CURRICULUM VITAE

Dr. CHANDRASHEKARA G.
Assistant Professor
Department of Mathematics
BMS College of Engineering
Bull Temple Road, Bangalore-560 019

Residential Address :
#31, Hallevour (V), Marasur (P)
Anekal (T), Bangalore- 562 106
Email : chandrashekarg.4@gmail.com,
chandrashekarag.maths@bmsce.ac.in
Tel : 09538219032

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1. PERSONAL PROFILE:

Date of Birth	: 13th July 1981
Father's name	: Guruva Reddy K.
Mother's name	: Lakshmamma
Gender	: Male
Nationality	: Indian
Languages Known	: Kannada, English, Hindi, Telugu and Tamil.
Interests	: RESEARCH and TEACHING

2. EDUCATION:

- Ph.D., --- Bangalore University --- 2008-2012
  Title of Thesis: Elctrohydrodynamics Surface Instabilities
- M.Sc., --- Bangalore University --- 2006-2008---First Class
- B.Sc., --- Bangalore University --- 1999-2002---First Class

3. SUBJECT TAUGHT WITH SPECIALIZATION:

1. Engineering Mathematics- I and II
2. Engineering Mathematics- III and IV
3. Higher Mathematics- I and II
4. Linear Algebra
5. Discrete Mathematical Structures
6. Graph theory

4. AWARDS/ HONORS:

Received a "Best Mathematical Model" prize in the 3rd Graduate Modeling Camp, at Oxford University, Oxford, UK during March 31 2011.

5. VISITS ABROAD:

1. Oxford University, Oxford, UK during March 29 to April 1, 2011.
2. Cardiff University, Cardiff, UK, during April 4 to April 8, 2011.
3. Korean Institute of Science and Technology, Daejeon, Republic of Korea, during October 2010.

6. MEMBERSHIP FOR NATIONAL BODIES:

- ✓ Life member Indian Society for theoretical and applied mechanics [ISTAM].
- ✓ Applied for the life member Indian Mathematical Society [IMS].
- ✓ Life member International Association of Engineers (IAENG)

7. RESEARCH EXPERIENCE:

1. Senior Research Fellow, UGC-CAS in Fluid Mechanics, Department of Mathematics, Bangalore University, Bangalore - 560 001. Period: - 09/09/2010 – 09/08/2011. Under ISRO Respond research project is entitled "Electrohydrodynamics Surface instabilities under micro-gravity environment". [ISRO-338/2007-2008].
2. Junior Research Fellow, UGC-CAS in Fluid Mechanics, Department of Mathematics, Bangalore University, Bangalore - 560 001. Period: - 09/09/2008 – 08/09/2010. Under ISRO Respond research project is entitled "Electrohydrodynamics Surface instabilities under micro-gravity environment". [ISRO-338/2007-2008].

2. RESEARCH INTERESTS:

- **i.** Heat and Mass Transfer
- **ii.** Homotopy analysis method for fluid flows
- **iii.** Convective Instabilities and Surface instabilities
- **iv.** Lattice Boltzmann modeling of Fluid flows
- **v.** Spectral Methods for Fluid flow problems

3. WORK EXPIRENCE:

1. Worked as **costumer service executive** in **S L KIRLOSKER** for the period of 2yr 8 months during September 10, 2002 to July 10, 2005.
2. Working as **Assistant Professor**, in Department of Mathematics **BMS College of Engineering,** Bull Temple road, Bangalore-19, since 10th August 2011 to till date.

4. RESEARCH PUBLICATIONS:

1. Effect of Electric and Magnetic Fields on the Growth Rate of Kelvin-Helmholtz Instability in the Special Topics & Reviews in Porous Media, International Journal, Vol. 10, Issue: 02, pp: 143-154, January 2019.
2. Non-linear Time-Dependent Convection of Flow through Sparsely packed Porous Layer with Gravity Modulation, Journal of Emerging Technologies and Innovative Research (JETIR), Vol.6, Issue: 01, pp: 671-681, ISSN: 2349-5162, January 2019.
3. Chebyshev Spectral Collocation Solution of Non-Linear Time Dependent Partial Differential Equation with Time Derivative Boundary Conditions, International Journal of Mathematics and its Applications, Vol.7, Issue: 2, pp: 149–156, ISSN: 2347-1557, June 2019.
4. Combined effect of an Applied Magnetic field and Gravity modulation on the Time Dependent Hydro-magnetic Instability, submitted to Walailak Journal of Science and Technology (WJST), 2019.
5. Pseudo-Spectral Solution of Thermal Instability of Nano-Fluid Flow through a Channel, submitted to Journal of Applied Fluid Mechanics, 2019.
6. Pseudo-Spectral collocation solution of system of time dependent nonlinear differential equations, RJST, 2017.
7. Convective Heat Transfer Flow along a Sinusoidal Wavy Surface in a Porous Medium with Variable Permeability. Procedia Engineering 127 (2015), 524-531.
8. Onset of electrothermo-convection in a dielectric fluid saturated porous medium in a modulated electric field, Procedia Engineering 127 (2015), 838 – 845.
9. Electro-rheological Generalized Dispersion of Soluble Matter through a Poorly Conducting Fluid Saturated Porous Media, Caspian Journal of Applied Sciences Research 4(9), pp. 6-15, 2015.
10. Electrorheological Kelvin-Helmholtz instability at the interface between a nano structured porous layer and thin shell with poorly conducting couple stress fluid, Accepted for publication in *Fusion Science and Technology, Vol.60, No.1T, PP.56-63, July 2011*.
11. Electroroeological Rayleigh-Taylor instability at the interface between a porous layer and thin shell with poorly conducting couple stress fluid, *International Journal of Nonlinear Mechanics,* Vol. 46,pp. 57-64, 2011.
12. Effects of Couple Stress on the Growth Rate of Rayleigh-Taylor Instability at the Interface in a Finite Thickness Couple Stress Fluid, *Journal of Applied Fluid Mechanics,* Vol. 3, No.1, pp. 83-89, 2010.
13. Kelvin-Helmholtz Instability at an Interface between Couple Stress Fluid and Fluid Saturated Porous Layer of Large Extent, *International Journal of applied Mathematics,* Vol1,

Issue.1, pp. 67-78, *2010*.

14. Generalized Eigen Value Problem for the Study of Stability of Blood Flow through Artery with Variable Viscosity in the Presence of an Applied Magnetic, Proceedings of 62nd Congress of ISTAM, 2017.
15. The degradation and recovery of composite electrical insulators, *3rd UK Graduate Modelling* Camp held at Oxford University, Oxford, UK during March 29 to April 1, 2011

5. INTERNATIONAL AND NATIONAL CONFERENCE/ WORKSHOP ATTENDED:

1. Attended "*74th Annual Conference of Indian Mathematical Society"* held during December 27-30, 2008 at University of Allahabad, Allahabad. December 27-30, 2008, presented the paper entitled "Effect of couple stress on the control of growth rate of Rayleigh-Taylor instability in a finite thickness couple stress fluid layer".
2. Attended *"**International Conference on Frontiers in Fluid Mechanics**"* at UGC-CAS in Fluid Mechanics, Department of Mathematics, Bangalore University, Bangalore, during August 31-September 2, 2009 and presented the paper entitled "Electrorheological Rayleigh-Taylor instability at the interface between a porous layer and thin shell with poorly conducting couple stress fluid".
3. Attended **"*1st International Youth Conference on Fusion Energy*"** during 09 – 10 October, 2010 and 23rd IAEA Fusion Energy Conference, during 11 – 16 October, 2010, Daejeon, Republic of Korea, and presented the paper entitled "Electrorheological Kelvin-Helmholtz instability at the interface between a nanostructured porous layer and thin shell with poorly conducting couple stress fluid".
4. Attended "*The National Workshop on Recent Trends and applications of Fluid Mechanics",* organized by Department of Mathematics, Banaras Hindu University, Varanasi, during July 06-12, 2010.
5. Attended *"The National Workshop on Mathematical Model for Biofluid Flows and Applications"*, organized by Department of Mathematics, Sri Venkateswara University, Tirupathi, during January 22, 2010.
6. Attended National symposium on "Recent *Advances in Applied Mathematics*" Organized by Department of Mathematics, Gulbarga University, Gulbarga on February 8, 2010.
7. *3rd UK Graduate Modelling* Camp held at Oxford University, Oxford, UK during March 29 to April 1, 2011, and presented a paper titled "The degradation and recovery of composite electrical insulators"
8. *Attended 80th European Study Group* held at Cardiff University, Cardiff, UK, during April 4 to April 8, 2011.
9. Attended "The International Workshop on Mathematical Modelling and Computer

Simulation", organized by Department of Mathematics, Indian Institute of Technology, Madras, during January 3-12, 2011.

10. Attended TEQIP-II sponsored "one week workshop on MAT LAB and Simulation" held at BMSCE during 01-08-2012 to 07-08-2012.
11. Attended "*Faculty Orientation Programme*" held at BMSCE Bangalore during 23-1-2012 to 28-1- 2012.
12. Attended NEN FDP on "*Building Technology Ventures*" held at Dayananda Sagar College of Engineering, Bangalore during 08-08-2012 to10-08-2012.
13. Attended AICTE sponsored FDP on "*Linear Algebra and Applications*" held at National Institute of Technology, Calicut during 07.07.2013 to 13.07.2013.
14. Attended TEQIP-II Sponsored FDP on "*Biostatistics and Bio-modeling using Software*" held at BMSCE, BANGALORE during 22.07.2013 to 26.07.2013.
15. Attended TEQIP-II sponsored FDP on "*Latex and Excel for Research – Hands on sessions*" held at BMSCE, BANGALORE during 02.08.2013 to 07.08.2013.
16. Attended "*26th JMS International Conference*" during 02.08.2013 held at Acharya Institute of Graduate Studies, Bangalore and presented the paper entitled "*On the Laser driven Ritchmyer-Meshkov instability at the interface between poorly conducting fluids*"
17. Two week ISTE workshop on Fluid Mechanics BMS College of Engineering, Bengaluru, during 20-30 June 2014.
18. A TEQIP Sponsored Two week international workshop on Computational Fluid Dynamics, during 23rd June 2014 to 5th July at BMS college of Engineering.
19. A TEQIP Sponsored One week workshop on Linear Algebra and its application, during 16th-20th June at BMS College of Engineering.
20. Participated in workshop on Outcome based Education –Innovative Classroom Practices BMSIT, Bengaluru, during 18-19, September 2015.
21. Participated has delegate in ICTIEE workshop- 2015, BMS College of Engineering, Bengaluru, during 6-8, January, 2015.
22. Attended three days workshop on Advanced Computational Methods in Engineering and Science NIT Warangal during 1-3, April 2015
23. Attended one day workshop on Preparation of High Impact Research Articles and funding Research Proposals, ACS College of Engineering, Bangalore on 07-01-2016.
24. Participated in Wolfram Technology Conference -2016, at Hotel Marvella, on 18/01/2016.

25. Attended and present a paper entitled “Onset of electro-thermo-convection in a dielectric fluid saturated porous medium in a modulated electric field” in the ICHMT, 2015, at NIT Warangal.
26. Attended GIAN Workshop on Spectral methods for system of ODEs and PDEs, Held at Department of Mathematics NIT, Mizoram during June 20-29, 2016.
27. Attended TEQIP sponsored one week workshop on Advanced Mathematical modeling and computations, held at MSRIT, Bangalore
28. Attended GIAN Workshop on Hydrodynamic stability and Dynamo theory, Held at Department of Mathematics NIT Warangal during December 09-20, 2016.
29. Attended Four Days Summer School and Discussion meeting on “Buoyancy Driven Flows” held ICTS, TIFR, Bangalore during June 12-15, 2017.
30. Attended TEQIP Sponsored One week FDP on Advanced Numerical Techniques for Engineers and Researches, during 23rd-28th January, 2017 at BMS College of Engineering.
31. Attended COMSOL Day, on 6th June, 2017, held at Park Avnue, Marathahalli, Bengaluru.
32. Attended two days India Wolfram Technology Conference - 2017 scheduled on 4th & 5th May, at La-Marvella, Bengaluru.
33. Attended International conference on Fluid Dynamics and its Applications during July 12-14, 2017 held at BNMIT, Bangalore and presented a paper entitle “Spectral collocation solution of time dependent partial differential equation with time derivative boundary conditions”.
34. Attended National Conference on Recent Advances in Mathematics and its Applications (NCRAMIA-17) during 29-30, August, 2017 and presented the paper entitled “Pseudo-Spectral collocation of system of time dependent Partial differential equations”
35. Presented paper entitled “Generalized Eigen Value Problem for the Study of Stability of Blood Flow through Artery with Variable Viscosity in the Presence of an Applied Magnetic Field”, ISTAM conference 2017.
36. Attended 63th ISTAM conference, 2018 held at Dayananda Sagar University, Bengaluru during 20-23, December 2018 and presented a paper titled “ Effect of inclined magnetic and rotation on the Kelvin-Helmholtz instability at the interface between fluid and fluid saturated porous layer”.
37. Attended one week Training program on “Math Python” during 24-29 June 2019 held at Govt. Science College, Bangalore-1.
38. Attended one week Faculty Development Program on “Application of Computational Techniques in Engineering Using MATLAB”, held at QIP centre IIT Roorkee during 3-7 June 2019.

39. Attended Instructional School for teachers on Analysis of PDEs under National center for Mathematics held at Department of Mathematics, IISc, Bangalore during 6-18 May 2019.
40. Attended one day Python Workshop on June 22 2019 at BMS College of Engineering organized by ICT at IIT Bombay.

6. COURSES ATTENDED:

1. **MOOCS COURSE**: Modelling and Simulation using MATLAB: Five month duration from April 2014-August 2014, under IVERSITY.
2. Introduction to Numerical Grid generations and Flow computations, IISc, Bangalore during 27/01/2016- 15/06/2016.
3. NPTEL Course on Numerical Computing with MATLAB.
4. MOOCS Course on Introduction Differential equations, MIT, EDX.
5. Training Course on COMSOL MULTIPHYSICS Software, July 2017.
6. IIT BombayX FDP on ICT, August-September, 2017
7. IIT BombayX FDP on Blended MOOCS, September-October,2017

7. CONFERENCE/WORKSHOPS CONDUCTED

1. International Conference on Frontiers in Fluid Mechanics" at UGC-CAS in Fluid Mechanics, Department of Mathematics, Bangalore University, Bangalore, during August 31- September 2, 2009.
2. Organized a TEQIP Sponsored Two week international workshop on Computational Fluid Dynamics, during 23rd June 2014 to 5th July, 2014 at BMS college of Engineering.
3. Organized a TEQIP Sponsored One week workshop on Linear Algebra and its application, during 16th-20th June, 2014 at BMS College of Engineering.
4. Organized a TEQIP Sponsored One week FDP on Advanced Numerical Techniques for Engineers and Researches, during 23rd-28th January, 2017 at BMS College of Engineering.
5. GIAN MHRD sponsored ten days Course on "PSEUDO-SPECTRAL METHODS AND THEIR APPLICATIONS IN SOLVING SYSTEM OF DIFFERENTIAL EQUATIONS" during 15th -25th January 2018.

8. Invited Lectures Delivered:'

1. Delivered a lecture on "Being Scientific" at Sri Chaitanya International School during August 5, 2016.
2. Participated as Subject expert and delivered a lecture on "Mathematical Thinking" in One day workshop on TISP at BMSCE.
3. Delivered lecture on "Spectral Quasi-linearization method to solve nonlinear differential equation" in One week FDP on Advance Numerical Techniques for Engineers and Researchers, held during 23-28 January, 2017 at BMSCE.

4. Delivered a lecture on application of Psuedo-spectral methods for solving differential equation and conducted Hands on training on SCILAB at Dayanada College of management technology during 10th January 2018.
5. Conducted tutorials session in the ten days GIAN course on "Pseudo-Spectral Methods and Their Applications in Solving System of Differential Equations" during 15th -25th January 2018.

9. Special Achievement: Obtained GIAN MHRD Grant for the conduction of GIAN Course on "Pseudo-Spectral Methods and their Applications in Solving System of Differential Equations" and Host Prof. S.S. Motsa.

Place: BANGALORE
Date: 13-09-2019 **(CHANDRASHEKARA G)**