

CURRICULUM VITAE

1. Education Qualifications & Personal

Name: DR.VUSALA AMBETHKAR

Education Qualifications: M. Sc., Ph. D. (Applied Mathematics., Mathematics)

Present Affiliation: Dr.Vusala Ambethkar

Associate Professor,
Department of Mathematics,
Faculty of Mathematical Sciences,
University of Delhi,
Delhi-110007
India.
E-mail: vambethkar@maths.du.ac.in
vambethkar@gmail.com

2. Career Profile/ Positions held(Past and Present):

Organization/Institution	Designation	Period of service	Area (s)
Department of Mathematics, Faculty of Mathematical Sciences,University of Delhi, Delhi, India.	Associate Professor	9 th Feb. 2013 to present	Teaching & Research (Full Time)
Department of Mathematics, Faculty of Mathematical Sciences,University of Delhi, Delhi, India.	Reader	9 th Feb. 2010 to 8 th Feb. 2013	Teaching & Research (Full Time)
Department of Mathematics, Faculty of Mathematical Sciences,University of Delhi, Delhi, India.	Assistant professor (Sr.Scale)	9 th Feb. 2007 8 th Feb. 2010	Teaching & Research (Full Time)
Department of Mathematics, Faculty of Mathematical Sciences,University of Delhi, Delhi, India.	Assistant Professor	1 st Jan 2006 to 8 th Feb 07	Teaching & Research (Full Time)
Department of Mathematics, Faculty of Mathematical Sciences,University of Delhi, Delhi, India.	Lecturer	10 th Nov2004 to 31 st Dec 05	Teaching & Research (Full Time)
Department of Mathematics, University of Allahabad. Uttar Pradesh, India.	Lecturer	9 th Feb 2001 to 9 th Nov 2004	Teaching & Research (Full Time)

3. Teaching Experience: 14 years (Approx., Undergraduate, Post-Graduate and M.Phil. Ph.D)

Teaching Courses for undergraduate and post graduate level: Vector Calculus, Differential Equations, Dynamics, Mechanics, Numerical Methods, Geometry, Continuum Mechanics, Electro Dynamics, Fluid Mechanics,

Magnetohydrodynamics, Engg. Mathematics I & II, Fluid Dynamics-I&II, Differential equations, Mechanics, Computational fluid Dynamics

4. Area of Specialization of Research: Computational Fluid Dynamics, Fluid Mechanics, Heat and Mass Transfer, Free convection, Finite Difference Methods, and Finite Volume Methods.

5. Awards and Distinctions:

- (i) Joint UGC/CSIR Fellowship in the form of JRF and SRF to Carry out Research in Mathematics leading to a Ph.D degree at Osmania University, Hyderabad.
- (ii) Acharya Doctor Bavanari Award 2011.

6. Research Guidance: Ph.D & M.Phil

- (i) **Ph.D. Supervision:** 05 out of which **two** students jointly with me submitted thesis and **two** are submitting shortly and **one** working.
- (ii) **M. Phil. Supervision:** 05 out of which **one** awarded and **Four** are working.

7. Administrative /Professional Experience : (i) worked as a Member of various committees like DRC(Departmental Research committee), BRS (Board of Research studies), Faculty, DC(Departmental Council), Library, Internal Assessment exams, etc.

- (ii) Worked as convener for framing new courses and syllabi for Applied Mathematics stream for Semester system for M.A/M.Sc Mathematics.
- (iii) Chief paper setter and examiner of M.A/M.Sc Mathematics courses.

8. Research Profile:

(A) **Research Publications:** Total 23 Research Papers in different reviewed national and international Journals in the area of Computational Fluid Dynamics, Fluid Mechanics, Heat and Mass Transfer, Free convection, Finite difference methods, Finite volume methods.

(B) **Research Experience:** 14 years

(C) **Research Projects** (Minor Grants/Research Collaboration)

- (i) R & D Doctoral Research Programme (2008-2009), University of Delhi, Dean(R)/R & D/2008/103, dated June 24th 2008.
- (ii) R & D Doctoral Research Programme (2009-2010), University of Delhi, Dean(R)/R & D/2009/2487, dated 29th July 2009.
- (iii) R & D Doctoral Research Programme (2011-2012), University of Delhi, Dean(R)/R & D/2011/2423, dated 16th June 2011.
- (iv) R & D Doctoral Research Programme (2012-2013), University of Delhi, Dean(R)/R & D/2012/917, dated 3rd July 2012.

(v) R & D Doctoral Research Programme (2013-2014), University of Delhi, Dean(R)/R & D/2013-14/4155, dated 21st October 2013.

(vi) R & D Doctoral Research Programme (2014-2015), University of Delhi, Rc/2014/6820, dated 15th October 2014.

(D) Participation in Conferences, Seminars etc.:

- (i) Conference attended (National and International): 07.
- (ii) Workshops / Training Programmes attended: 04.

(E) Association with Professional Bodies:

Reviewing:

- (i) Indian Journal of Science and Technology, Chennai, India.
- (ii) National Academy of Mathematics, DDU Gorakhpur University, India.

Books being Reviewed:

- (i) Vector Analysis: To be published by Cambridge University Press

(F). Membership in Professional Bodies:

- (i) Life member of National Academy of Mathematics, DDU Gorakhpur University, India.

(G) . Papers in Indian Conference Proceedings:

Some numerical methods for solving Navier-Stokes equations , Proceedings of the one day national seminar on ALGEBRA (On 200th Birth Anniversary Celebrations of Evariste Galois), KBN College, Vijayawada, Andhra Pradesh, India, 2011, pp 42-46.

**(H). LIST OF PUBLICATIONS FROM YEAR 2008 ONWARDS TO TILL DATE OF THE APPLICANT
DR.V.AMBETHKAR**

1. V. Ambethkar, M. K. Srivastava, Numerical solutions of an unsteady 2-D incompressible Navier-Stokes equations at low Reynolds numbers with slip boundary conditions (Accepted and in press, Selcuk.J.Applied Maths,Turkey, 2013).
2. V. Ambethkar, M. K. Srivastava, Numerical study of an unsteady 2-D incompressible viscous flow with heat transfer at moderate Reynolds number with slip boundary conditions, Int.J. Applied maths, (Bulgaria) Vol.25, No.6, pp 883-908, 2012.
- 3.V. Ambethkar, Finite Volume Method for steady Viscous Incompressible Flow with Heat Transfer, Int.J.Applied.Maths,vol. 24, No 2, 2011.
4. V. Ambethkar and P. K. Singh, Effect of magnetic field on an oscillatory flow of a viscoelastic fluid with thermal radiation, Appl.Math.Sci, Vol. 5 , No.19,pp 935-946, 2011.
- 5.V. Ambethkar, A Numerical Study of Heat and Mass Transfer Effects on an Oscillatory Flow of a Viscoelastic Fluid with Thermal Relaxation, Adv.in.Theort& Appl. Mech, vol 3 , No.8, pp 397-407, 2010.

6. V. Ambethkar, Numerical Study of Heat and Mass Transfer in Magneto hydrodynamic Flow past a Vertical Plate with constant injection and heat flux, *Selcuk.J.Applied Maths*, Vol.11,No.2,pp 109-122,2010.
7. V.Ambethkar, Numerical solutions for Heat and Mass transfer effects of an unsteady MHD free convective flow past an infinite vertical plate with constant suction (injection) and heat source, *Int.J.Appl.Mech.& Engg* , vol 14 , No.1, pp 67-89,2009.
8. V. Ambethkar, Numerical Study of MHD Flow past a Circular Cylinder at High Reynolds Numbers, *Int.J. Heat and Technology*, Italy, Vol. 27, No. 1, 2009, pp. 113-118.
9. V.Ambethkar, Numerical Solutions of Heat and Mass Transfer Effects of an Unsteady MHD Free Convective Flow past an Infinite Vertical Plate with Constant Suction and Heat source or sink, *Int.J. Appl.Math.Mech*, Vol.5, No.3, pp 96-115, 2009.
10. V. Ambethkar and P. K. Singh, Numerical study of some aspects of MHD Flow past a vertical porous plate, *Journal of International Academy of Physical sciences*, Vol 12, pp 179-187, 2008.
11. V. Ambethkar, Numerical Solutions of Heat and Mass Transfer Effects of an Unsteady MHD Free Convective Flow past an Infinite Vertical Plate with Constant Suction, *J.Naval Arctecture and Marine Engineering*, Vol 5, No.1,pp 28-36, 2008.
12. V. Ambethkar, Numerical Solutions of an Impact of Natural Convection on MHD Flow past a Vertical Plate with suction or injection, *J.Korean.Soc. Industrial.applied. Maths*, Vol.12, No.4, P.201-222, 2008.
- 13.V. Ambethkar, Numerical solutions of magneto-hydrodynamic flow past a sphere at high Reynolds numbers, *Canadian.J.Physics*,Vol 86,No. 12,pp 1443-1447, 2008.
14. V.Ambethkar, M.K.Srivastava, Numerical solutions of an unsteady 2-D incompressible Navier-Stokes equation with heat transfer at moderate and high Reynolds numbers with slip boundary conditions (communicated, 2013).
15. V. Ambethkar, M.K.Srivastava, Numerical Study of Coupled Fluid flow and Heat Transfer Past a Rectangular Domain with Slip Boundary Conditions Using Control Volume Method (communicated, 2013).
16. V. Ambethkar, M.K.Srivastava, Numerical solutions of steady 2-D incompressible flow in a rectangular domain at with slip boundary conditions using the finite volume method. (communicated,2014).
17. V. Ambethkar, Solution of transient 2-D incompressible viscous flow with heat transfer using pressure based finite volume method, **Accepted** in *J.Advced. Res.Appl.Maths*. (2014).
18. V. Ambethkar, Numerical Study of Coupled Fluid flow with Heat and Mass Transfer Using Finite Volume Discretization, *J.Mathematical and Computational Sciences*, Vol.5, No.1, 2015, pp 99-122.

(V.AMBETHKAR)