Miraj Chamara Samarakkody

"Dedicated to advancing research and academic excellence in differential geometry, committed to contributing to the growth of both the institute and society with my full potential."

S Rajakaruna Samarakkodige Miraj Chamara Samarakkody

📞 +1 (769) 601 6290 ✉ miraj.samarakkody@gmail.com 🌐 mirajcs.github.io

Research Interest

Minimal surfaces, generalized elastic curves, and applications of differential geometry in mathematical physics, biology, and data science.

Professional Experiences

- **Assistant Professor**   **Spring 2025 - Present**
  Department of Mathematics and Computer Science, Tougaloo College, MS.

- **Graduate Part-Time Instructor**   **Fall 2024**
  Department of Mathematics & Statistics, Texas Tech University, TX.

- **Research Assistant**   **Spring 2022 - Summer 2024**
  Mentors: Dr. Hung Tran and Dr. Álvaro Pámpano.
  Department of Mathematics & Statistics, Texas Tech University.

- **Graduate Teaching Assistant**   **Fall, 2021**
  Department of Mathematics & Statistics, Texas Tech University.

Short Visits

- **Research Mentor**   **Summer 2025**
  Virtual Math Circle, Department of Mathematics, Louisiana State University.

Education

Texas Tech University, TX.   **Fall 2021 - Spring 2024**
Ph.D. in Mathematics, May, 2025.
Advisors: Dr. Hung Tran (Chair), Dr. Álvaro Pámpano (Co-chair).

University of Peradeniya, Sri Lanka.   **2014-2018**
B.Sc. (Honors) Special in Mathematics.
Advisor: Dr. Shelton Perera.

Languages

- **English** - Excellent Proficiency.

- **Sinhala** - Native Proficiency.

Technical Skills

C, LaTeX, Julia, Python, Mathematica, Matlab, Lingo, Maple, Microsoft Office, Adobe Illustrator and Adobe Premier Pro.

Teaching

Tougaloo College

- **MAT221 - Calculus I**; Fall 2025, Spring 2026

- **MAT222 - Calculus II**; Spring 2025, Spring 2026

- **MAT316 - Differential Equations**; Fall 2025

- **MAT326 - Introduction to Probability**; Fall 2025

- **MAT414 - Modern Algebra**; Spring 2025

- **MAT426 - Advanced Calculus**; Spring 2025, Fall 2025

- **MAT429 - Complex Variables**; Spring 2026

- **MAT434 - Theory of Mathematical Statistics**; Spring 2025, Spring 2026

Texas Tech University
- **MATH 1452 - Calculus II with Applications**; Fall 2024

Grants

- **PI**, SCALE Program (Partenership with Purdue University), $73,094.77.
  Project: Microelectronic Workforce Development Project for Radiation-Hardening.

Fellowships

- **Dr. Shelby Hildebrand Graduate Math Fellowship** - Texas Tech University. 2023-2024
  Amount: $10,000

- **AT & T Graduate Fellowship** - Texas Tech University   2021-2025
  Amount: $16,000

Awards and Honors

- **Create Possible Scholarship** - Texas Tech University.   2022

- **University Prize for Academic Excellence** - University of Peradeniya   2018

- **Peradeniya University Alumni Australia Victoria Chapter Scholarship for Academic Excellence in Mathematics**   2015

Presentations

Conference Talks
- "*Closed $p-$Elastic Curves in 2-Space Forms,*" AMS Sectional Meeting (Meeting No: 1198), University of Texas, San Antonio, September 14-15, 2024.

- "*Closed p-Elastic Curves in Spheres of Lorentz-Minkowski Space.*", Texas Analysis and Mathematical Physics Symposium, Texas A&M University, February 10, 2024.

- "*Geometric Behavior of a Certain Class of Quotients of Finite Blaschke Products*", ICMME, Post Graduate Institute of Science, University of Peradeniya, March, 2019

Posters
- "*Closed $p-$Elastic Curves in 2-Space Forms,*" Texas Geometry and Topology Conference (68th Meeting), Texas A&M University, College Station, November 8-10, 2024.

Seminars

- "*On Some Variational Problems in Curves and Surfaces*"- Probability, Differential Geometry and Mathematical Physics Seminar, Texas Tech University (January 21st, 2025).

- "*On Some Variational Problems in Differential Geometry*"- Probability, Differential Geometry and Mathematical Physics Seminar, Texas Tech University (November 01st, 2023).

- "*Minimal Surfaces*"-Probability, Differential Geometry and Mathematical Physics Seminar, Texas Tech University (November 02nd, 2022)

Publications

- A. Pámpano, M. Samarakkody, H. Tran, "*Closed $p-$Elastic Curves in Spheres of $\mathbb{L}^3$,*" JMAA, 542(2):129147, 2025.

- S.R.S.M.C. Samarakkody, P.G.R.S. Ranasinghe, A.A.S. Perera, "*Geometric Behavior of a Certain Class of Quotients of Finite Blaschke Products*," ICMME, Post Graduate Institute of Science, University of Peradeniya, Vol. 1. (2019).

Leadership and Community Involvement

- "**Commission on Animal Care – Institutional Review Board (IRB)**," *Member*, Tougaloo College.   2025-2026

- "**Kincheloe Research Symposium**," *Judge*, Tougaloo College.

- "**Summer Chess Camp 2024**," *Counselor*, Texas Tech University.

- "**Art & Humanities Conference 2023**," *Judge*, Texas Tech University.

- "**Math Circle 2023-2024**,"*Mentor*, Department of Mathematics & Statistics, Texas Tech University.

Memberships in Professional Societies

- Member of **American Mathematical Society**.   2021-2025

- Member of **SIAM TTU Chapter**.   2021-2025