

PROFILE

Name	Dr. Suma S P
Position & Affiliation	Professor & Head of the Department, Mathematics
Areas of Interest	Diffferential equations
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Educational Qualifications:

Ph.D	Bangalore University	India	2002
M.Phil	Bangalore University	India	1994
M. Sc	Bangalore University	India	1993

Areas of Research:

Fluid Mechanics, Heat and mass Transfer

Brief Profile:

Academic professional with a master's degree, MSc and PhD in Mathematics. I have 28 years of teaching experience and over 20 years of research Experience. The areas of interest are Fluid Mechanics and Heat & Mass transfer. Guided 5 research students under VTU and 1 M.Phil. student.

Served as a BOS and BOE member, Doctral committee member for VTU and for many Engineering colleges.

Associated with CiTech from January 2014 onwards.

Awards/Achievements/Others:

- “President of India Cash Prize” for the best paper presentation at 42nd Indian Society of Theoretical and Applied Mechanics Conference, South Gujrat University, Surat during December 1997.
- Recipient of “International Women’s day -2020” award in recognition of exemplary achievements and contribution to the humankind.

Courses Taught:

Engineering Mathematics -I, Engineering Mathematics -II, Engineering Mathematics -III Engineering Mathematics -IV, Biostatistics and Biomodelling, Advanced Engineering Mathematics-I, Advanced Engineering Mathematics-II

Publications/Patents:

Publications

“Solute transport exponentially varies with time τ in an unsaturated zone using finite element and finite difference method”, International Journal of Modern Physics B, Vol 37, Issue 9,2023

“Double-diffusive penetrative convection in a fluid overlying a porous layer”, International Journal of thermo fluid science and technology, Vol 9, Issue 1,2022.

“Linear and Nonlinear Gravity field variation on double -Diffusive Convection in porous layer” Advances in Mechanical Engg. Pp 499-507, Springer Book chapter, 2021

“Mathematical Analysis of Transport of Contaminants Through Unsaturated Porous Media in Applied Soil Column Experiments” International Journal of Engineering Research & Technology, Vol 10, Issue 9,2021

“Mathematical Analysis of Transport of Contaminants Through Unsaturated Porous Media in Applied Soil Column Experiments”, International Journal of Engineering Research & Technology, Vol 10, Issue 9,2021

“Characteristic Study of Coriolis Force on Free Convection in a Finite Geometry with Isotropic and Anisotropic Porous Media” , Advances in Fluid Dynamics, Lecture Notes in Mechanical Engineering

“Characteristic Study of combined effects of Dufour and Coriolis Force on Free convection in a Rectangular Cavity with isotropic and Anisotropic Porous media” International journal of Scientific research in Computer Science, Engineering and information technology, Vol 4, issue 9, 2019.

“Penetrative Bénard-Marangoni convection in a micropolar ferrofluid layer via internal heating and submitted to a Robin thermal boundary conditions “, Journal of Electromagnetic Analysis and Applications (JEMAA), Vol.10, May 2018, pp 88-105.

“Effect of thermal boundary conditions on Bénard-Marangoni convection with temperature dependent viscosity and density”, International Journal of Engineering, Science and Mathematics (IJESM), Vol. 7(4), Apr 2018, pp 224-243

“A Comparison between Galerkin Weighted Residual and Perturbation Techniques for Penetrative Bénard–Marangoni ferroconvection via Internal Heating”, International Journal of Applied Engineering Research (IJAER), Vol.

13(6), Feb 2018, pp 4137-4145.

“Penetrative convection via internal heating in superposed fluid and anisotropic porous layers with through flow”, International Journal of Computer & Mathematical Sciences, ISSN 2347 – 8527 Volume 3, Issue 1 ,2014.

“Variable viscosity effects on penetrative convection in superposed fluid and porous layers” International Journal of Mathematical Archive, ISSN 2229 – 5046 , 34-46, 2014

“Variable Gravity Field and Throughflow Effects on Penetrative Convection in a Porous Layer” Int. Journal of Computers and Technology, Vol.5(3), pp. 172-191, 2013.

“Variable Viscosity Effects on Penetrative Convection in a Fluid” Int. Journal of Computers and Technology, Vol.5(3), pp. 51-65, 2013.

“Onset of Surface tension driven convection in a fluid layer with boundary slab of finite conductivity and deformable free surface” International Journal of Mathematical Archive - Vol.4(5), ISSN 2229-5046, 2013.

“Effect of internal heat generation on the onset of Marangoni convection in a fluid layer overlying a layer of an anisotropic porous medium” Transp. Porous Med., Vol.92, pp.727-743, 2012.

“Throughflow effects on penetrative convection in superposed fluid and porous layers” Transp. Porous Med., Vol.93, pp. 1107-1127, 2012.

“Effect of non-uniform basic temperature gradients on Marangoni convection with a boundary slab of finite conductivity” Int. Journal of Engg. Science and Technology, Vol.3, No.5, pp.4151-4160, 2011.

“Effect of throughflow and variable gravity field on thermal convection in a porous layer” Int. Journal of Engg. Science and Technology, Vol.3, No.10, pp.7658-7671, 2011.

“Exact analysis of effect of non-uniform temperature gradient on Marangoni convection with free slip condition” Mapana Journal of Sci. Vol.10, No.2, pp.1-10, 2011.

“Marangoni convection in a fluid layer overlying a layer of an anisotropic porous layer with deformable free surface” Int. Journal of Engg. Science and Technology, Vol.3, No.10, pp.7643-7657, 2011.

“Exact solution of Rayleigh-Benard convection in the presence of non-uniform temperature gradient with free slip condition” Indian stream research journals, Vol.1, No.4, pp.132-134, 2011.

Book/Book Chapters	<p>Engineering Mathematics-I, a text book for first semester Engineering course, VTU, 2017, S.CHAND Publishers, New Delhi</p> <p>Engineering Mathematics-III, a text book for first semester Engineering course, VTU, 2017, S.CHAND Publishers, New Delhi</p>