

Bio-Data

Name : Dr. K. Radhakrishnan

Address (Residential) : TC-17/763, Saji Bhavan,
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Address (Official) : Assistant Professor,
Department of Mathematics
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Date of Birth : 31-05-1973

Qualifications : MSc Mathematics (University of Kerala, 1995)
PhD. Applied Mathematics (Cochin University of Science and
Technology, 2004)

PhD Thesis : Theory and Simulation of Rheological Parameters of Periodically
Forced Semi-dilute Suspensions of Slender Rods in simple Shear
Flow

Other Information:

- MSc First Rank
- Qualified NET
- Awarded CSIR Research Fellowship
- Two years of research experience at Regional Research Laboratory, CSIR, Trivandrum

Teaching Experience :

- Worked as Lecturer in Mathematics at LBS College of Engineering, Kasaragod, Kerala during the period 14-07-1999 to 01-09-2003.
- Worked as Lecturer in Mathematics at LBS Institute of Technology for Women, Thiruvananthapuram, Kerala during the period 02-09-2003 to 17-11-2004.
- Worked as Lecturer in Mathematics at NSS College, Nilamel, Kollam, Kerala during the period 18-11-2004 to 30-06-2009.
- Working as Assistant Professor in Mathematics at Mahatma Gandhi College, Thiruvananthapuram, Kerala since 01-07-2009.

Field of Interest : Non-linear Dynamics, Chaos Theory, Functional Analysis

Projects Handled:

- UGC Minor Research Project:
Title of the Project : Study of Possibility of Chaotic Dynamics of Rheological Parameters of Semi-dilute Suspensions of Slender Rods in Simple Shear Flow Without Any External Periodic Force. (2014-16).
- Guided Abhijith Aajayakumar on his Minor Research Project “Hilbert Space” under ASPIRE Scholarship. (2016-17)

List of Publications:

1. **“Theory for Semi-dilute Suspensions of Periodically Forced Slender Bodies Aligned Along Finite Set of directions,”** Journal of Chemical Engineering of Japan, Vol 32, No. 5, pp 573-580, 1999.
2. **“Numerical Evidence for the Existence of a Low Dimensional Attractor and Its Implications in the Rheology of Dilute Suspensions of Periodically Forced Slender Bodies,”** Physical Review - E., USA, Vol 60, No. 6, pp 6602-6609, 1999.
3. **“Simulation of Semi-dilute Suspension of Slender Rods: A Test Case,”** Journal of Chemical Engineering of Japan, Vol 35, No. 8, pp 744-752, 2002.
4. **“Effect of Hydrodynamic Interaction on Chaos Control in Semi-dilute Suspensions of Periodically Forced Slender Rods in Simple Shear Flow,”** Journal of Chem. Engineering of Japan, Vol 37, No. 11, pp 1408-1414, 2004.
5. **“Review of Chaos in the Dynamics and Rheology of Suspensions of Orientable Particles in Simple Shear Flow Subject to an External Periodic Force,”** Journal of Non-Newtonian Fluid Mechanics, Vol 129, pp 128-142, 2005. (Holland)

Books/Chapters in Books Published:

1. **“Suspension Rheology As A Paradigm System for Study of Aspects of Spatio-temporal Chaos,”** Nonlinear Dynamics: Integrability and Chaos, pp 305-312., (Narosa Publishing House, 2000).

Invited Talks :

1. “Open Software” at Mar Chrysostom College of Arts and Science, Adoor, Kerala on 13-11-2017.

Dr. K. Radhakrishnan