Faculty Profile

Dr. S. SURESHKUMAR, M.Sc., M.Phil., Ph.D.,
Associate Professor, S&H

HIGHLIGHTS:

- Number of Journal Publications : 16
- H-Index : 7
- Project Funding Received : NA
- Patents Published : NA
- Patents Granted : NA

PROFESSIONAL LINKS:

- Scopus ID : 57210017089
- Scopus Link : https://www.scopus.com/authid/detail.uri?authorId=57210017089
- Google Scholar ID : https://scholar.google.com/citations?user=ldCXWlwAAAAJ&hl=en
- Anna University Faculty ID :
- AICTE Faculty ID : 3545371923
- Anna University Supervisor ID : 3370005
- LinkedIn : Sureshkumar Selvaraj

PROFESSIONAL BACKGROUND:

- Teaching Experience till date : 10 years 1 month
- Industrial Experience : NA

INTERNATIONAL EXPOSURE: NIL

PUBLICATION DETAILS:

1. P.Gokulavani, S.Sureshkumar, S.Muthukumar, M. Muthtamilselvan and Qasem M. Al-Mdallal, Optimizing thermal performance in a non-Darcy porous ventilated cavity with heated diagonal baffles of varied heights, *International Journal of Modern Physics C*, Accepted, doi.org/10.1142/S0129183125500081, 2024. **(SCI)**

2. P. Suriyakumar, **S. Sureshkumar**, and M. Muthtamilselvan, A Revised model on three-dimensional hydromagnetic convective flow of nanofluids over a nonlinearly inclined stretching sheet, *International Journal of Modern Physics B*, 38, 28, 2450383, 2024. **(SCI)**

3. P. Suriyakumar, **S. Sureshkumar**, Qasem M. Al-Mdallal, and N. Vishnu Ganesh, Dual Stratification on the Double Diffusive Magnetohydrodynamics Flow of Nanofluids with Dissipation Effects-Revised Buongiorno Model, *Journal of Nanofluids*, 8, 12, 2144-2156, 2023. **(Scopus)**

4. S. Muthukumar, **S. Sureshkumar**, Shreen El-Sapa, Ali J. Chamkha, Impacts of uniform and sinusoidal heating in a nanofluid saturated porous chamber influenced by the thermal radiation and the magnetic field, *Numerical Hear Transfer, Part-A: Applications*, Doi.org/10.1080/10407782.2022.2137072, 2022 (**SCI**)

5. Subramanian Muthukumar, **Selvaraj Sureshkumar***, Arthanari Malleswaran, Murugan Muthtamilselvan and Eswari Prem, Effects of uniform or non-uniform heating at bottom wall on MHD mixed convection in a porous cavity saturated by nanofluid, *International Journal of Nonlinear Sciences and Numerical Simulation*, Doi.org/10.1515/ijnsns-2017-0258. 2021. **(SCI)**

6. **S. Sureshkumar,** S. Muthukumar, and K. Balasundaram, Nanofluid MHD combined convection in a porous chamber with various thermal sources, *International Journal of Modern Physics C*, Doi.org/10.1142/S0129183121500583, 2021. **(SCI)**

7. **S. Sureshkumar,** S. Muthukumar, M. Muthtamilselvan, D.H. Doh, G.R. Cho, and Eswari Prem, MHD Convection of Nanofluid in Porous medium influenced by Slanted Lorentz Force, *The European Physical Journal Special Topics*,229, 331-346, 2020. **(SCI)**

8. S. Muthukumar, Eswari Prem and **S. Sureshkumar,** Mixed Convective Heat Transfer in a Rectangular Nanofluid Filled Cavity with Inclined Magnetic Field, *International Journal of Mechanical and Production Engineering Research and Development*, 9, 5(1179-1190), 2019. **(Scopus)**

9. S. Muthukumar, **S. Sureshkumar**, Ali J. Chamkha, M. Muthtamilselvan, and Eswari Prem: Combined MHD convection and thermal radiation of nanofluid in a lid-driven porous enclosure with irregular thermal source on vertical sidewalls, *Journal of Thermal Analysis and Calorimetry*, 138, 583-596, 2019. **(SCI)**

10. **S. Sureshkumar**, S. Muthukumar, D.H. Doh and Eswari Prem: Effects of magnetic field inclination on tilted square cavity filled with a nanofluid saturated porous medium, *International Journal of Ambient Energy*, Accepted and Published, Doi.org/10.1080/01430750.2018.1537935, 2018. **(Scopus)**

11. M. Muthtamilselvan, **S. Sureshkumar**: A tilted Lorentz force effect on porous media filled with nanofluid, *Journal of Theoretical and Applied Mechanics*, 48, 2(50-71), 2018. **(Scopus)**

12. M. Muthtamilselvan, **S. Sureshkumar**: Convective heat transfer in a porous enclosure saturated by nanofluid with different heat sources, *Nonlinear Engineering*, 7, 1(1-16), 2018. **(Scopus)**

13. M. Muthtamilselvan, **S. Sureshkumar** and D.H. Doh: Coupled free and forced convection heat transfer in a porous enclosure saturated by nanofluid with irregular temperature distributions on sidewalls, *International Journal of Chemical Reactor Engineering*, 15, 6(1-25), 2017. **(SCI)**

14. M. Muthtamilselvan and **S. Sureshkumar**: Convective heat transfer in a nanofluid-

saturated porous cavity with the effects of aspect ratios and thermal radiation, *Physics and Chemistry of Liquids*, 55, 5(617-636), 2017. **(SCI)**

15. M. Muthtamilselvan and **S. Sureshkumar**: Impact of aspect ratio on a nanofluid-saturated porous enclosure, *Mechanics and Industry*, 18, 501(1-17), 2017. **(SCI)**

16. **S. Sureshkumar** and M. Muthtamilselvan: A slanted porous enclosure filled with Cu-water nanofluid, *The European Physical Journal Plus*, 131, 95(1-19), 2016. **(SCI)**

AREA OF SPECIALIZATION:

- Computational Fluid Dynamics

Ph.Ds AWARDED WITH DETAILS : NIL

Ph.Ds GUIDING: 01

- **Full Time Scholars: 01**
- **Part Time Scholars : NA**

SPONSORED RESEARCH / FUNDING APPLIED / CONSULTANCY : NIL

PATENTS PUBLISHED/GRANTED : NIL

COURSES CERTIFIED:

- Certificate course on NITTTR

ACHIEVEMENTS AND AWARDS:

1. Recognized Research Supervisor under Anna University, Tamilnadu, India from 2018.

2. Awarded as Best faculty in the academic year 2019-2020 in Kongu Engineering College, Erode, Tamilnadu, India.

3. Selected as Junior Research Fellow (JRF) funded by Science and Engineering Research Board (DST-SERB), New Delhi, India.

4. Selected as Senior Research Fellow (SRF) funded by Science and Engineering Research Board (DST-SERB), New Delhi, India.

5. Eagerly participated and collected several prizes in the inter-college meet.

SPECIAL SESSIONS DELIVERED: NA

CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:

PRESENTATIONS:

1. Participated in DST-PURSE sponsored National Webinar on Research Advances in Applied Mathematics, Bharathiar University, Coimbatore, India, 2021.

2. Presented the paper entitled “Nanofluid MHD combined convection in a porous enclosure with various thermal sources” in the 2nd International Conference on Mathematical Modeling and Computational Methods in

Science and Engineering (ICMMCMSE-2020), Alagappa University, Tamilnadu, India.

3. Presented the paper entitled "Mixed convective heat transfer of nanofluid in a rectangular porous cavity with the effect of inclined magnetic field" in the International Conference on Mathematical Modeling, Analysis and Computing (MMAC-2018), Thiruvalluvar University, Vellore, India.

4. Presented the paper entitled "Mixed convection in a nanofluid-saturated porous cavity with different inclination angles" in the 61st Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM-2016), VIT University, Vellore, India.

5. Presented the paper entitled "Boundary layer flow past a stretching sheet in a porous medium filled with water based nanofluids in the presence of heat generation/absorption with viscous dissipation effect: Keller Box Method" in the International Conference on Advances in Scientific Computing held in the Department of Mathematics, IIT Madras, Chennai, India, 2016.

6. Participated in the course conducted by Global Initiative of Academic Networks (GIAN) entitled "Finite Elements in Fluids", IIT Madras, Chennai, India, 2016.

7. Participated in the symposium entitled "Computational Science Symposium (CSS-2016)" held in the Department of Computational and Data Sciences, IISc, Bangalore, India.

8. Participated in the workshop entitled "Computational Techniques in Engineering" conducted by the School of Mechanical Engineering, VIT University, Vellore, India, 2016.

9. Presented the paper entitled "Combined convection in a nanofluid filled enclosure with a localized heat source in the presence of internal heat generation" in the National Conference on Recent Developments in Mathematical Analysis and Its Application (RDMAA-2016) held in Department of Mathematics, Pondicherry University, Puducherry, India.

10. Participated in "National Conference on Advances in Applied Mathematics (NCAAM-2015)" held in the Department of Applied Mathematics, Bharathiar University, Coimbatore, India.

11. Participated in the workshop entitled "Science Academies Lecture Workshop on Fluid Dynamics and Its Applications" held in the Department of Mathematics, P.S.G.R Krishnammal College for Women, Coimbatore, India, 2014.

12. Participated in "International Conference on Mathematical modeling and Scientific Computation (ICMMSC-2012)" held in the Department of Mathematics, Gandhigram rural institute - Deemed University, Gandhigram, Tamilnadu, India.

13. Participated in "International Workshop on Mathematical and Computational Fluid Dynamics (IWOMACFD-2010)" held in the Department of Mathematics, Sathyabama University, Chennai, Tamilnadu, India

WEBINAR'S :

FACULTY DEVELOPMENT PROGRAM'S (FDP):

1. Participated in the FDP on "Recent Trends in Computing 4.0" by Department of Computer Engineering, Vishwakarma Institute of Technology, Pune, from 08.07.2024 to 13.07.2024
2. Participated in the FDP on "Recent Advancement in Mathematics and Statistics" by Department of Mathematics, Coimbatore Institute of Technology, Coimbatore, from 12.02.2024 to 17.02.2024

PROFESSIONAL MEMBERSHIPS: ISTE

OTHER DETAILS (If any):

As a reviewer:

1. Numerical Heat Transfer Part-A: Applications