

PROFILE

Name	Dr.Rekha J
Position & Affiliation	Associate Professor, Department of Basic Sciences
Areas of Interest	Fluid Mechanics
Email	Rekha.maths@cambridge.edu.in
LinkedIn ID	REKHA J SHIVASHANKAR
Google Scholar ID	
Orchid ID	
Vidwan ID	
Scopus ID	57777863800
Professional Webpage (if any)	

Educational Qualifications:

Ph.D	Visvesvaraya Technological University	India	2022
M Sc	Jnana Sahyadri, Kuvempu University	India	2000
B Sc	Sahyadri Degree College, Kuvempu University	India	2000

Brief Profile: (write about yourself)

Completed M Sc and PhD in Fluid Mechanics . Has over twenty four years of Academic and Global Teaching Experience. The areas of interest are Application of Fluid Mechanics, Topology, Discrete Mathematical Structures.. Associated with CiTech from March 2011 onwards.

Add about setting up labs and consultancy (if any)

Guiding students at various levels (BE, MTech and PhD)

Courses Taught: Engineering Mathematics I,II,III,IV.Discrete Mathemaics,Graph Theory

Publications:

Publications	
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	<p>1. Solute transport exponentially varies with time in an unsaturated zone using finite element and finite difference method (International journal of Modern Physics. Volume 37, NO.9(2023) 2350089. DOI:10.1142/S0217979223500893.</p> <p>2. Mathematical Modelling of Convective Transport of Dispersion in One-Dimensional Flow of Saturated and Unsaturated Porous Media. International Journal of Mathematics Trends and Technology Volume 67 Issue 7, 169-177, July, 2021 ISSN: 2231 – 5373 /doi:10.14445/22315373/IJMTT-V67I7P520 © 2021.</p> <p>3. Mathematical Analysis of Transport of Contaminants Through Unsaturated Porous media in Applied Soil Column Experiments. International Journal of Engineering Research & Technology (IJERT) http://www.ijert.org ISSN: 2278-0181 IJERTV10IS090209 Published by: www.ijert.org Vol. 10 Issue 09, September-2021</p> <p>4. Mathematical Modelling of Reactive Transport of Contaminants in Heterogeneous Flow Of Saturated and Unsaturated Media. International Journal of Engineering Research & Technology (IJERT) http://www.ijert.org ISSN: 2278-0181 IJERTV10IS090196, Published by : www.ijert.org Vol. 10 Issue 09, September-2021</p> <p>5. An Investigation of Fractional One-Dimensional Groundwater Recharge by Spreading Using an Efficient Analytical Technique. Fractal Fracti. 2022, 6, 249. https://doi.org/10.3390/fractalfract6050249.</p> <p>6. An efficient analytical approach with novel integral transform to study the two-Dimensional solute transport problem. Ain Shams Engineering Journal (ELSEVIER). 2022.</p> <p>7. “Analytical Solution of the One-Dimensional Solute Advection- Dispersion Equation with Spatially Variable Retardation Factor using a Change of Variable and Integral Transform Technique” in the International Journal of Engineering Research & Technology (IJERT) , ISSN 2278 -0181, Volume 3, Issue 19 May 2015.</p> <p>8. Chemically reactive non-Newtonian fluid flow through a vertical microchannel with activation energy impacts: a numerical investigation.. Advances in Mechanical Engineering 2024, Vol. 16(7) 1–17 The Author(s) 2024 DOI: 10.1177/16878132241261472 journals.sagepub.com/home/ade</p>
Patents	Point Diffusion function estimation through Bivariate Transformations method in self-adaptive optical imaging
Book/Book Chapters	nil

Research and Consultancy:nil