Department of Mathematics

Faculty of Science / University of Peradeniya



Dr. T. H. K. R. De Silva

B.Sc. (Perad.), Ph.D. (Tennessee, USA)

Senior Lecturer

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About Me

Dr. Kokum Rekha De Silva is an academic who enjoys both teaching and research. Since 2016 she is serving as a Senior Lecturer attached to the Department of Mathematics, Faculty of Science, University of Peradeniya. In 2007 she received the B.Sc. Special Degree in Mathematics with First Class Honours from the Faculty of Science, University of Peradeniya and in 2009 she joined the Department of Mathematics as a Probationary Lecturer. In 2013 and 2015, she graduated with a Masters Degree and a Ph.D in Mathematics from the University of Tennessee, Knoxville, USA. Her research interests are on mathematical modelling in the interface of Mathematics and Biology, optimal control theory and operations research.

Higher Education Qualifications

PhD	MSc	BSc
University of Tennessee, Knoxville USA (2015)	University of Tennessee, Knoxville USA (2013)	University of Peradeniya Sri Lanka (2007)

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Awards, Scholarships, Memberships & Fellowships

Summer Departmental Fellowship, University of Tennessee, Knoxville, USA

University Award for Academic Excellence 2006/2007, University of Peradeniya, Sri Lanka

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Positions Held

- Head, Department of Mathematics, Faculty of Science, University of Peradeniya- (01/01/2020 - 31/12/2022)
- Coordinator, Statistics and Operations Research Degree Programme at the Faculty of Science- (11/01/2018 - 11/01/2023)
- Secretary, Board of Study in Mathematics, PostgraduateInstitute of Science, University of Peradeniya, Sri Lanka- (2017 – 2022)
- Visiting Lecturer, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka- (2016 – Present)
- Visiting Lecturer, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka- (2020 - Present)
- Senior Lecturer (Grade II), Department of Mathematics, University of Peradeniya, Sri Lanka.- (2016 – Present)
- Visiting Lecturer, Faculty of Arts, University of Peradeniya, Sri Lanka- (2018 - Present)
- Lecturer (Probationary), Department of Mathematics, University of Peradeniya, Sri Lanka.- (2009 – 2015)
- Graduate Teaching Associate, Department of Mathematics, University of Tennessee, Knoxville, USA- (2011 – 2015)
- Graduate Teaching Assistant, Department of Mathematics, University of Tennessee, Knoxville, USA- (2010 – 2011)
- Temporary Lecturer, Department of Mathematics, University of Peradeniya, Sri Lanka.- (2007 – 2009)

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My Teachings

- MT325: Seminar
- MT402: Measure Theory
- MT411: Optimization Modeling

Research Interests (Research Fields/ Projects)

Mathematical modelling in the interface of Mathematics and Biology,

Infectious disease modelling,

Optimal control in ordinary differential equations and partial differential equations,

Operations research

Ongoing Research and Projects

- **Optimal control of the advective direction in a competition PDE model**
- **A mathematical model for Johne's Disease with the disease transmission through the environment.**
- **Mathematical Modelling of Dengue Epidemic**

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Key Publications

Discrete and Continuous Dynamical Systems - Series B - (2017)

Advection Control in Parabolic PDE Systems for Competitive Populations

Mathematical Biosciences and Engineering - (2017)

Modeling Environmental Transmission of MAP Infection in Dairy Cows

Conferences



Nothing to show under this subheading !!!

My Publications

Please goto the website.

https://sci.pdn.ac.lk/maths/staff/Rekha-De-Silva

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