrtle Beach, South Carolina, Oct 1 – 2, 1998, pp 126 – 127.

- Jay H. Beder has acknowledged the contributions of Nihal J. Siriwardana in the correction, The Problem of Confounding in Two – Factor Experiments. commun. statist. – theory meth., 23(7), 2131-2132 (1994)

Presentations

- Presentation "An Efficient Scheme for Solving Steady State Navier Stokes Equations" at the 42nd Texas Differential Equations Conference held at Texas A&M University at Corpus Christy on March 31, 2019
- Colloquium talk "Confounding in $a \times p$ experiments" at department of Mathematics at Prairie View A&M University on March 23, 2018.
- A Fourth Order Method for Solving Navier Stokes Equations Written in Stream Velocity form. Presented at the AMS – MAA joint meetings in New Orleans, January 2001.
- A Second Order Method to Solve the Steady State Navier Stokes Equations. Presented at IMACS 2000, Milwaukee, Wisconsin, May 2000.
- On the Problem of Steady Flow Between a Rotating Circular Cylinder and a Fixed Square Cylinder. Presented at IMACS 2000, Milwaukee, Wisconsin, May 2000.
- High Order Numerical Methods for the Navier Stokes Equations. Presented at the Math Colloquium, Department of Mathematics, University of Wisconsin – Milwaukee, July 1999.
- The Problem of Steady, Incompressible, Viscous flow between a rotating circular cylinder and a fixed rectangular cylinder. Presented at the joint AMS-MAA Mathematics conference in San Diego, January 1997.

Professional Meetings and Workshops

- Participated in the 42nd Texas Differential Equations Conference held at Texas A&M University at Corpus Christy on March 31, 2019
- Participated in Faculty Friday workshops on May 2018, May 2019
- Midwest Numerical Analysis Seminar, Milwaukee, April 2014. (Undergraduate research conducted under my supervision by Mr. James Schrader and Ms. Aisha Thornton was presented by Mr. James Schrader at the seminar)
- Learn to Learn workshop – Lincoln University, August 2013.
- Matlab Programming – Minneapolis, June 2010.
- MAA Missouri section meeting at Kirksville, April 2009.
- QUALITY EDUCATION FOR MINORITIES (QEM) NETWORK, NSF's Discovery Research K 12 (DR-K12) Program, Atlanta, GA, Saturday October 21, 2006.
- Quality Education for Minorities (QEM) Network Teacher Professional Continuum Information and Technical Assistance Workshop, Albuquerque, New Mexico, Friday March 10, 2006
- MAA Missouri section meeting at St. Joseph, March 2005.
- TI-83 Developmental Algebra College Short Course "Using a Function Approach", (Held at Lincoln University, Co-Sponsored by the Ohio State University, Texas Instruments and Lincoln University), July 26 – 27, 2004.
- Administering Exams thru BB, conducted by CTL, Lincoln University, March 03, 2004.
- AMS – MAA joint meetings in New Orleans, January 2001.
- Conference on "Institutionalizing Undergraduate Research" held by the Council on Undergraduate Research, Coastal Carolina University, Conway, SC on October 20 – 22, 2000.

- IMACS International Conference on Scientific Computing and Mathematical Modeling, Milwaukee, Wisconsin, May 2000.
- Midwest Numerical Analysis Seminar, Milwaukee, April 1997.
- AMS – MAA joint meetings in San Diego, January 1997.
- AMS – MAA joint meetings in San Francisco, January 1994.

Major Committee Assignments / Major University Service

- Member of Mathematics Department Undergraduate Curriculum/Degree Program Committee 2021, 2022, 2023.
- Member of Colloquium Committee Department of Mathematics 2020, 2021, 2022.
- Member of AAM Manuscript Editors Committee: Edited for grammar, punctuation and formatted articles written in Microsoft Word for publication in the journal of "Applications and Applied Mathematics" December 2017, June 2018 and December 2018, June 2019 and December 2019, June 2020 and December 2020 and June 2021 and December 2021, June 2022 and December 2022 issues.
- Member of Mathematics Departmental Scholarship Committee. Evaluated scholarship applications at the beginning of Fall 2018 semester.
- Chair, Master Program in Statistics committee. Prepared a list of HBCU's and contact information to promote the program in the event the program is approved, Spring 2019.
- Department Representative (represented the department of Computer Science, Mathematics and Technology, Lincoln University of Missouri) of the Executive Committee of the Faculty Senate from 2009 to 2015.
- University Assessment Committee. (August 2009 to August 2012).
- Executive Committee of the Faculty Senate (represented the department of Computer Science, Mathematics and Technology). 2009/2010.
- Scholarship and Student Aid Committee, 2008/2009, 2009/2010.
- Professional Development Committee of the Department, 2009/2010.
- Dual Credit Liaison between Helias high school and Lincoln University for Pre-Calculus course offered by Mr. Matt Zeitz, Spring 2009-Spring 2015.
- Dual Credit Liaison between Jefferson City high school and Lincoln University for Calculus AB course offered by Mrs. Pauline Eggers, Spring 2009.
- Dual Credit Liaison between Dixon high school and Lincoln University for College Algebra course offered at Dixon High School by Mr. Bernard Rowden, Spring 2009.
- College Promotion and Tenure Committee, 2008/2009.
- Technology Faculty Search Committee, 2007/2008.
- College Promotion and Tenure Committee, 2006/2007.
- Judge – Lincoln University Regional Science Fair, Spring 2001, Spring 2002, Spring 2005, Spring 2006.
- Judge – Missouri Academy of Science Paper Competition for High School Seniors, Spring 2005
- Mathematics Faculty Search Committee, Chair 2004/2005 (2nd search)
- Mathematics Faculty Search Committee, 2004/2005.

- Recruiting and Retention Committee of Mathematics Department, Chair 2003/2004.
- Academic Routine Committee, 2002/2003.
- Mathematics Placement Exam Committee, 2002/2003.
- Mathematics Faculty Search Committee, 2002/2003.
- Mathematics Faculty Search Committee, 2001/2002.
- Search Committee to Hire a New Recruiter for the Division of Agriculture, Natural Sciences and Mathematics, Fall 2001.
- Mathematics Faculty Search Committee, 2000/2001.
- Teaching Assistant Evaluator, Department of Mathematics, UWM August 1996.
- Panel Speaker of Orientation for New International Teaching Assistants, UWM August 1994.

Grants
- Co-PI of APPS (Applying performance pyramid to stem education) NSF grant 2013/2014 and 2014/2015.

Sponsorship of Students
- Advisor for the team from Lincoln University that competed at "Missouri Collegiate Mathematics Competition", April 16/April 17, 2009.
  (http://www.math-cs.ucmo.edu/~curtisc/contest/2009/result09.html)
- Co-Sponsored (with Dr. Sturdevant) the visit of pre-Engineering/Engineering students from Lincoln University to the Nuclear Facility at Missouri University of Science and Technology at Rolla, Fall 2007.
- Advisor for two teams from Lincoln University that competed at "Missouri Collegiate Mathematics Competition", March 31/April 01, 2005.
  (http://www.math-cs.cmsu.edu/~hchen/contest/photos/2005/index.html)

Consultancy
- University of Pittsburgh in Pennsylvania system tenure process involves consultation of the people working in the discipline outside the University of Pittsburgh system. I had the privilege of evaluating the materials presented by Dr. Paul Bouthellier to the department of Mathematics at University of Pittsburgh at Titusville, for his tenure. He was awarded the tenure effective April 02, 2008.

Awards
- Recipient of the Student Choice Award (from Multi-Cultural Student Alliance) for the best teacher at the Ohio State University at Newark in 1999

Computer Software Skills
Computer Programming Languages: FORTRAN, C++, JAVA

Statistical Packages I have used in teaching:　　　MINITAB, SAS Statistical Packages
Mathematical Packages I have used in teaching:　　MATLAB, MATHEMATICA

References

1. Dr. Dimitar Michev, Professor, Department of Mathematics, Prairie View A&M University
    Tel: 936 261 1982, dimichev@pvamu.edu

2. Ms. Elizabeth Stoerkel, Lecturer, Department of Mathematics, Prairie View A & M University
    Tel: 936 261 1979, emstoerkel@pvamu.edu,   emstoerkel@academicplanet.com

3. Dr. Indika Wickramasinghe, Associate Professor, Department of Mathematics, Prairie View
    A&M University, Tel: 936 261 1984, iprathnathungalage@pvamu.edu

4. Dr. Emmanuel Appiah, Assistant Professor, Department of Mathematics, Prairie View A&M
    University, Tel: 936 261 1980, emappiah@pvamu.edu

5. Dr. Qingxia Li, Associate Professor, Department of Mathematics, Fisk University,
    Tel: 615-329-8542, qli@fisk.edu,   qingxia.li81@gmail.com