

# KEHELWALA DEWAGE GAYAN MADURANGA

Department of Mathematics  
University of Kentucky  
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## EDUCATION

**University of Kentucky**, Lexington, KY, USA

Doctor Of Philosophy in Mathematics expected August 2020  
Master of Science (M.S.) in Mathematics May 2017

**Tennessee Tech University**, Cookeville, TN, USA

Master of Science (M.S.) in Mathematics May 2013

**University of Sri Jayewardenepura**, Nugegoda, Sri Lanka

Bachelor of Science (B.S.) in Mathematics April 2009

## RESEARCH INTERESTS

Numerical Analysis, Machine Learning , Deep Learning and Clifford Algebra.

## PUBLICATIONS

- (1) Maduranga, K. D. G., Helfrich, K., and Ye, Q. (2018). Complex unitary recurrent neural networks using scaled cayley transform. In Proceedings of AAAI 2019. arXiv:1811.04142. <https://doi.org/10.1609/aaai.v33i01.33014528>
- (2) Maduranga, K.D. G. and R. Abłamowicz: Representations and characters of Salingerosâ™ vee groups of low order, Bull. Soc. Sci. Lettres LÂodÂz SÂer. Rech. DÂeform. 66 (1) (2016), 43â“75.

## CONFERENCES ATTENDED

- Association for the Advancement of Artificial Intelligence, January 2019.

## CONTRIBUTED TALKS

- University of Kentucky Applied Math Seminar
  - Complex unitary recurrent neural networks using scaled Cayley transform, April 2018.
  - Theory of Inexact Krylov Subspace Methods and Applications to Scientific Computing (Master’s talk), March, 2017.

## AWARDS, FELLOWSHIPS, AND SCHOLARSHIPS

- External Awards
  - Mathematics Teaching Assistantship, Tennessee Tech University, 2011-2013
  - Stanley Dolzycki Memorial Scholarship Award, Tennessee Tech University, 2012
  - Mathematics Teaching Assistantship, Idaho State University, 2014
- Internal Awards
  - Mathematics Teaching Assistantship,, University of Kentucky, 2015- Present

## TEACHING EXPERIENCE

- University of Kentucky**– Teaching Assistant 2015- Present
- Primary Instructor
    - MA 213, Calculus III Summer II 2015
    - MA 213, Calculus III Summer II 2016
    - MA 214, Calculus IV Summer II 2017
    - MA 123, Elementary Calculus and its Applications Summer II 2018
  - Recitation Leader
    - MA 113, Calculus I Fall 2015
    - MA 113, Calculus I Spring 2016
    - MA 162, Finite Math and It's Applications Fall 2016
    - MA 123, Elementary Calculus and its Applications Spring 2018
    - MA 162, Finite Math and It's Applications Spring 2019
- Tennessee Tech University**– Teaching Assistant 2011– 2013
- Mathematics Tutor, TTU Library Learning Commons
  - Lab Assistant, Math 1000-Transitional Algebra
- University of Sri Jayewardenepura, Sri Lanka**– Instructor 2009-2010
- MAT 102 2.0 Differential Equation
  - MAT 103 1.0 Mathematical Tools and Computer Application I
  - MAT 127 2.0 Calculus II
  - MAT 128 1.0 Mathematical Tools and Computer Application II
  - MAT 203 1.0 Special Topics in Algebra and Geometry
  - MAT 202 3.0 Computer Programming
  - MAT 225 2.0 Real Analysis
  - MAT 227 2.0 Applicable Mathematics
  - MAT 302 2.0 Complex Analysis
  - MAT 328 1.5 Quantum Mechanics I
- University of Kelaniya, Sri Lanka**– Instructor 2009-2010
- AMAT 11032 Vector Analysis
  - PMAT 21035 Linear Algebra
  - AMAT 12042 Elementary Ordinary Differential Equations

## PROFESSIONAL AFFILIATIONS

- American Mathematical Society

## SERVICE AND OUTREACH

- **Lanka Plastic Industries (PVT) LTD**, Industrial Internship Training Program 2009
- **Project Team Member** - A Study of Strategic Planning Process of Richard Pieris And Company PLC, Sri Lanka.
- **Project Team Member** - Study of Leadership and Motivation at McLarens Holdings Limited, Sri Lanka.
- **Science Exhibition Committee Member** - Vidujaya Exhibition organized by University of Sri Jayewardenepura in celebrating its Golden Jubilee.