

Faculty Name: Dr M. Harikrushna

Faculty Photo:



Faculty Description:

Dr M. Harikrushna is an *Associate Professor of Mathematics* at **Dr K. V. Subba Reddy Institute of Technology, Kurnool**, with over 23 years of experience in teaching in higher education. He holds a *Ph.D. in Mathematics* from *Sri Krishnadevaraya University, Ananthapuramu*, with specialization in *Fluid Dynamics, Magnetohydrodynamics, Heat and Mass Transfer, and Nanofluid Flow Analysis*.

His teaching experience covers undergraduate and postgraduate engineering programs, where he delivers core mathematics courses with an emphasis on conceptual clarity, problem-solving, and practical application. He actively contributes to academic planning, curriculum implementation, and student mentoring in alignment with outcome-based education practices.

Dr Harikrushna has published research articles in reputed international journals indexed in *SCOPUS and ESCI*, including *CFD Letters, Journal of Nanofluids, Heat Transfer (Wiley), and Proceedings of the Institution of Mechanical Engineers*. His research work addresses advanced transport phenomena involving chemical reactions, thermal radiation effects, and non-Newtonian fluid models. He is also the author of the books “*Probability and Statistics*”, “*Statistical Methods for Deterministic and Stochastic Systems*” and “*Linear Algebra and Calculus*”.

In addition to classroom teaching, he is engaged in digital academic outreach through an educational *YouTube Channel and Academic Blog*, reaching a wide learner community. He regularly participates in faculty development programs, workshops, and professional training related to applied mathematics, computational methods, and quality assurance in higher education.

Profile Tab:**Qualification**

| Qualification | Institution | Year |
|-----------------------------|---|-------------|
| B. Sc. (M.P.C) | S. V. University, Andhra Pradesh | 1999 |
| M. Sc. (Mathematics) | S. V. University, Andhra Pradesh | 2002 |
| Ph. D. | S. K. University, Andhra Pradesh | 2024 |

Experience

| Designation | Institution | From | To |
|----------------------------|---|-------------|------------------|
| Associate Professor | DR KVSRIT, Kurnool | 2016 | Till Date |
| Lecture | Sri Vani Degree College, Anantapur | 2013 | 2016 |
| Lecture | RTD Degree College, Proddatur | 2006 | 2013 |
| Lecture | SVR P.G. Centre, Proddatur | 2002 | 2006 |

Responsibility Tab:**Responsibilities**

- » Teaching regular undergraduate and postgraduate mathematics courses.
- » Mentoring students for academic performance, career planning, and personal development.
- » Providing academic counselling to support learning outcomes and student well-being.
- » Guiding and supporting junior faculty in teaching practices and curriculum delivery.
- » Actively engaged in continuous research in applied mathematics and fluid dynamics.

Teaching Tab:**Expertise / List of subjects handled**

- ✓ Linear Algebra and Calculus
- ✓ Differential Equations and Vector Calculus
- ✓ Complex Variables and Numerical Methods
- ✓ Numerical Methods and Transform Techniques
- ✓ Probability and Complex Variables
- ✓ Numerical and Statistical Methods
- ✓ Probability and Statistics

Research Tab:

Research Interest:

- ❖ Fluid Dynamics
- ❖ Heat and Mass Transfer
- ❖ Porous Media
- ❖ Nano Fluids
- ❖ MHD

Publications Tab:

Research Publications & Book

1. Unsteady MHD Rotating Jeffreys Fluid Flow Embedded in a Porous Medium over an Infinite Perpendicular Plate, “**CFD Letters**” 17, Issue 4 (2025) 33-49 ISSN: 2180-1363. <https://doi.org/10.37934/cfdl.17.4.3349>
2. Chemical Reaction and Dufour Effects on MHD Flow of Cu-TiO₂ Nanofluids Past an Unbounded Vertical Porous Moving Plate, “**Journal of Nanofluids**” Vol. 13, pp. 258–267, 2024, doi:10.1166/jon.2024.2149.
3. Chemical reaction effects on MHD Convective flow past a vertical absorbent plate with ramped wall temperature and concentration, “**Heat Transfer**” (Wiley), 52 (6), pp. 3914-3935, 2023. (ESCI & SCOPUS). doi.org/10.1002/htj.22856
4. Combined effects of Chemical reaction and Radiation on MHD Squeezing flow of Casson fluid, “**International Journal of Advanced Research in Fluid Mechanics and Thermal Sciences**”, 9, 2023. (SCOPUS). doi.10.37934/arfmts.111.1.5879
5. Soret and Dofour effects on MHD free convective flow of Maxwell nanofluid past an infinite stretching sheet, “**Proceedings of Institute of Mechanical Engineers Part E: Journal of Process Mechanical Engineering**”, pp.1-7,2023. doi.10.1177/095440892-31172163.
6. **Book: Probability and Statistics**
Research India Publications, 2022 | ISBN: 978-93-92437-07-6
7. **Book: Statistical Methods for Deterministic and Stochastic Systems**
Bluepen International Publisher 2025 | ISBN: 978-93-6940-561-9
8. **Book: Linear Algebra and Calculus for Engineering**
Scientific International Publishing House, 2025 | ISBN: 978-93-7196-839-3

Professional Development & Workshops

- Online Certification Course on "Fundamentals of Quantum Computing" from 23/07/2025 to 29/07/2025, Organized by Aditya Learning Academy (ALA) in association with Department of Computer Science and Engineering, Aditya University, Surampalem-533 437, Kakinada District, A.P., with satisfactory attendance and a test score of 73.33%.
- One Week Online Workshop on Mathematics towards Machine Learning: Unveiling the Fundamentals held from August 26 to 31, 2024 Organised by Indian Mathematics Professors Association and Infinity Research & Development Institute, Coimbatore.
- Five-Day International Online FDP on Exploring Recent Trends in Applied Mathematics and Machine Learning held from 20th May 2024 to 24th May 2024 by Department of Mathematics at Koneru Lakshmaiah Educational Foundation (Deemed to be University), Bachupally Campus, Hyderabad.
- One Week Online Faculty Development Programme on "Mathematics and its Applications in Technology & Science" held from 05-06-2023 to 09-06-2023 organized by the Department of Mathematics, Madanapalle Institute of Technology & Science, Madanapalle.
- Two Week International FDP on "Research Perspectives in Mathematics and its Applications" organized by the Department of Mathematics, Sathyabama Institute of Science and Technology, Chennai, from July 4 to July 16, 2022.
- National Level One-Week FDP on Latex & Xfig held from 15th June 2020 to 19th June 2021 by Calcutta Institute of Technology, Banitala, West Bengal.
- One Week Online Faculty Development Program on NBA and NAAC Accreditation Process held from 4th June 2020 to 8th June 2020 by M S Ramaiah Institute of Technology, MSR Nagar, Bengaluru.
- Participated in One week Faculty Development Programme on "Outcome Based Education" Organized by E&ICT Academy, NIT Warangal at Sri Mittapalli College of Engineering, Tummapapalem, Guntur from 24th - 29th August, 2019.

Skills & Technical Proficiency

- ❖ **Software & Tools:** MS Office, C' Programming.
- ❖ **Languages:** Telugu, English, and Hindi.

Online Mathematics Education Initiatives

- ✿ **YouTube Channel:** www.youtube.com/c/magisetty
- ✿ **Blogger:** <https://magisettymaths.blogspot.com>