

CURRICULUM VITAE (updated on 13.6.2021)

PRASHANTA KUMAR MANDAL, Ph.D.

Work Address:

Department of Mathematics
Visva-Bharati (a central university)
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Date of Birth : January 16, 1968

Gender: Male

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Nationality: Indian

Home Address:

Gurupally (West)
Hatipukur (South)
P.O.-Santiniketan
PIN-731 235
West Bengal, INDIA

CURRENT POSITION:

July 2012 - present

Professor
Department of Mathematics
Visva-Bharati, Santiniketan
West Bengal, India

October 12, 2017 - October 11, 2020

Professor and Head

EDUCATION:

1992-1997 : Ph.D. (Mathematics), Visva-Bharati University, Santiniketan-731 235, W.B., INDIA
Thesis Title: Some Analytical Studies on Biorheological Aspects of Blood Flow Through the Arteries Under Stenotic Conditions

1989-1991 : M.Sc.(Applied Mathematics), The University of Burdwan, W.B., INDIA

Work Experience (Full-time)

July 2012 – Present: Professor, Department of Mathematics, Visva-Bharati, Santiniketan, INDIA

October 12, 2017 - October 11, 2020: Professor & Head

July 2009 – June 2012: Associate Professor, Department of Mathematics, Visva-Bharati, Santiniketan, INDIA

July 2006 – June 2009: Reader, Department of Mathematics, Visva-Bharati, Santiniketan, INDIA

April 2005-June 2006 : Senior Lecturer, Department Mathematics,Visva-Bharati, Santiniketan, INDIA

July 2001-March 2005: Senior Lecturer in Mathematics, Krishnath College, Berhampore, Murshidabad, India

July 1997-June 2001 : Lecturer in Mathematics, Krishnath College, Berhampore, Murshidabad, India

August 1994- June 1997 : Senior Research Fellow (SRF), Council of Scientific and Industrial Research (CSIR), India, at Visva-Bharati, W.B, India. Also taught as a Teaching Assistant in Mathematics at B.Sc. Honours level at Visva-Bharati.

August 1992- July 1994 : Junior Research Fellow (JRF) , Council of Scientific and Industrial Research (CSIR), India, at Visva-Bharati, W.B.,India. Also taught as a Teaching Assistant in Mathematics at B.Sc. Honours level at Visva-Bharati.

Work Experience (Part-time):

December 1998-April 2001 : Lecturer (part-time) in Mathematics, Visva-Bharati, Santiniketan, W.B., India.

September 1998-April 1999 : Lecturer (part-time) in Mathematics, Murshidabad College of Engineering and Technology, Berhampore,W.B., India.

Visiting Appointments:

July 2009: Visiting Fellow, SIR Isaac Newton Institute for Mathematical Sciences, University of Cambridge, U.K.

April, 2008 : Visiting Associate Professor, Department of Mathematics, Universiti Teknologi Malaysia, Malaysia

December, 2005 : Visiting Lecturer,Department of Mathematics, Universiti Tecknologi Malaysia, Malaysia

Member :

Life Member: The Indian Society for Theoretical and Applied Mechanics (ISTAM).

Member: International Association of Engineers (IAENG).

Subject Editor (Biofluidynamics): FACETS (Canadian Science Publishing)

PUBLICATIONS (Refereed):

Computational Biofluid-dynamics, heat and mass transfer, Mathematical Ecology, Eco-epidemiology, Pattern Formation, Pharmacology, drug-eluting stent, drug-coated balloon

66. Das Prosanjit, Sarifuddin, Rana, J. and **Mandal, P.K (2021)**, "Unsteady analysis of solute dispersion in Casson fluid flow through stenotic tube with exchange between phases" **Physics of Fluid (accepted)**.
65. Alsemiry, R.D., Sarifuddin, **Mandal, P.K.**, Sayed, H.M. and Amin, N. (2021), " Unsteady analysis on intravenous drug delivery and its uptake in biological tissue" **Journal of Applied Nonlinear Dynamics**, pp. 531-546 | DOI: 10.5890/JAND.2021.09.012
64. Sarifuddin, Reima D. Alsemiry and **Prashanta Kumar Mandal (2021)**, "Effects of coating properties on controlled delivery from an embedded drug-eluting stent: A simulation study, Journal of Biological Systems, <https://doi.org/10.1142/S0218339021500145>.
63. Khan, M. A., Ahmed, L, **Mandal, P.K.**, Robert Smith? and Haque, Mainul (2020), "Modeling the dynamics of pine wilt disease with asymptomatic carrier and optimal control," **Scientific Report**, 10, 11412. <https://doi.org/10.1038/s41598-020-67090-7>.
62. Mondal, A., **Mandal, P. K.**, Weigand, B. and Nayak A. (2020), "Entropy and heat transfer analysis of EMHD flow with temperature-dependent properties," **Fluid Dynamics Research**,52 065503.
61. Sarifuddin, Roy, S. and **Mandal, P.K. (2020)**, "Computational model of stent-based delivery from a half-embedded two-layered coating" , **Computer Methods in Biomechanics and Biomedical Engineering**, <https://doi.org/10.1080/10255842.2020.1767775>.
60. Das Prosanjit, Sarifuddin and **Mandal, P.K (2020)**, Solute dispersion in Casson fluid flow through a stenosed artery with absorptive wall, **Journal of Applied Mathematics and Physics (ZAMP)**, 71, 100, <https://doi.org/10.1007/s00033-020-01322-8>.
59. Reima D. Alsemiry, Sarifuddin, **Mandal, P.K**, Hamed M. Sayed and Norsarahaida Amin (2020), "Numerical solution of blood flow and mass transport in an elastic tube with multiple stenoses", **Biomedical Research International**, vol. 2020 7609562. 31 Jan. 2020, doi:10.1155/2020/7609562.
58. Reima D. Alsemiry, Sarifuddin, **Mandal, P.K**, Hamed M. Sayed and Norsarahaida Amin (2020), "Effects of pulsatility and double stenoses on power law model of blood flow and mass transport in vessel", **JP Journal of Heat and Mass Transfer** 19(1):97-128, DOI: [10.17654/HM019010097](https://doi.org/10.17654/HM019010097).
57. Mondal, S. , Sibanda, P. , **Mandal, P.K.** and Murthy, P.V.S.N. (2019), "Unsteady double-diffusive natural convection in a two-sided lid-driven inclined porous enclosure with sinusoidal boundary conditions with Soret and Dufour effects", **Physics and Chemistry of Liquids**, vol. 57, pp. 349-361.
56. Sarifuddin and **Mandal, P. K. (2018)**, " Effect of Interstitial Fluid Flow on Drug-Coated Balloon Delivery in a Patient-Specific Arterial Vessel with Heterogeneous Tissue Composition: A Simulation Study" **Cardiovascular Engineering and Technology**, vol. 9, pp. 251-267.

55. Mandal, A. P. and **Mandal, P.K. (2018)** “Distribution and retention of drug through an idealised atherosclerotic plaque from half-embedded drug-eluting stent”, **International Journal of Dynamics and Control**, vol. 6, pp. 1183-1193.
54. Saha, R. and **Mandal, P. K. (2018)**, “Modelling time-dependent release kinetics in a stent-based delivery”, **Journal of Exploratory Research in Pharmacology**, vol. 3 , pp. 61–70.
- 53.Saha, R. and **Mandal, P. K. (2018)** “Effect of flow pulsatility and time-dependent release kinetics on stent-based delivery through atherosclerotic plaque”, **International Journal of Dynamics and Control**, vol.-6, pp. 1-13.
52. Mandal, A. P. and **Mandal, P.K. (2017)** “Computational Modelling of Three-phase Stent-based Delivery”, **Journal of Exploratory Research in Pharmacology**, vol. 2, pp. 31–40.
51. Reddy, JVR, Srikanth, D. and **Mandal, P.K. (2017)** “Computational Hemodynamic Analysis of Flow Through Flexible Permeable Stenotic Tapered Artery”, **International Journal of Applied and Computational Mathematics**, vol. 3, pp. 1261-1287.
- 50.Saha, R. and **Mandal, P. K. (2017)** “Effect of interstrut distance on the transport of drug and its retention in the arterial tissue”,**International Journal of Applied and Computational Mathematics**, Vol. 3, No. 3, pp 2039–2054.
49. Mandal, A. P. and **Mandal, P.K. (2017)** “On the role of luminal flow and interstrut distance in modelling drug transport from half-embedded drug-eluting stent”, **Global Journal of Interdisciplinary Research**, published January 2017 [Invited Paper].
48. **Mandal, P.K.**, Sarifuddin and Kolachalama, V. B. (2016) “Computational model of drug-coated balloon delivery in a patient-specific arterial vessel with heterogeneous tissue composition”, **Cardiovascular Engineering and Technology**, Vol. 7, No. 4, pp. 406–419.
- 47.Saha, R., Sarifuddin, Misra, J.C. and **Mandal, P. K. (2016)** “ Impact of luminal flow on mass transport through coronary arteries : a study relevant to drug-eluting stent”, **International Journal of Mathematics and Computation**, Vol. 27, Issue No. 3, pp. 40-58.
46. Mandal, A. P. and **Mandal, P. K. (2016)** “Drug elution model of coronary stent: effects of stent embedment and binding of drug”, **International Journal of Biomedical Engineering and Technology**, Vol. 20, No. 2, pp. 150-165.
- 45.Sarifuddin and **Mandal, P. K. (2016)** “Effect of diffusivity on the transport of drug eluted from drug-eluting stent”, **International Journal of Applied and Computational Mathematics**, vol.-2, pp. 291-301.
44. Mandal, A. P, Sarifuddin and **Mandal, P. K. (2015)** “An unsteady analysis of arterial drug transport from half-embedded drug-eluting stent”, **Applied Mathematics and Computation**, vol.-266, pp.-968–981.
- 43.Sarifuddin, Chakravarty, S. and **Mandal, P.K. (2014)** “Numerical simulation of Casson fluid flow through differently shaped arterial stenoses” **Journal of Applied Mathematics and Physics (ZAMP)**,

vol. - 65, pp 767-782

42. Sarifuddin, Chakravarty, S., **Mandal, P.K.** (2013) "Physiological flow of shear-thinning viscoelastic fluid past an irregular arterial constriction", **Korea – Australia Rheology Journal**, vol.-25, pp. 163-174.

41. Sarifuddin, Chakravarty, S., **Mandal, P.K.** (2013) "Heat Transfer to Micropolar Fluid Flowing Through an Irregular Arterial Constriction", **International Journal of Heat and Mass Transfer**, vol.-56, pp. 538–551

40. Ikbal, A, Chakravarty, S., **Mandal P K** (2012) "Unsteady Analysis of Viscoelastic Blood Flow through Arterial Stenosis" **Chemical Engineering Communications**, vol.-199, pp.40-62.

39. Ikbal, A, Chakravarty, S., Sarifuddin, **Mandal P K** (2011) "Numerical Simulation of Mass Transfer to Micropolar Fluid Flow Past a Stenosed Artery" **International Journal for Numerical Methods in Fluids**, vol. 67, pp. 1655-1676.

38. Mustapha, N, **Mandal, P.K.**, Abdullah, I and Amin, N, Hayat, T. (2011) " Numerical simulation of generalized Newtonian blood flow past a couple of irregular arterial stenoses", **Numerical Methods for Partial Differential Equations**, vol.-7, pp. 960-981.

37. Mustapha, N, **Mandal, P.K.**, Johnston, P R. and Amin N (2010) " A numerical simulation of unsteady blood flow through multi-irregular arterial stenosis," **Applied Mathematical Modelling**, 34, pp. 1559-1573.

36. Ikbal.A, Chakravarty, S. and **Mandal. P.K.** (2009) "Two-layered micropolar fluid flow through stenosed artery: Effect of peripheral layer thickness," **Computer and Mathematics with Applications**, vol.-58, pp. 1328-1339.

35. Mustapha, N, Chakravarty, S, **Mandal, P.K.**, Amin, N. (2009) "Unsteady Magneto hydro dynamic blood flow through irregular multi-stenosed arteries", **Computers in Biology and Medicine**, vol.-39, pp. 896-906.

34. Sarifuddin, Chakravarty, S., **Mandal, P.K.** (2009) "Effect of Heat and Mass Transfer to Blood Flow-Links to Atherosclerosis" **International Journal of Heat and Mass Transfer**, vol-52, 5719-5730.

33. Sarifuddin, Chakravarty, S., **Mandal, P.K.** (2009) "Effect of Asymmetry and Roughness of Stenosis on non-Newtonian Blood Flow Past an Arterial Segment" **International Journal of Computational Methods**, vol-6, 1-28.

32. Ikbal.A, Chakravarty, S., Wong, K., Mazumdar, J. and **Mandal. P.K.** (2009) "Unsteady Response of Non-Newtonian Blood Flow Through a Stenosed Artery in Magnetic Field." **Journal of Computational and Applied Mathematics**, vol-230, pp. 243-259.

31. Sarifuddin, Chakravarty, S., **Mandal, P. K.** and Andersson, H. I. (2009) "Mass Transfer to Blood Flowing Through Arterial Stenosis", **Journal of Applied Mathematics and Physics (ZAMP)**, vol.-60, no.-2, pp. 299-323.

30. Mustapha, N, Chakravarty, S., **Mandal, P.K.** and Amin, N. (2008) “Unsteady Response of Blood Flow Through a Couple of Irregular Arterial Constrictions to Body Acceleration”, **Journal of Mechanics in Medicine and Biology**, vol.-8, no.-3, pp. 395-420.
29. Sarifuddin, Chakravarty, S., **Mandal, P. K.** and **Layek, G.C.** (2008) “Numerical Simulation of Unsteady generalized Newtonian Blood Flow Through Differently Shaped Distensible Arterial Stenoses”, **Journal of Medical Engineering and Technology**, vol.-32, no.-5, pp.-385-399.
28. Iqbal, A., Chakravarty, S. and **Mandal, P.K.** (2008) “An Unsteady Peristaltic Transport Phenomenon of Non-Newtonian Fluid-A Generalised Approach”, *Applied Mathematics and Computation*, Vol.-201, pp. 16-34.
27. **Mandal, P. K.**, Chakravarty, S. and Mandal, A (2007) “Numerical Study on the Unsteady Flow of Non-Newtonian Fluid Through Differently Shaped Arterial Stenoses.” **International Journal of Computer Mathematics**, Vol.-84, no.-7, pp. 1059–1077.
26. **Mandal, P.K.**, Chakravarty, S., Mandal, A and Amin, N (2007) “Effect of Body Acceleration on Unsteady Pulsatile Flow of Non-Newtonian Fluid Through a Stenosed Artery”, **Applied Mathematics and Computation**, vol.-189, no.-1, pp. 766-779.
25. Chakravarty, S., **Mandal, P. K.** and Sarifuddin (2005) “Effect of Surface Irregularities on Unsteady Flow of Blood Past an Irregular Stenosis”, **Int. J. Nonlinear Mechanics**, vol.-40, no.-10, pp. 1268-1281.
24. **Mandal, P. K.** (2005) “An Unsteady Analysis of Non-Newtonian Pulsatile Flow Through Tapered Arteries With a Stenosis”, **Int. J. Nonlinear Mechanics**, vol.-40, pp. 151-164.
23. Chakravarty, S., Sarifuddin and **Mandal, P.K.** (2004) “An Unsteady Flow of Two-Layered Blood Stream Past a Tapered Flexible Artery Under Stenotic Conditions”, **Computational Methods in Applied Mathematics**, vol.-4, no.-4, pp. 391-409.
22. Chakravarty, S., **Mandal, P.K.** and Mandal, A. (2004) “Numerical Simulation of Unsteady Two – Layered Blood Flow in a Stenosed Flexible Artery :Effect of Peripheral Layer Viscosity”, **Mathematical Modelling and Analysis**, vol-9, no-2, 99-114.
21. **Mandal, P.K.** (2003) “An Unsteady Analysis of Nonlinear Two—Layered 2D Model of Pulsatile Flow Through Stenosed Arteries”, **Mathematical Modelling and Analysis**, vol-8, no-3, 229-246.
20. Chakravarty, S., **Mandal, P.K.** and Mandal, A. (2000) “Mathematical Model of Pulsatile Blood Flow in a Distensible Aortic Bifurcation Subject to Body Acceleration”, **Int. J. Engng. Sci.**, 38, 215-238 .
19. Chakravarty, S. and **Mandal, P.K.** (2000) “Two--Dimensional Blood Flow Through Tapered Arteries Under Stenotic Conditions”, **Int. J. Nonlinear. Mechanics**, vol.-35, 779--793.
18. Chakravarty, S. and **Mandal, P.K.** (1997) “An Analysis of Pulsatile Flow in a Model Aortic Bifurcation”, **Int. J. Engng. Sci**, vol. 35, no. 4, pp 409 –422.

17. Chakravarty, S. and **Mandal, P.K.(1996)** “A Nonlinear Two Dimensional Model of Blood Flow in an Overlapping Arterial Stenosis Subjected to Body Acceleration”, **Mathl. Comput. Modelling**, vol. 24, no. 1, pp 43--58.
16. Chakravarty, S., Datta, A . and **Mandal, P.K.(1996)** “Effect of Body Acceleration on Unsteady Flow of Blood Past a Time-Dependent Arterial Stenosis”, **Mathl. Comput. Modelling**, vol. 24, no. 2, pp 57 - 74.
15. Chakravarty, S., Datta, A . and **Mandal, P.K.(1995)** “Analysis of Nonlinear Blood Flow in a Stenosed Flexible Artery” **Int. J. Engng. Sci**, vol. 12, no. 33, pp 1821--1837.
14. Chakravarty, S. and **Mandal, P. K.(1994)** “Mathematical Modelling of Blood Flow Through an Overlapping Arterial Stenosis”, **Mathl. Comput. Modelling**, vol. 19, no. 1, pp 59--70.
13. Guin, L. N., Chakravarty, S., **Mandal, P.K. (2015)** “Existence of spatial patterns in reaction-diffusion systems incorporating a prey refuge” **Nonlinear Analysis: Modelling and Control**, Vol. 20, No. 4, pp. 509-527
12. Guin, L. N., **Mandal, P.K. (2014)** “Effect of prey refuge on spatiotemporal dynamics of reaction - diffusion system” **Computer and Mathematics with Applications**, vol. 68, pp. 1325-1340.
11. Guin, L. N., **Mandal, P.K. (2014)** “Spatial pattern in a diffusive predator-prey model with sigmoid ratio-dependent functional response, **International Journal of Biomathematics**, 07, 1450047, DOI: 10.1142/S1793524514500478.
10. Guin, L. N., **Mandal, P.K. (2014)** “Spatiotemporal dynamics of reaction-diffusion models of interacting populations” ,**Applied Mathematical Modelling**, vol.-38, pp. 4417–4427.
9. Pal, P J, **Mandal, P K**, Lahiri, K (2013) “A delayed ratio-dependent predator-prey model of interacting populations with Holling type III functional response, **Nonlinear Dynamics**, vol.-76, pp.-201-220.
8. Sarwardi, S., Haque, M., **Mandal, P.K. (2014)** “Persistence and global stability of Bazykin predator-prey model with Beddington De-Angeli response function”, **Communications in Nonlinear Science and Numerical Simulation**, vol.-19, pp. 189-209.
7. Pal, P J, **Mandal, P K (2014)** “Bifurcation analysis of a modified Leslie-Gower predator-prey model with Beddington-DeAngelis functional response and strong Allee effect” **Mathematics and Computers in Simulation**, vol.-97, pp. 123-146.
6. Pal, P J, Haque, M. , **Mandal, P K (2014)** “Dynamics of a predator-prey model with disease in the predator”, **Mathematical Models in the Applied Sciences**, vol.-37, pp. 2429–2450.
5. Sarwardi, S., **Mandal, P.K., S.Ray (2013)** “Dynamical behaviour of a two-predator model with prey refuge” **Journal of Biological Physics**, vol.-39, pp. 101-122.
4. Sarwardi, S., **Mandal, P.K., S.Ray (2012)** “Analysis of a competitive prey-predator system with a prey refuge”, **Biosystems**, vol.- 110, pp. 133-148.

3. Sarwardi, S., Haque, M., **Mandal, P.K. (2012)** “ Ratio dependent predator-prey model of interacting population with delay effect.”, **Nonlinear Dynamics**, vol. **69**, pp.817–836.

2. Guin, L.N., Haque, M., **Mandal, P.K. (2012)** “The spatial pattern through diffusion-driven instability in a predator-prey model”, **Applied Mathematical Modelling**, vol. **36**, pp. 1825-1841.

1. Pal, P J, Sarwardi, S, Saha, T and **Mandal, P K (2011)** “Mean Square Stability in a Modified Leslie-Gower and Holling-Type II Predator-Prey Model” **Journal of Applied Mathematics and Informatics**, vol.-29, pp. 781-802.

Ph.D. Students:

Past:

1. Arabinda Mandal (2008) (jointly with Professor S Chakravarty)

Title of thesis: Studies on mathematical models of arteriosclerotic blood flow

2. Sarifuddin (2009) (jointly with Professor S Chakravarty)

Title of thesis: Some problems of the biomechanics of blood flow in arteries

3. Asif Iqbal (2011) (jointly with Professor S Chakravarty)

Title of thesis: Some model studies on non-Newtonian biofluid flow through blood vessels

4. Sahabuddin Sarwardi (2013)

Title of thesis: Mathematical modelling of some ecological and eco-epidemiological systems

5. Pallav J Pal (2013)

Title of thesis: Studies on some aspects of nonlinear population dynamics

6. Lakshmi Narayan Guin (2014)

Title of thesis: Turing instabilities and spatial pattern formation on some predator-prey models

7. Akash Pradip Mandal (2017)

Title: Some studies on luminal flow and drug transport from drug-eluting stents

8. Ramprosad Saha (2018)

Title: Some model studies on drug transport associated with drug-eluting stents

Present:

1. Prosenjit Das

2. Sayantan Biswas

Invited Talk

◆ Delivered an invited talk in the national Conference on Mathematical Modeling and its Application in Natural and Engineering Science (NSMMANES-2019) on 25th March, 2019, Aliah University, Kolkata, INDIA.

◆ Delivered an invited talk in the International Conference on Mathematical Modelling and Computations (ICMMC-2018) (UNDER THE AEGIS OF IAMMS, IIT KANPUR), December 1-3, 2018, South Asian University, New Delhi, INDIA.

- ◆ Delivered an invited talk in the International Conference on Mathematics and its Application, February 15-17, 2018, Department of Mathematics, Burdwan University, INDIA.
- ◆ Delivered an invited talk in the national level seminar on “ Emerging issues in inter & intra – disciplinary studies : An Indian Perspective”, March 4-5, 2016, Suri Vidyasagar College, W.B.
- ◆ Delivered an invited talk in the 1st International Conference on Mathematics and its Application 23 December, 2015 Mathematics Discipline, Khulna University, Bangladesh
- ◆ Delivered an invited talk in the National Seminar on computational hemodynamics: clinical and engineering aspects organised by Jadavpur University, KOLKATA during August 17-18, 2012.
- ◆ Invited for oral presentation in Seventeenth Mathematics Conference of Bangladesh Mathematical Society on 22-24 December, 2011 at Jahangirnagar University, Savar, Dhaka, Bangladesh.
- ◆ Delivered an invited talk in the National Seminar on Mathematics and Applications, February 24-25, 2011 at Department of Mathematics, The University of Burdwan,
- ◆ Delivered an invited talk on Mathematical Modelling of Physiological Flow on Dec. 29, 2005 at Institute for Mathematical Research, Universiti Putra Malaysia, Malaysia

Seminar/Symposia/Conference/Programme Attended :

- ◆ Participated the International Workshop on Recent Advances in Computational Fluid Dynamics, Aug 30 –Sept 02, 2010 at Indian Institute of Technology, Guwahati, INDIA
- ◆ Participated the international conference on Frontier of Mathematics and Applications, January 16-18, 2010 at The University of Burdwan, India
- ◆ Participated as a visiting fellow in the programme The Cardiac Physiome Project at SIR Isaac Newton Institute for Mathematical Sciences, University of Cambridge, U.K., during July 12-18, 2009.
- ◆ Participated international conference on Frontier of Mathematics and Applications, January 16-18, 2008 at The University of Burdwan, India
- ◆ Attended 21 days University Grant Commission (UGC) sponsored Refreshers’ Course from 21.01.2006 to 10.02.2006 at The University of Burdwan, India.
- ◆ Attended 21 days University Grant Commission (UGC) sponsored Refreshers’ Course from 25.12.2004 to 14.01.2005 at The University of Burdwan, India.
- ◆ Attended 28 days University Grant Commission (UGC) sponsored Orientation programme from 22.05.2001 to 19.06.2001 at Calcutta University, India.
- ◆ Participated the National Seminar on “Mathematics and its Application”, at the University of Burdwan, India on December 26- 28, 2001.
- ◆ Participated the National Seminar on “Recent Trends in Mathematics and its Application”, at the Visva-Bharati, Santiniketan, India on February 25-26, 2002.

AWARDS, SCHOLARSHIPS AND ACHIEVEMENTS:

- Visiting Fellow, SIR Isaac Newton Institute for Mathematical Sciences, University of Cambridge, U.K in 2009.
- Visiting Associate Professor, Department of Mathematics, Universiti Teknologi Malaysia, Malaysia in 2008
- Visiting Lecturer, Department of Mathematics, Universiti Tecknologi Malaysia, Malaysia in 2005
- Awarded **National Research Fellowships** and eligibility for lectureship from University Grants Commission (UGC) and Council of Scientific and Industrial Research (CSIR), India in 1991.
- Qualified **Graduate Aptitude Test in Engineering (GATE)** conducted by IIT, Delhi on behalf of MHRD, Govt. of India in 1992.

AREA OF RESEARCH INTEREST:

Controlled drug delivery (Drug-eluting stent, drug-coated balloon) , Biofluid Dynamics, Fluid Dynamics / Computational Fluid Dynamics, Mathematical Ecology, Eco-epidemiology, Pattern Formation