

AKAVARAM VENKATA LAKSHMI

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Academics:

- **Ph. D**, in Applied Mathematics, Department of Mathematics and Statistics, University of Hyderabad India (2004)
- **M. Phil** in Applied Mathematics, University of Hyderabad, Hyderabad, India (1998) with 76.5% (**1st class with Distinction**)
- **PGDCS** at University of Hyderabad during 2001-2002 (Distance Education).
- **M. Sc** in Applied Mathematics, National Institute of Technology, Warangal, India 1993-95 with 72.4% (**1st class**).
- **B.A** in Mathematics, Applied Mathematics and Statistics, Osmania University, Hyderabad during 1990-93 with 70.67% (**1st class with Distinction**).

Academic Achievements:

- **Qualified CSIR (JRF/SRF) (1999-2004).**
- **GATE score - 90% (1998).**
- **Qualified NBHM Post Doctor Fellow (PDF) (2004)**

M.Phil and Ph.D Details:

M.Phil: Worked in the area of in flows at Low Reynold's number and submitted dissertation entitled "**Flow Past Double bodies**" during 1997-1998.

Ph.D: Worked in flows at Low Reynold's number and submitted thesis entitled "**General solutions of Stokes, Brinkman and Oseen Equations**" during 1998 – 2004 carried under CSIR fellowship.

Industry Experience:

- Worked in Consecro Data Services India Private limited since March 2005 to May 2007.

Teaching Experience:

- Professor in Mathematics, Osmania University from May 2022 to till date
- Associate professor in Mathematics, Osmania University from May 2019 to May 2022.
- Assistance Professor in Mathematics, Osmania University from May 2007 to May 2019.

Contribution to Teaching/Academic Environment

- **In-charge Head of the Department** in Koti Women College, Department of Mathematics from March 2008 to July 2009.
- Member of the **College Development Committee** at OUCW Koti from March 2008 to July 2009.
- Member of **BOS** at OUCW Koti
- Member of **Departmental (Science College) committee** from Dec 2008 to June 2011.
- **In-charg Head of the Department of Mathematics**, in PG college Secundrabad from July 2011 to Jan 2014
- In-charge of **department of Computer Science** (UG) in PG college Secundrabad from July 2011 to June 2012
- Member in following college committees at PG College Secudarabad from July 2011 to Jan 2014.
 - Mess committee
 - Sports committee
 - Purchase committee
 - Library committee
- Appointed as **Additional Chief Warden** for all Hostels and Messes from Feb-2012 to June 2014 in Osmania University.

Research Areas:

Theoretical and Computational Fluid Dynamics.

Ph. D Scholars:

Awarded: 6

Ongoing: 4

RESEARCH PAPERS PUBLISHED:

- 1). G. ChandraShekhar, **A. VenkataLaxmi**, Ganesh Venkataraman, On the condition for wave number in the stability of hydromagnetic swirling-flows, American Institute of Physics Conference Series, Proceedings, Volume 2707, Issue 1, id.030001, 8 pp, May 2023, DOI: 10.1063/5.0143050
- 2). G. CHANDRASHEKHAR, **A. VENKATALAXMI**, ON THE IMPROVED INSTABILITY REGION FOR THE CIRCULAR RAYLEIGH PROBLEM OF

- 3). G. ChandraShekhar, **A. VenkataLaxmi**, Note on the Circular Rayleigh Problem, Springer International Publishing, Nonlinear Dynamics and Applications: Proceedings of the ICNDA 2022, Pages 367-376, October 2022.

- 4). Alfunsu Prathiba, **A. Venkata Lakshimi**, Impact of convection on three dimensional Casson rotatory fluid over an extending sheet: A numerical approach, November 2022, *Ethiopian Journal of Science and Technology* 15(3):325-340, DOI:[10.4314/ejst.v15i3.7](https://doi.org/10.4314/ejst.v15i3.7)

- 5). Alfunsu Prathiba, **A. Venkata Lakshimi**, Influence of Radiation and Convection on 3D-Casson Hybrid Nanofluid Flow in the Presence of Suction Over a Rotary Sheet, November 2022 *Communications in Mathematics and Applications* 13(3):1143-1167 DOI:[10.26713/cma.v13i3.1878](https://doi.org/10.26713/cma.v13i3.1878)

- 6). **Akavaram Venkata Lakshmi**: Unsteady Stokes Flow past a Shear Free Sphere, "*Communications in Mathematics and Applications*" (CMA), eISSN 0975-8607; pISSN 0976-5905, Vol. 13, No. 2, pp. 1-5 2022 (**Web of Science**)

- 7). Alfunsu Prathiba, **A. Venkata Lakshimi**, Exploration of the Internal Energy Effect on 3D-Casson Fluid Embedded by Porous Media over A Rotating Sheet, ***EJ-MATH, European Journal of Mathematics and Statistics***, ISSN: 2736-5484, Vol 3, Issue 3, Published on 5th May 2022, <http://dx.doi.org/10.24018/ejmath.2022.3.3.111> (Peer reviewed)

- 8). Mohammed Younus, **Akavaram Venkata Lakshmi**: Numerical investigation of activation energy of radiative magnetohydrodynamic Williamson nanofluid flow, ***Heat Transfer***, Accepted on 1st May 2022, ISSN: 2688-4534 eISSN:2688-4542 <https://doi.org/10.1002/htj.22588> (**Scopus and Web of Science**)

- 9). Bhukya Ravi, **A. Venkata Lakshmi**, and Yogesh J. Bagul: A SOLUTION TO AN OPEN PROBLEM ON REVERSE TRIGONOMETRIC MASJED-JAMEI INEQUALITY, ***JOURNAL OF THE CHUNGCHONG MATHEMATICAL SOCIETY***, 1226-3524 (pISSN)/2383-6245 (eISSN) Volume 35, Feb 2022 (**UGC- Care \List**)

- 10). **Prathiba Alfunsu, Venkata Lakshmi Akavaram**, Numerical investigation of a convective hybrid nanofluids around a rotating sheet, ***Heat Transfer***, First published: 22 January 2022 <https://doi.org/10.1002/htj.22454>, ISSN: 2688-4534 eISSN:2688-4542 (**Scopus and Web of Science**)

- 11). **A.Venkata Lakshmi**, A SOLUTION TO QI'S EIGHTH OPEN PROBLEM ON COMPLETE MONOTONICITY, *Probl. Anal. Issues Anal. (PROBLEMY ANALIZA-ISSUES OF ANALYSIS)* - July 2021, Vol. 10 (28), No 3, 2021, pp. 108–112, ISSN 2306-3424, eISSN 2306-3432 (**Scopus and Web of Science**)
- 12). **Prathiba Alfunsu, A. Venkata Lakshmi**. Viscous Dissipation and Suction characteristics of Heat and Mass Transfer past a Stretching Sheet. *Turkish Journal\\ of Computer and Mathematics Education*, Vol.12 No.1S (2021), 623-630, <https://doi.org/10.17762/turcomat.v12i1S.1948>, e-ISSN 1309-4653 - April 2021(**Scopus**)
- 13). Ravi Bhukya and **A. Venkata Lakshmi**, Completely monotonicity of class functions involving the polygamma and related functions, *Asian-European Journal of Mathematics*, Vol. 14, No. 04, 2150064 (July 2020), ISSN- 1793-5571, eISSN: 1793-7183.(**Scopus and Web of Science**)
- 14). Ravi Bhukya and **A. Venkata Lakshmi**, Monotonicity and inequalities related to gamma function, *BULLETIN OF THE INTERNATIONAL MATHEMATICAL VIRTUAL INSTITUTE*. Vol. 9(2019), ISSN (p) 2303-4874, ISSN (o) 2303-4955, 169-175. (**UGC- Care List**)
- 15). T. Gangaiah, N. Saidulu and **A. Venkata Lakshmi**, The Influence of Thermal Radiation on Mixed Convection MHD Flow of a Casson Nanofluid over an Exponentially Stretching Sheet; *Int. J. Nanosci. Nanotechnol.*, Vol. 15, No. 2, June. 2019, pp. 83-98, ISSN: 1735-7004, E-ISSN: 2423-5911 (**Scopus**)
- 16). N. Saidulu, T. Gangaiah and **A. Venkata Lakshmi**, Impact of Thermal Radiation on MHD Flow of Tangent Hyperbolic Nanofluid Over a Nonlinear Stretching Sheet with Convective Boundary Condition, *Journal of Nanofluids*, Vol. 8, pp. 1–10, 2019
- 17). N. Saidulu, T. Gangaiah and **A. Venkata Lakshmi**, MHD Flow of Tangent Hyperbolic Nanofluid over an Inclined Sheet with Effects of Thermal Radiation and Heat Source/Sink, *Applications and Applied Mathematics: An International Journal*, 4, 54-68, ISSN: 1932- 9466, March 2019.
- 18). T. Gangaiah, N. Saidulu and **A. Venkata Lakshmi**, The Influence of Thermal Radiation on MHD Tangent Hyperbolic Fluid Flow with Zero Normal Flux of Nanoparticles over an Exponential Stretching Sheet, *Applications and Applied Mathematics: An International Journal*, 4, 16-30, March 2019, ISSN: 1932-9466.
- 19). N. Saidulu, T. Gangaiah and **A. Venkata Lakshmi**, RADIATION EFFECT ON MHD FLOW OF A TANGENT HYPERBOLIC NANOFLUID OVER AN INCLINED EXPONENTIALLY STRETCHING SHEET, *International Journal of Fluid Mechanics Research*, 46(3):277–293, 2019

- 20). Ravi Bhukya, **Venkatalakshmi Akavaram**, and Feng Qi, Some inequalities of the Turan type for confluent hypergeometric functions of the second kind, *Integral Transforms and Special Functions*, Stud. Univ. Babes,-Bolyai Math.64 (2019), no. 1, 63–70; available online at <https://doi.org/10.24193/subbmath>. 2019.1.06.
- 21). N. Saidulu, **A. Venkata Lakshmi** and T. Gangaiah, Thermal Radiation and Slip Effects on MHD Flow and Heat Transfer of Casson Nanofluid Over an Exponentially Stretching Sheet, *Journal of Nanofluids*, Vol. 7, pp. 1–10, 2018.
- 22). N. Saidulu, T. Gangaiah and **A. Venkata Lakshmi**, Inclined Magnetic Field and Viscous Dissipation Effects on Tangent Hyperbolic Nanofluid Flow with Zero Normal Flux of Nanoparticles at the Stretching Surface, *Eur. J. Adv. Eng. Technol.*,5(3), 142-150, 2018, ISSN: 2394 - 658X.
- 23). T. Gangaiah, N. Saidulu and **A. Venkata Lakshmi**, Magnetohydrodynamic Flow of Nanofluid Over an Exponentially Stretching Sheet in Presence of Viscous Dissipation and Chemical Reaction, *Journal of Nanofluids*, 7, 1-10, 2018.
- 24). T. Gangaiah, N. Saidulu and **A. Venkata Lakshmi**, The Effects of Thermal Radiation and Inclined Magnetic Force on Tangent Hyperbolic Fluid Flow with Zero Normal Flux of Nanoparticles at the Exponential Stretching Sheet, *Journal of Nanofluids*, Vol. 7, pp. 1–12, 2018.
- 25). Ravi Bhukya and **A. Venkata Lakshmi**, Some Inequalities for the Ratio of Confluent Hypergeometric Function of the Second Kind, *Electronic Journal of Mathematical Analysis and Applications*, 6(1), 316-321, ISSN: 2090-729X, 2018.
- 26). Ravi Bhukya and **A. Venkata Lakshmi**, Subadditive and completely monotonic properties of the tricom confluent hypergeometric functions, *International Journal of Advances in Mathematics*, 2018(5), 25-33, eISSN 2456-6098, 2018.
- 27). Feng Qi, Ravi Bhukya, and **Venkatalakshmi Akavaram**, Inequalities of the Grunbaum type for completely monotonic functions, *Advances and Applications in Mathematical Sciences* 17(3), 331-339, 2018.
- 28). Ravi Bhukya and **A. Venkata Lakshmi**, Some Inequalities for the Beta Function, *Bulletin of the International Mathematical Virtual Institute*, ISSN (p) 2303-4874, ISSN (o) 2303-4955, Vol 7, 403-406, 2017.
- 29). N. Saidulu and **A. Venkata Lakshmi**, Slip Effects on MHD Flow of Casson Fluid over an Exponentially Stretching Sheet in Presence of Thermal Radiation, Heat Source/Sink and Chemical Reaction, *Eur. J. Adv. Eng. Technol.*, 3(1), 47-55, 2016, ISSN: 2394 - 658X.

- 30). N. Saidulu and **A. Venkata Lakshmi**, Mhd Flow of Casson Fluid With Slip Effects over an Exponentially Porous Stretching Sheet in Presence of Thermal Radiation, Viscous Dissipation and Heat Source/Sink, *American Res. J. Math.*, SSN(online)- 2378-704X , Volume 2, 1-15, ,2016.
- 31). **A. Venkatalaxmi**, B.S.Padmavathi, T. Amaranath, “A General Solution of Oseen Equations”, *Fluid Dynamics Research*, Vol. 39, 2007, pp595-606
- 32). **A. Venkatalaxmi**, B.S. Padmavathi, T. Amaranath, “Complete General Solution of Stoke equations for Plane Boundaries”, *Mechanical Research Communications*, Vol.31(4), 2004, 466-475.
- 33). **A. Venkatalaxmi**, B.S. Padmavathi, T. Amaranath, “Complete General Solution of Stoke equations for Plane Boundaries”, *Mechanical Research Communications*, Vol.31(4), 2004, 466-475.
- 34). **A. Venkatalaxmi**, B.S. Padmavathi, T. Amaranath, “A General Solutions of Unsteady Stokes Equations”, *Fluid Dynamics Research*, Vol.35(3), 2004, 229-236
- 35). **A. Venkatalaxmi**, B.S. Padmavathi, T. Amaranath, “Unsteady Stokes Equations: Some Complete General Solutions” *Proc. Indian Acad. Sci. (Math. Sci)*, Vol.114(2), 2004, 203-213.

Orientation and Refresher Courses Attended

- **Orientation Program** Organized by Osmania University, from 12th June 2007 to 22nd June 2007
- **Orientation Course** Organized by Osmania University, from 25th June 2008 to 23rd July 2008.
- **Refresher Course** Organized by University of Hyderabad, from 2nd Sept 2010 to 22nd Sept 2010
- Participated in “**Advanced Instructional School in Mechanics**” Organized by Department of Mathematics and Statistics, University of Hyderabad from 5th Dec 2011 to 24th Dec 2011
- **Nonlinear dynamics of classical magnetic systems**, UCE, OU, from 23rd Nov 2017 to 22nd Dec 2017.

Papers presented and attended in several International and National Conferences / Workshops