

# **Dr. K. Srihari**Assistant Professor of Mathematics



Education Qualifications: Doctor of Philosophy (Mathematics)

Specialization: Applied Mathematics

#### **ADDRESS:**

• A – Block -Room No 116

## JNTUH ID:

92150402-172204

## EMAIL:

ksrihari\_maths@mgit.ac.in

## DATE OF JOINING:

22-10-2003

## EXPERIENCE - 19 Years,6 months

• Teaching – 19 Years,6 months

## **SUMMARY:**

- Publications 31
- Conferences 3+10=13
- Patents 1
- Books -1
- Honors/Awards 2

#### **EVENTS:**

- Organized 1
- Attended 31

## LET'S MEET ON SOCIAL:

- https://www.facebook.com/mgithyderabad
- https://www.instagram.co m/mgithyderabad
- https://www.linkedin.com/ company/mgithyderabad
- https://twitter.com/MGIT hyderabad

## **Membership of Professional Bodies:**

- 1. Life member in the Indian National Science Congress Association, Member ship No: L34607, Sec: Math. Sci.
- 2. Member in International Association of Engineers (IAENG) Member ship No: 259278,2020.

# **Responsibilities Held at Institution Level:**

- 1. Member and Convener, Canteen committee MGIT.
- 2. SC/ST Cell Chairman (Students), MGIT.
- Discharged duties as Convener for Annual day Celebrations, Nirwana-2012.
- 4. Member, H.R. Team, MGIT in 2010.

## **Responsibilities Held at Department Level:**

- 1. Worked as a Programme coordinator in the birth day celebrations of Srinivasa Ramanujan, Dec-2011.
- 2. Worked as Convener for a National Conference on "Relevance of English, Mathematics and Management sciences to technical courses, April-2014, MGIT.

## **Research Guidance:**

1. Appointed as a Research supervisor by JNTU, Hyderabad in 2009.

## Honors/Awards Received:

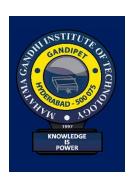
- Received a letter of appreciation as best teacher from Secretary, MGIT in 2008.
- 2. Received a letter of appreciation as best teacher from Principal, MGIT in 2005.

## **Courses Handled at Under Graduate / Post Graduate Level:**

- **UG:** Mathematics-I, Mathematics-II, Mathematics-III, Mathematical methods and Computer oriented statistical methods.
- **PG:** Computer oriented numerical methods.

## **Publications:**

- MHD free-convection flow of an incompressible viscous dissipative fluid in an infinite vertical oscillating plate with constant heat flux, Journal of Energy, Heat and Mass transfer, vol.28, pp.19-28.2006, ISSN No:0970-9991.
- 2. MHD Three-dimensional Couette flow through a porous medium with heat transfer and viscous dissipation, Journal of Indian Academy of Mathematics, vol.30, No.2, pp.371-388, 2008, ISSN No: 0970-
- 3. Soret effect on unsteady MHD free-convective mass transfer flow past an infinite vertical porous plate with oscillatory suction velocity and heat sink, International Journal of Applied Mathematical Analysis and Applications, vol.1, No.2, pp.239-259, 2006, ISSN No:0973-3868.



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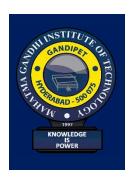
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- 4. MHD Three-dimensional free-connective flow with heat and mass transfer through a porous medium with periodic permeability, Journal of Institution of the Engineers (India), Mechanical Engineering division Board, vol.89, pp.23-30, 2008, ISSN No: 0020-3408.
- 5. Hall effect on MHD flow and heat transfer along a porous flat plate with mass transfer and source / sink Journal of Energy, Heat and Mass transfer, vol.30, pp.361-376, 2008, ISSN No: 0970-9991.
- 6. Numerical solution of unsteady flow of a radiating and chemically reacting fluid with time dependent suction, Indian Journal of Pure and Applied Physics, vol 47, pp-7-11, 2009,Impact factor 0.67, ISSN No:19-5596,(Scopus)
- 7. Finite element analysis of Hall current in the presence of radiation on MHD flow of a dissipative and chemically reacting fluid, Journal of Energy, Heat and Mass transfer, vol 34, No.2, pp 333-355, 2012, ISSN No:0970-9991.
- 8. Dufour effect on Three-dimensional heat and mass transfer flow through a porous medium International Journal of Mathematics trends and technology, vol. 47, No. 4, pp-268-274, 2017, ISSN No: 2231-5373.
- 9. MHD Three-dimensional Couette flow through a porous medium in the presence of thermal radiation Asian Journal of Mathematics & Computer research, vol .19(4), pp-158-175, 2017, ISSN No: 2395-4205.
- 10. Effect of radiation on Three-dimensional free-convection flow through a porous medium with chemical reaction, Global Journal of Mathematical Sciences: Theory and practical, vol. 9, No. 2, pp-169-188, 2017, ISSN No: 0974-3200.
- 11. Effect of thermal-diffusion in the presence of magnetic field on three-dimensional Porous flow, Journal of Applied Physical Science International, vol .9(1), pp-24-36, 2017, ISSN No:2395-5260.
- 12. Numerical study of Magneto-hydrodynamic three-dimensional Couette flow through a porous medium in the presence of heat source, International Journal of Engineering, Science and Mathematics, vol.7, issue 1, pp, 131-147, 2018, ISSN No:2320-0294.
- 13. Numerical study of MHD double diffusive rotating flow over a vertical porous plate in the presence of heat source/sink, International Journal of Mathematical Archive, vol .9(3), pp 1-12, 2018,ISSN No:2229 5046.
- 14. Effect of Magnetic Field in the Presence of Radiation on Steady Flow Over a Heated Stretching Surface: A Quassi Linearisation and Finite Difference Study International Journal of Mathematics trends and technology, vol. 56, Issue 8, 567-575, April-2018, ISSN No: 2231-5373.
- 15. Thermal diffusion and diffusion thermo effects on MHD flow of a chemically reacting fluid past a porous plate with time dependant transpiration velocity and Hall current, International Journal of Engineering, Science and Mathematics,vol.7, issue4,529-549, Apr-2018, ISSN No: 2320-0294.
- 16. Effects of Soret, Dufour and radiation on MHD flow of a dissipative fluid past a porous plate with chemical reaction heat source, Journal of Applied Physical Science International,vol,10(2):47-64,2018,ISSN No:2395-5260.
- 17. Soret, Dufour and Hall effects on unsteady MHD flow past a semi-infinite vertical plate by the presence of heat source Journal of International Academy of Physical Sciences, vol 22, No. 1, pp-25-50, 2018, ISSN No:0974-9373.
- 18. Analytical solution of unsteady stratified viscous fluid past a permeable bed, Journal of Applied Physical Science International, 10(2):pp.65-76, 2018, ISSN No: 2395-5260.



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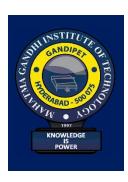
- 19. Flow of a visco-elastic fluid on porous oscillating plate Journal of Pure and Applied Physics, vol 22, No.2, pp-421-429,2008,ISSN No: 0974-8970
- 20. Combined Heat and Mass transfer in MHD Three-dimensional porous flow with periodic permeability and Heat absorption, International journal of Mechanical engineering & technology, vol 3, Issue.2, pp-573-593, 2012, ISSN No: 0976 6340 (Scopus).
- 21. Effects of radiation and Soret in the presence of heat source/sink on unsteady MHD flow of a chemical reacting fluid with viscous dissipation,

British Journal of Mathematics & Computer Science, ,vol 4 (17), pp-2536-2556, 2014,ISSN No:: 2231-0851.

- 22. Effects of Soret and Magnetic field on unsteady flow of a radiating and chemically reacting fluid: A Finite difference approach International Journal of Mechanical Engineering, vol 3, issue 3, pp-1-12, 2014.ISSN No: 2319-2240 (Naas Rated Journal).
- 23. Dufour effect on unsteady MHD free-convective flow of a dissipative fluid past a vertical porous plate, International e-Journal of Mathematics and Engineering, vol. 5, issue 4, pp-2478-2489,2014.ISSN No: 0976-1411
- 24. Effect of heat source on steady MHD flow and heat transfer over a heated stretching surface, International Journal of Mathematical sciences, technology and Humanities, vol 4, issue 4, pp-1355-1367, 2014,ISSN No: 2249-5460.
- 25. Combined effects of Hall current and Magnetic field on unsteady flow past a semi infinite vertical plate with thermal radiation and heat source, Physical Sciences International Journal, vol 7 (2),pp-73-89,2015,ISSN No:2348-0130 (Naas Rated Journal).
- 26. Effect of radiation on unsteady MHD flow of a chemically reacting fluid past a hot vertical porous plate: A Finite difference approach American chemical sciences Journal, vol 5(1), pp-50-69, 2015,ISSN No: 2249-0205,(Naas Rated Journal).
- 27. Effects of radiation and heat source on MHD flow of a chemically reacting fluid past a hot vertical porous plate, International journal of modern science and Engineering technology, ,vol 3, issue 2, pp-25-33,2016.ISSN No: 2439-3755.
- 28. MHD boundary layer flow over a heated stretching surface with thermal radiation: A Finite difference approach, International journal of modern science and Engineering technology, vol 3, issue 4, pp-8-14, 2016. ISSN No: 2439-3755.
- 29. Unsteady MHD flow past a semi-infinite vertical plate with heat source/sink: A finite difference approach,Int, Journal of Engineering Research and Application, vol. 6, Issue 11, (Part -3), pp.73-79, November 2016,ISSN No: 2248-9622.
- 30. Hydro magnetic flow over a heated stretching surface Journal of Applied Physical Science International,vol 11(1): 22-29, March,2019,ISSN No:2395-5260.
- 31. FDM and FEM correlative approach on unsteady heat and mass transfer flow through a porous medium, Journal of Xidian University, Volume 14, Issue 4, page No 2144-2153, April, 2020, ISSN No:1001-2400.

## **Conferences (Proceedings):**

- 1. Published a paper entitled "Effect of heat source on Hydro-magnetic three-dimensional flow through a porous medium" International Conference on Mathematical sciences (Proceedings), Department of Mathematics, Venkateswara university, Thirupathi, 2015.
- 2. Published a paper entitled "Effect of heat source/sink on MHD flow through porous medium past an exponentially accelerated inclined plate: A finite difference analysis, Conference Proceedings, Page No;18-28, 27



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- &28, June-2020, e-ISSN No:2582-4376. 1st, International Conference on Advances in Science Hub (Online) (ICASH 2020) RSP Science Hub.
- 3. Published a paper entitled "Unsteady fluid flow from a radiative surface with chemical reaction and time dependent suction under the effects of Soret" Proceedings of National Conference on Advances in Mechanical Engineering& Renewable Energy, Page No;254-262, March-2013 CBIT, Hyderabad.

## **Conferences (Paper presentations):**

- 1. Unsteady MHD flow and heat transfer of a viscous incompressible fluid between two parallel plates, National Seminar on Fluid Mechanics- its Applications to science and technology, held at Dept of Mathematics, O.U, Hyderabad in 2005.
- 2. Numerical solution of unsteady flow of a radiating and chemically reacting fluid with time dependent suction, National Conference on Mathematics and its applications to Engineering, held at Department of Mathematics, Vasavi College of Engineering, Hyderabad in 2008.
- 3. Soret effect on unsteady MHD free-convective mass transfer flow past an infinite vertical porous plate with oscillatory suction velocity and heat sink, National seminar on Numerical Techniques, held at Dept of Mathematics, university College of Engineering, O.U, Hyderabad in 2008.
- 4. Hall effect on MHD flow and heat transfer, National Conference on New Thresholds in Pure & Applied Mathematics, held at SNIST, Hyderabad in 2009.
- 5. Numerical solution of MHD three-dimensional heat & mass transfer flow, National Conference on Mathematical applications in Engineering, held at Vasavi College of Engineering, Hyderabad 2013.
- 6. A Numerical study on Effect of magnetic field and thermal diffusion in the presence of heat source/sink on unsteady flow of a radiating and chemically reacting fluid, National Conference on Recent trends in Applications of Mathematics, held at School of Engineering, Anurag Group of Institutions, Hyderabad in 2013.
- 7. Unsteady flow of a conducting stratified fluid over a permeable bed, Relevance of English, Mathematics&Management Sciences to Technical courses, held at MGIT, Hyderabad in 2014.
- 8. Effect of heat source on MHD three-dimensional Couttee flow through a porous medium, National Conference on Engineering Meterials, Energy and Environment, held at Department of Physics, CBIT, Hyderabad in 2015.
- 9. MHD three-dimensional Couette flow through a porous medium with thermal radiation, National Conference on Recent Advances in Fluid mechanics, held at Department of Mathematics, Osmania university, Hyderabad in 2016.
- 10. Effect of thermal diffusion in the presence of Magnetic field on three-dimensional flow through a porous medium, held at Department of Mathematics, Physics and Chemistry, Osmania university, Hyderabad in 2017.

## **Patents:**

1. Patent on "Dynamic Fluid Flow Governing Equations in the Functionality Modelling of Binary Alloys" was published on 24/12/2021, No: 202141055879 A

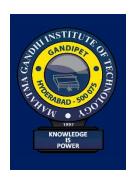
# Research & Consultancy: --

## No. of Books/Chapter Published with details:

1. Numerical study of hydro-magnetic flows through a porous medium, Lap Lambert Academic Publishing (International), ISBN: 978-3-659-84848-3, pp.1-97, 2016.

# **Events Organized:**

Conferences: ---



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- https://twitter.com/MGIT hyderabad

## FDPs/STTPs:

1. International one week online FDP on 'Role of Machine learning & Data sciences in AI' MGIT, Hyderabad, from 28.6.2020 to 2.7.2020, (One week)

Refresher Courses/ Workshops/ Webinars/ Seminars/ Guest Lecture: ----

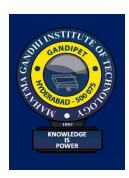
#### **Events Attended**

# FDPs/STTPs:

- 1. A Seven day online Short Term Training Programme on Development of Research Proposals and Funding opportunities from 3rd to 9th, June, 2020, Tirumala Engineering college, Narsarao pet, Guntur.
- 2. One Week Online Faculty Development Programme on "Taxonomy of Software's related to Mathematical Sciences" from 9th -14<sup>th</sup>, June 2020, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, Telangana.
- 3. Two day online FDP on Effective Technical report writing using Latex, 8 9th, June,2020, Mahatma Gandhi Institute of Technology, Hyderabad
- 4. Attended one week FDP (TEQIP-II) at CBIT, Hyderabad from 5th-10th, May-2014,CBIT, Hyderabad.
- 5. Participated in one week 'ISTE FDP' at MGIT from 30th, July -3 rd., August 2012.
- 6. Attended one week Faculty training programme from 20th, June to 30, June 2005 at MGIT, Hyderabad.
- 7. Attended FDP on 5th, Feb-2011 at GNITS, Hyderabad.
- 8. Participated in the FDP at MGIT (AICTE),22nd, Apr to 4th May 2013, MGIT.
- 9. Attended FDP at VJIT, Hyderabad from 4th to 5th, 2012.
- 10. Attended one week FDP, held at MGIT, from  $2^{nd}$  to 7th July-2018 in Association with NIT Warangal.
- 11. Attended UGC (Paramarsh) Online One Week Faculty Development Programme (FDP) on "E-Content Development from 31st, Aug to 5th, Sept2020, Shri Shivaji College, Parbhani.
- 12. One Week Faculty Development Programme (FDP) on Application of Mathematics in Research methodology & Emerging Technologies from 12th, to 16th, Oct 2020 at Hyderabad Institute of Technology and Management.
- 13. International Webinar/ FDP (5,Days) on "Relevance of Mathematics to Core Engineering Sciences" 12th to 16th October 2020 MGIT, Hyderabad
- 14. Five-Day Online International Faculty Development Programme on the Role of Applied Sciences in Industry & Engineering, from 2nd to 6th August 2020, University college of Engineering(A), Osmania university Hyderabad.
- 15. One Week Online FDP on "Engineering Physics and Materials Science", from 03-08-2020 to 07-08-2020 at CBIT, Hyderabad.

## Refresher Courses/ Workshops/ Webinars/ Seminars/Guest Lecture:

- International virtual conference on High-Performance Materials for Energy, Environment & Healthcare in the Digital Era"30th June & 1st July 2020, Centre for Materials Technology, School of Advanced Sciences, VIT, Vellore.
- 2. Online Workshop on Social Responsibility and Community Engagement, 17th, June 2020, CBIT, Hyderabad.



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- 3. National Workshop on Relevance of Vedic Mathematics to Real World Computing 24th, September 2019, Departments of M&H, CSE & IT, MGIT.
- 4. National Seminar on 'IoT' for Real world, from 28th to Oct,2019, Departments of M&H, CSE, IT and MCA of CBIT & MGIT.
- 5. Attended Conference on 7th April 2005 at CBIT, Hyderabad
- 6. Participated in National Work Shop (UGC, DSA-Phase-I) at O.U, Hyderabad, from 8th-10th, Dec, 2014.
- 7. Participated in National Work Shop on Advanced techniques in CFD at O.U, Hyderabad,25th, Feb-2012 O.U, Hyderabad (UGC-SAP-DRS).
- 8. Attended International conference on computational methods in Engineering and Sciences 8th-10th Jan-2009, CBIT, Hyderabad.
- 9. Attended UGC Orientation Course (4- weeks) at Academic Staff College, O.U, Hyderabad, from 06.06.2007 to 04.07.2007.
- 10. Attended UGC Refresher Course (ID) (3- weeks) at Academic Staff College, O.U, Hyderabad from 04.06.2014 to 25.06.2014.
- 11. Attended UGC short term course (1- week) at UGC,HRDC and RCCB,JNTU, Hyderabad from 18.09.2017 to 23.09.2017.
- 12. Attended Webinar on 'Fluid dynamics and its applications' from 28 and 29,May 2020, Government First Grade College Vijayanagara, Bangalore, Karnataka, India.
- 13. Attended Webinar on Creative writing of Research proposals & Articles on 4/6/2020, Adikavi Nannaya University, Rajamahendravaram.
- 14. Attended Webinar on Basic Author Work shop Research Article Writing & Reference Management using Mendeley, on 22, June,2020,Faculty of Science, Annamalai University (ELSEVIER).
- **15.** Two day National Webinar on Mathematics and its applications. From 19th to 20th' May, 2020, University college of Engineering, O.U, Hyderabad.
- 16. International online webinar on "Art of online teaching, Research paper writing & patent registration,18-20th, May,2020 SSBES Institute of Technology and Management, Nanded.

## **Online Certifications:**

- 1. "Positive Psychology" April-May 2020, Six, weeks, offered by University of North Carolina at Chapel Hill, University of North Carolina.
- 2. Introduction to Calculus May-June,2020, Five-weeks, offered by the University of Sydney University of Sydney
- 3. Differential Equations for Engineers, September-2020, six ,weeks, offered by Hong Kong University of Science and Technology, Hong Kong University
- 4. Vector Calculus for Engineers July-2020, five weeks, offered by Hong Kong University of Science and Technology, Hong Kong University.

## **Any Other Contribution:**

- BOS Member in the Department of Mathematics, Anwarul Uloom College, Hyderabad in 2015
- 2. **BOS Member** in the Department of Mathematics, MRCET, Hyderabad from 2019-2020