

Dr. K Madhukar

Life Member: Indian Mathematical Society (L/2020/138)

Life Member: Ramanujan Mathematical Society (1615)

Life Member: Indian Society of Theoretical and Applied Mechanics (L/1275)

Life Member: Applied and Natural Science Foundation (ANSF/LIFE/2020-51)

Individual Member: IUCEE (iuceeim48)

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[Madhukar K - Google Scholar](#)

EDUCATIONAL QUALIFICATION

PhD (Mathematics), CSIR4PI (Formerly CSIR CMMACS), Bangalore University, 2012

MPhil (Mathematics), Madurai Kamaraj University, DDE, 2006

MSc (Mathematics), Central College, Bangalore University, 2002

BSc (PCM), St. Joseph's College, Bangalore University, 2000

Additional Information:

PhD Thesis title: “The Dynamics and Rheology of Periodically Forced Particles in a Fluid at Low Reynolds Numbers.”

Cleared *Joint UGC-CSIR National Eligibility Test for lectureship (NET (LS))*, 2005.

Completed Diploma in Software Technology, (DST), 2006, ET&T Corporation Ltd.

Cleared two online certificate programs of 2 credits each, on NPTEL HRD, 2019

Conducted FDP for 2 sessions on Mathematics using Python at Bangalore University, Bangalore on 27-1-2021.

Conducted FDP of 4 days on introduction to Python and FOSS, BMSIT (22-7-2020 to 25 – 7 – 2020)

Day 1 <https://youtu.be/ey8FK6g2vSg> (Inauguration lecture: Dr GK Patra, CSIR4PI)

Day 2 <https://youtu.be/NRw7at7kHpk>

Day 3 <https://youtu.be/hdA6auuhKF0>

Day 4 <https://youtu.be/4QN8qzwZCUg>

Day 5 <https://youtu.be/dPzPI9xW5XY>

Conducted workshop on Scilab and Wxmaxima for UG students for two consecutive years 2017 and 2018 respectively at MSRCASC, Bangalore.

PROFESSIONAL EXPERIENCE

BMS College of Engineering, Basavanagudi, Bangalore - 560019

Assistant Professor

December 2022 – till date

AMC Engineering College, Bannerghatta Road, Bangalore – 560083

Associate Professor

January 2022 – Dec 2022

Bangalore Analytical Research Centre (P). Ltd. (BARCINDIA), Bangalore

Analyst

May, 2020 – Jan 2022

St. Joseph's College (Autonomous), Bangalore.

Assistant Professor, Department of Mathematics.

June, 2015 – February, 2020

Responsibilities:

- Teaching Mathematics at Under Graduate and Post Graduate levels.
- Researching on an in house seed money project titled - *Flow past a Porous Particle in a Fluid at Low Reynolds Numbers*, as **Principle Investigator**.
- Mentoring as class mentor for few classes. Guiding PG projects and UG term papers.

Subjects Taught (Theory):

Fluid Mechanics, Mathematical Methods, Numerical Methods, Differential Equation, Calculus, Algebra, Linear Algebra

Subjects Taught (Practicals):

Python, Scilab, Maxima – To solve mathematical problems and visualise the solutions for better understanding of the mathematics behind it.

MVJ College of Engineering, Bangalore Assistant Professor, Department of Mathematics.
Sept, 2012 – Sept 2014

Responsibilities:

- Teaching Mathematics at Under Graduate and Post Graduate levels.

Subjects Taught (Theory):

Engineering Mathematics, Numerical Methods, Differential Equation, Applied Mathematics

**CSIR Centre for Mathematical Modelling and Computer Simulation (CMMACS),
Currently CSIR4PI, Bangalore.**

Project Assistant

April, 2011 – Sept, 2012

Responsibilities:

- Working on the problems related to my PhD work.

Tumkur University, Tumkur

Assistant Professor, P G Centre, Department of Mathematics.

May, 2010 – April, 2011

Responsibilities:

- Teaching Mathematics at Post Graduate level

Subjects Taught (Theory):

Algebra, Linear Algebra, Mathematical Methods, Numerical Methods, Differential Equations

**CSIR Centre for Mathematical Modelling and Computer Simulation (CMMACS),
Currently CSIR4PI, Bangalore.**

Project Assistant: March, 2005 – Nov, 2007

JRF: Nov, 2007 – Nov, 2009

SRF: Nov, 2009 – May, 2010

Responsibilities: Working on the projects

1. *Site effects in Ahmedabad based on array observations of microtremors.*
2. *Inertial effects on forced particles in unsteady flows at Low Reynolds Numbers.*
3. *The Dynamics and Rheology of Periodically Forced Particles in a Newtonian Fluid at Low Reynolds numbers*

Sri Bhagwan Mahaveer Jain College, School of Graduate Studies, Bangalore.

Lecturer, Department of Mathematics.

June, 2004 – March, 2005

Responsibilities: Teaching Mathematics at Under Graduate level.**Subjects Taught (Theory):** Algebra, Linear Algebra, Laplace Transform, Fourier Transform**M S Ramaiah College for Arts, Science and Commerce, Bangalore.**

Lecturer, Department of Mathematics.

May, 2003 – June, 2004

Responsibilities: Teaching Mathematics at PU and Under Graduate level.**Subjects Taught (Theory):** Algebra, Linear Algebra, Differential Equations and PU Maths

St. Joseph's Pre – University College, Bangalore

Lecturer, Department of Mathematics August,
2002 – April, 2003

Responsibilities: Teaching Mathematics at PU level.

Subjects Taught (Theory): PU Mathematics

TECHNICAL SKILLS

Python, FORTRAN 77, MATLAB, Scilab, Maxima, Octave, C, Linux

PERSONAL INFORMATION

Father's Name: K Krishnamurthy

Mother's Name: Late K Y Sharadhamba

Permanent Address: #7, I A Cross, Abbaiah Reddy Layout, Kaggadasapura Extn, C V
Raman Nagar PO, Bangalore – 560093

Passport Number: Z4516085 (Date of Expiry 19/10/2027)