CURRICULUM VITAE
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WORK EXPERIENCE

- **Visiting Assistant Professor**: University of California, Riverside, CA, USA. 01/2008 - present.

    - Member of Differential Geometry and Partial Differential Equations research groups.
    - Taught Single Variable Calculus, Several variables Calculus, Differential Equations, Linear Algebra, Intermediate Analysis, Optimization, and Discrete Mathematics.
    - Taught Putnam Mathematical Competition Problem-Solving Seminars.

- **Senior Lecturer**: University of Colombo, Colombo, Sri Lanka. 04/2009 - 08/2009.

    - Taught Functional Analysis for fourth year special degree students, and supervised a project in Stochastic Analysis.

- **Visiting Assistant Professor**: Lehigh University, Bethlehem, PA, USA. 08/2007 - 12/2007.

    - Worked on Ricci flow and gave three talks in the Ricci flow seminar.

- **Postdoctoral Fellow/Member**: Mathematical Sciences Research Institute (MSRI), Berkeley, CA, USA. 08/2006 - 05/2007.

    - Participated in the year long program in "Geometric Evolution Equations and Related Topics".
    - Worked on geometric analysis, in particular in the study of Ricci flow, mean curvature flow, and the other geometric flows. Gave several talks in the Postdoctoral seminars.

- Teaching Assistant: Dept. of Mathematics, Lehigh University, USA.
  Courses for which I taught recitations: Calculus I, II, & III, Business Calculus I, & II.
  Instructor (with full responsibility) Business Calculus: spring 2004 and summer 2004.

- Research Assistant: Dept. of Electrical Engineering and Computer Science, Lehigh University, USA. Member of the Parallel and Distributed Processing laboratory and **developed several programs including parallel numerical programs**.

- Graduate Assistant: Dept. of Pure & Applied Mathematics, Rhodes University, South Africa. Teaching Assistant for undergraduate Engineering Calculus.

- **Lecturer** in Mathematics: Dept. of Math & Stat, University of Jaffna, Sri Lanka. Taught with full responsibility several undergraduate courses.

EDUCATION

- **Ph.D. in Mathematics**: Lehigh University, USA. May 2006.

    - Research area: Geometric Analysis, Differential Geometry, and Partial Differential Equations.
    - Thesis topic: Evolution of Curves by Curvature Flow. Advisor: David Johnson.

- – Coursework includes Differential Geometry, Topology, Real & Complex Analysis, Algebra, Partial Differential Equations, Probability Theory, Advanced Stochastic Processes, Financial Calculus, Calculus of Variations, Algebraic Geometry, Lie Groups, Wavelets, and K-Theory.

- **MS in Computer Science**: LEHIGH UNIVERSITY, USA.

  - – Concentrated on: Parallel and Scientific Computing.
  - – Project: Analysis and Implementation of Parallel LU-Decomposition with Different Data Layouts.

- **M.Sc. in Mathematics with Distinction**: RHODES UNIVERSITY, South Africa.

  Thesis title: Generalization of Filters and Uniform Spaces (General Topology).

- **B.Sc. (Hons)**: UNIVERSITY OF JAFFNA, Sri Lanka.

  Major subject: Mathematics; Minor subject: Physics.

AWARDS & ACHIEVEMENTS

- Awarded the **Postdoctoral Fellowship** from Mathematical Sciences Research Institute, Berkeley, CA. 08/2006 - 05/2007

- Awarded the **Gotshall Fellowship** from Dept. of Electrical Engineering and Computer Science, Lehigh University.

- Awarded the **Foundation for Research Development (FRD) Grant**, South Africa.

- Awarded the **"Prof. A. Thurairajah Gold Medal for the best all-round performance in the Faculty of Science"**, University of Jaffna.

- Awarded a **merit scholarship** based on the G.C.E (A/L) examination (obtained Distinction in Pure Mathematics, Applied Mathematics, and Physics) for the undergraduate degree, Sri Lanka.

PUBLICATIONS

- *"Curve Shrinking Flow on a Riemannian manifold with underlying manifold evolves by Ricci Flow"* in preparation.

- *"Curvature flow of curves on a Riemannian manifold and its application to find closed geodesic"* in preparation.

- *"Singularity Analysis of Evolving Curves using the Distance Comparison Principle"*, with David Johnson, Submitted for publication (JDE09-803).

- *"Singularity Formation of Embedded Curves Evolving on Surfaces by Curvature Flow"*, with David Johnson, Int. J. Pure Appl. Math. 61 (2010), no. 2, 121–146.

- *"Evolution of Curves by Curvature Flow"*, Ph.D. Thesis, Lehigh University. May 2006.

- *"Analysis and implementation of parallel LU-decomposition with different data layouts"*, with E. E. Santos, Preprint.

- *"Generalized Filters 2"*, with M. H. Burton and J. G. Garcia, Fuzzy Sets and Systems, North-Holland, 106, 393-400.

- *"Generalized Filters 1"*, with M. H. Burton and J. G. Garcia, Fuzzy Sets and Systems, North-Holland, 106, 275-284.

- *"Generalization of Filters and Uniform Spaces"*, M.Sc. Thesis, Rhodes University.

ACADEMIC SERVICE

- Have been running the Putnam Problem Solving Sessions for UCR undergraduates: `http://math.ucr.edu/~muralee/putnam`

- Co-organizer Postdoctoral Seminar, MSRI, Spring 2007.

INVITED TALKS

- Singularity formation of embedded curves evolving on surfaces by curvature flow: Idaho/Washington Mathematics Colloquium, University of Idaho; March 2, 2010.

- Singularity formation of embedded curves evolving on surfaces by curvature flow: Mathematics Colloquium, University of Tennessee, Knoxville; February 26, 2010.

- The formation of singularities in the curve shortening flow: Differential Geometry Seminar, University of California, San Diego; January 20, 2010.

- Gave two talks on Curvature bound for curve shortening flow via distance comparison: Partial Differential Equations seminar, UCR, Fall 2009.

- Gave two talks on Curve Shrinking Flow on a Riemannian manifold with underlying manifold evolves by Ricci Flow: Partial Differential Equations seminar, UCR, Winter 2009.

- Gave two talks on Singularity Formation of Embedded Curves Evolving on Surfaces by Curvature Flow: Partial Differential Equations seminar, UCR. Fall 2008.

- Gave series of talks (seven talks) on Curve Shortening Flow in the Plane, in a Riemannian surface, in the $\mathbf{R}^3$, and in a Riemannian manifold: Partial Differential Equations seminar, UCR. Spring 2008

- Isoperimetric estimates for the Curve Shrinking Flow in Riemannian surfaces: Differential Geometry seminar, UCR. Winter 2008.

- Li-Yau-Hamilton Estimate for the Ricci Flow: Ricci Flow Seminar, Lehigh University, PA. October 3, 2007.

- Li-Yau Differential Hanarck Inequality: Ricci Flow Seminar, Lehigh University, PA. October 1, 2007.

- Evolution of Curvatures under the Ricci Flow: Ricci Flow Seminar, Lehigh University, PA. September 3, 2007.

- Singularity formation of Evolving Embedded Curves in Surfaces: Postdoctoral Seminar in Geometric Flows, Mathematical Sciences Research Institute, Berkeley, CA. October 3, 2006.

- Monotonicity of Isoperimetic ratios for the Curvature Flow in Surfaces: Joint Postdoctoral Seminar, Department of Mathematics, University of California, Berkeley/Mathematical Sciences Research Institute, Berkeley, CA. September 29, 2006.

- Isoperimetric Estimates for the Curvature Flow: Graduate Student Colloquium, Lehigh University. October 20, 2005.

- Evolution of Curves by Curvature Flow in the plane: Graduate Student Colloquium, Lehigh University. October 11, 2004.

- Stokes' Theorem on Manifolds: Proseminar, Lehigh University. April 5, 2004.

PROFESSIONAL AFFILIATIONS

- American Mathematical Society (AMS).

- Phi Beta Delta International Honor Society for International Scholars.

CONFERENCES ATTENDED

- Conference in Geometric Analysis: Pacific Institute for the Mathematical Sciences (PIMS), University of British Columbia, Canada. July 20 - 30, 2010.

- Research Program in Image Processing: Institute for Advanced Study/Park City Math Institute (PCMI), June 27 - July 17, 2010.

- AMS Fall 2009 Sectional Meetings, UCR. November 7 - 8, 2009.

- A series of Talks on "Perelman's proof of the Poincaré conjecture": Terence Tao, UCLA. Spring 2008.

- The Fourth Ahlfors-Bers Colloquium: Rutgers University, May 8 - 11, 2008.

- Lehigh University Geometry/Topology Conference: 2007, 2004, 2003, 2001 & 2000.

- Hot Topics: Minimal and Canonical Models in Algebraic Geometry: Mathematical Sciences Research Institute (MSRI), April 16 - 20, 2007.

- Recent Developments in Numerical Methods and Algorithms for Geometric Evolution Equations: Mathematical Sciences Research Institute (MSRI), March 16 - 17, 2007.

- Geometric Evolution Equations: Mathematical Sciences Research Institute (MSRI), March 12 - 17, 2007.

- XIVth Southern California Geometric Analysis Seminar: University of California, San Diego. February 10 - 11, 2007.

- Interactive Parallel Computation in Support of Research in Algebra, Geometry and Number Theory: Mathematical Sciences Research Institute (MSRI), January 29 - February 02, 2007.

- Analytic and Computational Aspects of Elliptic and Parabolic Equations: Mathematical Sciences Research Institute (MSRI), October 23 - 27, 2006.

- Introductory Workshop on Geometric Flows and Function Theory in Real and Complex Geometry: Mathematical Sciences Research Institute (MSRI). September 11 - 15, 2006.

- Connections for Women: Geometric Analysis and Nonlinear Partial Differential Equations, Mathematical Sciences Research Institute (MSRI). September 08 - 09, 2006.

- 21st Annual Geometry Festival: University of Pennsylvania, March 31 - April 2, 2006.

- Clay Mathematics Institute Summer School on Ricci Flow, 3-Manifolds and Geometry at the Mathematical Sciences Research Institute (MSRI). June 20 - July 15, 2005.

- JDG 2005, the Sixth Conference on Geometry and Topology: Harvard University. May 13 - 15, 2005.

- Joint Mathematics Meetings: Atlanta, Georgia. January 5 - 8, 2005.

- Current Developments in Mathematics: Harvard University & MIT. November 19 - 20, 2004.

- Cornell Topology Festival: May 7 - 10, 2004.

- Special Geometry Festival: Courant Institute of Mathematical Sciences, New York University. April 30 - May 2, 2004.

- Geometric Flows: Theory and Computation; Institute for Pure & Applied Mathematics (IPAM), University of California, Los Angeles. February 23-27, 2004.

- XIth Southern California Geometric Analysis Seminar: University of California, Irvine. February 21, 2004.

- Hanno Rund Conference on Relativity and Thermodynamics: University of Natal, Durban, South Africa.

EXTRA CURRICULAR ACTIVITIES

- Associations:
  - Editor of the Sports Council, University of Jaffna; Junior Treasurer of the Science Student Union (SSU), University of Jaffna; Member of the University Student Union (USU), University of Jaffna.

- Sports:
  - Soccer:
    * Represented the Third XI Soccer Team as Vice Captain and the Second XI Soccer Team as Captain (Grades 8 to 10): J/Mahajana College, Tellippalai.
    * Represented the First XI Soccer Team: St. John's College (Grades 11 & 12), Jaffna, which emerged as the Champions in the intercollegiate tournament. Also won the **colours award**.
    * Represented the University of Jaffna Soccer team for all four years. **Captained** the team in the third year in which year University of Jaffna secured the Championship in the IVth Sri Lanka University Games and obtained **Gold Medal**. Was awarded **full colours** for the three years in succession.
  - Athletics:
    * Represented University of Jaffna Athletic Team and Obtained the **first place** in the events 100 & 200 Meters in the Inter Faculty Athletic Meet in my first two years.
  - Cricket and Hockey:
    * Represented the University of Jaffna - Cricket and Hockey Teams in my second year.

REFERENCES

References available upon request.