

## CURRICULUM-VITAE

**Name** : **DR. ARVIND KUMAR MISRA**  
(M.N.A. Sc.)

Date of Birth : July 01, 1972

Sex : Male

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### EDUCATIONAL QUALIFICATIONS:

Examination	Year	Board/Univ.	Division	%	Subjects
High School	1986	U.P. Board Allahabad	First	63.2	Science-2, Biology, Hindi, English, Social Science
Intermediate	1988	U.P. Board Allahabad	First	70.2	Mathematics-2 Physics, Chemistry, Hindi, English, Mathematics
B. Sc.	1991	Lucknow University	First	69.44	Physics, Chemistry, Mathematics
M. Sc.	1994	I.I.T., Kanpur	-	CPI 9.0/10	Mathematics
Ph. D.	2004	I.I.T., Kanpur	-	CPI 8.29/10	Math.Modelling-Water Pollution and Eutrophication

**TOPIC OF THE Ph.D. THESIS** : Mathematical modelling of the depletion of dissolved oxygen caused by water pollution and eutrophication: Effects on survival of aquatic populations

**THESIS SUPERVISORS** : Prof. J.B.Shukla and Prof. P. Chandra, IIT Kanpur

**TEACHING EXPERIENCE** : Lecturer, May 05, 1998- May 04, 2007  
(Brahmanand P.G. College, Kanpur)  
Reader w.e.f. May 05, 2007 – Nov. 16, 2007.  
(Brahmanand P.G. College, Kanpur)  
Reader Nov. 17, 2007 – May 04, 2010, BHU Varanasi  
Asso. Professor, May 05, 2010 – May 04, 2013, BHU Varanasi  
**Professor w.e.f. May 05, 2013, BHU Varanasi.**

## COURSES TAUGHT

- (i) B.Sc. - Calculus, Numerical Analysis & Computer Programming, Real and Complex Analysis, Differential Equations, Integral Transforms, Linear Algebra, Matrices.
- (ii) M. Sc. – Differential Equations, Partial Differential Equations, Complex Analysis, Mathematical Methods, Mathematical Modeling, Computational Bioinformatics, Fluid Dynamics.

## RESEARCH INTEREST

- (i) Mathematical Modeling of environmental & ecological systems.
- (ii) Mathematical Modeling of Epidemics.
- (iii) Mathematical Modeling of Social Dynamics.
- (iv) Delay Mathematical Modeling
- (v) Spatio - Temporal Modeling

## Ph.D. THESIS SUPERVISED

- (i) Anupama Sharma: Mathematical modeling and analysis of the impact of media awareness on epidemic outbreaks. (**Awarded on 19<sup>th</sup> April, 2014**)
- (ii) Kusum Lata: Mathematical modeling and analysis for the conservation of forestry resources by applying technological and economic efforts (**Awarded on 08<sup>th</sup> August, 2014**)
- (iii) Vishal Singh: Mathematical modeling and analysis of spread of carrier dependent infectious diseases (**Awarded, 05<sup>th</sup> February, 2015**)
- (iv) Maitri Verma: Mathematical modeling and analysis of global warming gases and their control (**Awarded, September, 2015**)
- (v) Pankaj K. Tiwari: Mathematical modeling and analysis of water pollution and the control of algal bloom in water bodies (**Awarded, November, 2015**)
- (vi) Alok Gupta: Mathematical modeling and analysis of communicable diseases and their control (**submitted on 06<sup>th</sup> February 2018**)
- (vii) Rajanish K. Rai: Dynamics of infectious diseases: Effect of awareness through budget allocation and advertisements (**Awarded on 07<sup>th</sup> February, 2020**)
- (viii) Amita Tripathi: Mathematical modeling and analysis of water resources and their conservation (**on going**)
- (ix) Rajesh Singh: Mathematical modeling and analysis of some predator – prey systems (**on going**)
- (x) Rahul Patel: Mathematical modeling and analysis of some infectious diseases (**on going**)
- (xi) Jyoti Maurya: Mathematical modeling of infectious diseases in reference of health care management (**on going**)
- (xii) Anjali Jha: Modeling the dynamics of greenhouse gases and their effects on human population (**on going**).
- (xiii) Soumitra Pal: Mathematical modeling and analysis of predator – prey system (**on going**).

## MENTORSHIP TO POST DOCTORATE FELLOW

- (i) Dr. A. Sharma: From 1<sup>st</sup> March, 2014 to 24<sup>th</sup> August, 2015 (NBHM PDF)
- (ii) Dr. K. Lata: From 1<sup>st</sup> September, 2014 to 31<sup>st</sup> August, 2017 (NBHM PDF)
- (iii) Dr. M. Verma: From 24<sup>th</sup> April, 2015 to 19<sup>th</sup> November, 2017 (NBHM PDF)

## ACADEMIC DISTINCTIONS/ACHIEVEMENTS

- (i) Executive council member – Dr. R M L Avadh University, Ayodhya.
- (ii) JBS gold medal 2018 awarded by IAMMAS for best mathematical modeller in India.
- (iii) Member, Board of studies, HBTU Kanpur, Banasthali Vidyapeeth, Jiwaji University Gwalior.
- (iv) Editor – Modeling Earth Systems and Environment, published by Springer
- (v) Qualified **CSIR JRF** examination December 1993.
- (vi) Qualified **GATE** examination 1994 (with percentile 96.26).
- (vii) Aailed **CSIR JRF and SRF** during Ph.D. program, 1994-1998, IIT Kanpur
- (viii) Received “**General Proficiency Medal**”, for **Best Academic Performance** during M.Sc. program, 1994, IIT Kanpur
- (ix) Aailed **MCM scholarship** during M.Sc. program, IIT Kanpur

## WORKSHOP/ CONFERENCE ORGANISED

- (i) **Convener:** Workshop on Dynamical Systems: Analysis and Applications at BHU from 22<sup>nd</sup> to 31<sup>st</sup> October, 2009 as (Sponsored by **DST-CIMS**, BHU Varanasi).
- (ii) **Convener:** National Meet of Research Scholars in Mathematical Sciences (**NMRSMS-12**) at BHU from 18<sup>th</sup> Nov. to 22<sup>nd</sup> Nov., 2012 as (Sponsored by **DST-New Delhi**).
- (iii) **Convener:** Symposium on Biomathematics in IMS Conference at BHU on 23<sup>rd</sup> Jan., 2013.
- (iv) **Co-ordinator:** Advanced workshop on Partial Differential Equations: Analysis and Applications (**PDEAA-2013**) at BHU from 22<sup>nd</sup> July to 31<sup>st</sup> July, 2013. (Sponsored by **DST-CIMS**, BHU Varanasi)
- (v) **Convener:** 29<sup>th</sup> Annual National Conference Mathematical Society Banaras Hindu University, Varanasi on February 03 – 04, 2014.
- (vi) **Convener:** A Mini Workshop on Biomathematics, at BHU from 28<sup>th</sup> March, 2015 to 30<sup>th</sup> March, 2015 (Sponsored by NPDE – DST, New Delhi).
- (vii) **Convener:** Advanced level research workshop on Mathematical Modeling of Environmental, Ecological and Epidemiological systems, August 24 - 29, 2016 (Sponsored by NPDE – DST, New Delhi).
- (viii) **Convener:** International Conference on Mathematical Modeling and Simulation, August 29 - 31, 2016 (Partially supported by NBHM, Mumbai).

## PROJECTS

- (i) Completed one minor research project titled “Mathematical Modeling and Analysis of Eutrophication: Effects of Nutrients Supplied by Water Run-Off” approved by University Grant Commission, New Delhi, March 2004.
- (ii) Major research project entitled “Mathematical Modeling of Emission and Control of Greenhouse Gases” approved by University Grant Commission, New Delhi, India. (Ongoing)
- (iii) Major research project entitled “Modeling the effect of awareness created by media campaigns on the epidemic outbreaks” approved by SERB (Science and Engineering Research Board), DST New Delhi, India (Awarded).

## RESEARCH PUBLICATIONS

1. J.B. Shukla, **A.K. Misra** and P. Chandra, Modeling the depletion of dissolved oxygen in a water body due to organic pollutants and their effect survival of species, Edited Volume on

Mathematical Biology (eds. P.Chandra & B.V.Rathish Kumar) Anamaya Publishers, New Delhi, (2005) 266-273.

2. **A.K. Misra**, P. Chandra and J.B. Shukla: Mathematical modeling and analysis of the depletion of dissolved oxygen in water bodies, *Nonlinear Analysis: Real World Applications*, 7 (2006) 980 – 996, **DOI 10.1016/j.nonrwa.2005.09.002** (Elsevier, I.F. = 2.085, No. of citations = 41).
3. J.B. Shukla, **A.K. Misra** and Peeyush Chandra: Mathematical modeling of the survival of biological species in polluted water bodies, *Differential Equations and Dynamical Systems*, 15(3 & 4) (2007) 209-230, (Springer, I.F. = 0, No. of citations = 11).
4. **A.K. Misra**, *Mathematical Modeling and Analysis of Eutrophication of Water Bodies Caused by Nutrients*, *Nonlinear Analysis: Modelling and Control*, 12 (4) (2007) 511–524 (Vilnius University Institute of Mathematics and Informatics, I.F. = 2.339, No. of citations = 23).
5. Ram Naresh, Surabhi Pandey and **A.K. Misra**: Analysis of a vaccination model for carrier dependent infectious diseases with environmental effects, *Nonlinear Analysis: Modelling and Control*, 13(3) (2008) 331–350 (Vilnius University Institute of Mathematics and Informatics, I.F. = 2.339, No. of citations = 27).
6. J.B. Shukla, **A.K. Misra**, Shyam Sundar and Ram Naresh, Effect of rain on removal of a gaseous pollutant and two different particulate matters from the atmosphere of a city, *Mathematical and Computer Modelling*, 48 (2008) 832–844, **DOI 10.1016/j.mcm.2007.10.016** (Elsevier, I.F. = 1.41, No. of citations = 33).
7. J.B. Shukla, **A.K. Misra** and Peeyush Chandra: Mathematical modeling and analysis of the depletion of dissolved oxygen in eutrophied water bodies affected by organic pollutants, *Nonlinear Analysis: Real World Applications*, 9 (2008) 1851–1865, **DOI 10.1016/j.nonrwa.2007.05.016** (Elsevier, I.F. = 2.085, No. of citations = 48).
8. **A.K. Misra**: Mathematical modeling of the survival of biological species in eutrophied water bodies, *Proc. Nat. Acad. Sci. India Sect A*, 78(IV) (2008) 331 - 340. (Springer, I.F. =0.681, No. of citations = 4).
9. J.B. Shukla, **A.K. Misra** and Peeyush Chandra, Modeling and analysis of the algal bloom in a lake caused by discharge of nutrients, *Applied Mathematics and Computation*, 196 (2008) 782 – 790, **DOI 10.1016/j.amc.2007.07.010** (Elsevier, I.F. = 3.092, No. of citations = 43).
10. J.B. Shukla, Shyam Sundar, **A.K. Misra** and Ram Naresh, Modelling the removal of gaseous pollutants and particulate matters from the atmosphere of a city by rain: effect of cloud density, *Environmental Modeling & Assessment*. 13 (2008) 255 – 263, **DOI 10.1007/s10666-007-9085-7** (Springer, I.F. = 1.253, No. of citations = 22).
11. Shyam Sundar, Ram Naresh, **A.K. Misra** and J. B. Shukla, A nonlinear mathematical model to study the interactions of hot gases with cloud droplets and raindrops, *Applied Mathematical Modelling*, 33(7) (2009) 3015 – 3024, **DOI 10.1016/j.apm.2008.10.032** (Elsevier, I.F. = 2.841, No. of citations = 10).

12. **A.K. Misra** and B. Dubey: A ratio-dependent predator prey model with delay and harvesting, *Journal of Biological Systems*, 18(2) (2010) 437–453, **DOI 10.1142/S021833901000341X** (No. of citations = 12) (World Scientific, I.F. = 0.839, No. of citations = 6).
13. J.B. Shukla, **A.K. Misra**, Ram Naresh and Peeyush Chandra, How artificial rain can be produced? A mathematical model, *Nonlinear Analysis: Real World Applications*, 11(4) (2010) 2659 – 2668, **DOI 10.1016/j.nonrwa.2009.09.013** (Elsevier, I.F. = 2.085, No. of citations = 10).
14. **A.K. Misra**, Modeling the depletion of dissolved oxygen in a lake due to submerged macrophytes, *Nonlinear Analysis: Modelling and Control*, 15(2) (2010) 185 – 198, (Vilnius University Institute of Mathematics and Informatics, I.F. = 2.339, No. of citations = 31).
15. **A.K. Misra**, Anupama Sharma and J.B. Shukla, Modeling and analysis of effects of awareness programs by media on the spread of infectious diseases, *Mathematical and Computer Modelling*, 53 (5-6) (2011) 1221–1228, **DOI 10.1016/j.mcm.2010.12.005** (Elsevier, I.F. = 1.41, No. of citations = 97).
16. **A.K. Misra** and Arvind K. Singh: A mathematical model for unemployment, *Nonlinear Analysis: Real World Applications*, 12(1) (2011) 128–136. (Elsevier, I.F. = 2.085, No. of citations = 20).
17. **A.K. Misra**, Anupama Sharma and Vishal Singh: Effect of awareness programs in controlling the prevalence of an epidemic with time delay, *Journal of Biological Systems*, 19(2) (2011) 389–402, **DOI 10.1142/S0218339011004020** (World Scientific, I.F. = 0.839, No. of citations = 51).
18. J.B. Shukla, Vishal Singh and **A.K. Misra**: Modeling the spread of an infectious disease with bacteria and carriers in the environment, *Nonlinear Analysis: Real World Applications*, 12(5) (2011) 2541–2551, **DOI 10.1016/j.nonrwa.2011.03.003** (Elsevier, I.F. = 2.085, No. of citations = 17).
19. **A.K. Misra**, P. Chandra and V. Raghavendra: Modeling the depletion of dissolved oxygen in a lake due to algal bloom: effect of time delay, *Advances in Water Resources*, 34 (2011) 1232–1238, **DOI 10.1016/j.advwatres.2011.05.010** (Elsevier, I.F. = 3.673, No. of citations = 15).
20. J.B. Shukla, Kusum Lata and **A.K. Misra**: Modeling the depletion of a renewable resource by population and industrialization: effect of technology on its conservation, *Natural Resource Modeling*, 24(2) (2011) 242–267, **DOI 10.1111/j.1939-7445.2011.00090.x** (Wiley, I.F. = 1.019, No. of citations = 39).
21. J.B. Shukla, R. Sanghi, A. Goyal, **A.K. Misra**: Modeling the desalination of saline water by using bacteria and marsh plants, *Desalination* 277 (2011) 113–120, **DOI 10.1016/j.desal.2011.04.012** (Elsevier, I.F. = 6.035, No. of citations = 5).
22. **A.K. Misra**, Modeling the depletion of dissolved oxygen due to algal bloom in a lake by taking Holling type - III interaction, *Applied Mathematics and Computation*, 217(21) (2011) 8367–8376, **DOI 10.1016/j.amc.2011.03.034** (Elsevier, I.F. = 3.092, No. of citations = 15).

23. **A.K. Misra**, A simple mathematical model for the spread of two political parties, *Nonlinear Analysis: Modelling and Control*, 17(3) (2012) 343–354, **DOI 10.1016/0306-4549(84)90077-X** (Vilnius University Institute of Mathematics and Informatics, I.F. = 2.339, No. of citations = 17).
24. **A.K. Misra**, S.N. Mishra, A.L. Pathak, Peeyush Misra and Ram Naresh, Modeling the effect of time delay in controlling the carrier dependent infectious disease - Cholera, *Applied Mathematics and Computation*, 218(23) (2012) 11547–11557, **DOI 10.1016/j.amc.2012.04.085** (Elsevier, I.F. = 3.092, No. of Citations = 7).
25. **A.K. Misra** and Vishal Singh: A delay mathematical model for the spread and control of water borne diseases, *Journal of Theoretical Biology*, 301 (2012) 49-56, **DOI 10.1016/j.jtbi.2012.02.006** (Elsevier, I.F. = 1.875, No. of citations = 41).
26. **A.K. Misra** and Arvind K. Singh, A delay mathematical model for the control of unemployment, *Differential Equations and Dynamical Systems*, 21(3) (2013) 291-307, **DOI 10.1007/s12591-012-0153-3** (Springer, I.F. = NA, No. of citations = 15).
27. **A.K. Misra** and Maitri Verma, A mathematical model to study the dynamics of carbon dioxide gas in the atmosphere, *Applied Mathematics and Computation*, 219(16) (2013) 8595–8609, **DOI 10.1016/j.amc.2013.02.058** (Elsevier, I.F. = 3.092, No. of citations = 14 ).
28. **A.K. Misra** and Kusum Lata, Modeling the effect of time delay on the conservation of forestry biomass, *Chaos Solitons and Fractals*, 46 (2013) 1–11, **DOI 10.1016/j.chaos.2012.10.002**. (Elsevier, I.F. = 3.064, No. of citations = 20).
29. J.B. Shukla, Shyam Sundar, **A.K. Misra** and Ram Naresh, Modeling the effects of aerosols to increase rainfall in regions with shortage, *Meteorology and Atmospheric Physics*, 120(3-4) (2013) 157-163, **DOI 10.1007/s00703-013-0249-5** (Springer, I.F. = 1.656, No. of citations = 4 ).
30. A. Goyal, R. Sanghi, **A.K. Misra**, J.B. Shukla, A modeling study on the role of fungi in removing inorganic pollutants , *Mathematical Biosciences*, 244 (2013), 116-124, **DOI 10.1016/j.mbs.2013.04.014** (Elsevier, I.F. = 1.680, No. of citations = 4).
31. S. Samanta, S. Rana, A. Sharma, **A. K. Misra** and J. Chattopadhyay, Effect of awareness programs by media on the epidemic outbreaks: a mathematical model, *Applied Mathematics and Computation*, 219(12) (2013) 6965–6977, **DOI 10.1016/j.amc.2013.01.009**. (Elsevier, I.F. = 3.092, No. of citations = 55).
32. **A.K. Misra**, S.N. Mishra, A.L. Pathak, P.K. Srivastava and Peeyush Chandra, A mathematical model for the control of carrier-dependent infectious diseases with direct transmission and time delay, *Chaos, Solitons and Fractals*, 57 (2013) 41–53, **DOI 10.1016/j.chaos.2013.08.002** (Elsevier, I.F. = 3.064, No. of citations = 7).
33. **A.K. Misra**, Anupama Sharma and Jia Li, A mathematical model for control of vector borne diseases through media campaigns, *Discrete and Continuous Dynamical Systems Series- B*, 18(7) (2013) 1909 – 1927, **DOI 10.3934/dcdsb.2013.18.1909** (AIMS, I.F. = 0.972, No. of citations =13).
34. Anupama Sharma and **A. K. Misra**, Modeling the impact of awareness created by media campaigns on vaccination coverage in a variable population, *Journal of Biological Systems*,

22(2) (2014) 249-270, DOI 10.1142/S0218339014400051 (World Scientific, I.F. = 0.839, No. of citations = 18).

35. **A.K. Misra**, Kusum Lata and J.B. Shukla, Effects of population and population pressure on forest resources and their conservation: A modeling study, *Environment, Development and Sustainability*, 16(2) (2014) 361–374, DOI 10.1007/s10668-013-9481-x (Springer, I.F. = 1.676, No. of citations = 15).
36. **A.K. Misra**, Kusum Lata and J.B. Shukla, A mathematical model for the depletion of forestry resources due to population and population pressure augmented industrialization, *International Journal of Modeling, Simulation, and Scientific Computing*, 5(1) (2014) 1350022 (16 pages), DOI 10.1142/S1793962313500220 (World Scientific, I.F. = NA, No. of citations = 15).
37. **A.K. Misra** and Maitri Verma, Modeling the impact of mitigation options on methane abatement from rice fields, *Mitigation and Adaptation Strategies for Global Change*, 19 (2014) 927–945, DOI 10.1007/s11027-013-9451-5 (Springer, I.F. = 2.585, No. of citations = 10).
38. A. Goyal, R. Sanghi, **A.K. Misra** and J.B. Shukla, Modeling and analysis of the removal of an organic pollutant from a water body using fungi, *Applied Mathematical Modelling*, 38 (2014) 4863–4871, DOI 10.1016/j.apm.2014.03.050 (Elsevier, I.F. = 2.841, No. of citations = 8).
39. P. K. Tiwari, S. Rana, **A. K. Misra** and J. Chattopadhyay, Effect of cross-diffusion on the patterns of algal bloom in a lake: A nonlinear analysis, *Nonlinear Studies*, 21 (3) (2014) 443-462 (No. of citations = 1).
40. **A.K. Misra**, P.K. Tiwari, A. Goyal and J.B. Shukla, Modeling and analysis of the depletion of organic pollutants by bacteria with explicit dependence on dissolved oxygen, *Natural Resource Modeling*, 27(2) (2014), 258–273, DOI 10.1111/nrm.12033 (Wiley, I.F. = 1.019, No. of citations = 5).
41. J.B. Shukla, A. Goyal, P.K. Tiwari, **A.K. Misra**, Modeling the role of dissolved oxygen-dependent bacteria on biodegradation of organic pollutants, *International Journal of Biomathematics*, 7(1) (2014) 1450008(16pages), DOI 10.1142/S1793524514500089 (World Scientific, I.F. = 0.846, No. of citations = 2).
42. **A.K. Misra**, Modeling the effect of police deterrence on the prevalence of crime in the society, *Applied Mathematics and Computation*, 237 (2014) 531–545, DOI 10.1016/j.amc.2014.03.136 (Elsevier, I.F. = 3.092, No. of citations = 8).
43. **A.K. Misra**, Maitri Verma and Anupama Sharma, Capturing the interplay between malware and anti-malware in a computer network, *Applied Mathematics and Computation*, 229 (2014) 340–349, DOI 10.1016/j.amc.2013.12.059 (Elsevier, I.F. = 3.092, No. of citations = 26).
44. **A.K. Misra**, Anupama Sharma and J.B. Shukla, Stability analysis and optimal control of an epidemic model with awareness programs by media, *BioSystems*, 138 (2015) 53–62, DOI 10.1016/j.biosystems.2015.11.002 (Elsevier, I.F. = 1.623, No. of citations = 22).

45. **A. K. Misra**, M. Tiwari and Anupama Sharma, Spatio-temporal patterns in a cholera transmission model, *Journal of Biological Systems*, 23(3) (2015) 471-484, **DOI 10.1142/S0218339015500242** (World Scientific, I.F. = 0.839, No. of citations = 2).
46. **A.K. Misra** and Maitri Verma, Impact of environmental education on mitigation of carbon dioxide emissions: A modelling study, *International Journal of Global Warming*, 7(4) (2015) 466 – 486, **DOI 10.1504/IJGW.2015.070046** (Inderscience, I.F. = 0.779, No. of citations = 11).
47. **K. Misra**, Maitri Verma and E. Venturino, Modeling the control of atmospheric carbon dioxide through reforestation: effect of time delay, *Modeling Earth Systems and Environment*, 1(24) (2015), **DOI 10.1007/s40808-015-0028-z** (Springer, I.F. = 0, No. of citations = 18).
48. S. Cakraborty, P. K. Tiwari, **A. K. Misra** and J. Chattopadhyay, Spatial dynamics of a nutrient-phytoplankton system with toxic effect on phytoplankton, *Mathematical Biosciences*, 264 (2015) 94–100, **DOI 10.1016/j.mbs.2015.03.010** (Elsevier, I.F. = 1.680, No. of citations = 11).
49. **A.K. Misra** and P.K. Tiwari, A model for the effect of density of human population on the depletion of dissolved oxygen in a water body, *Environment Development and Sustainability*, 17 (2015) 623–640, **DOI 10.1007/s10668-014-9565-2** (Springer, I.F. = 1.676, No. of citations = 4).
50. **A.K. Misra**, Kusum Lata, A mathematical model to achieve sustainable forest management, *International Journal of Modeling, Simulation, and Scientific Computing*, 6(4) (2015) 1550040 (18 pages), **DOI 10.1142/S1793962315500403**. (World Scientific, I.F. = 0, No. of citations = 5)
51. Ashish Goyal, **A.K. Misra**, J.B. Shukla and Ajai Shukla, Modeling the role of government efforts in controlling extremism in a society, *Mathematical Methods in the Applied Sciences*, 38(17) (2015) 4300–4316, **DOI 10.1002/mma.3368** (Wiley, I.F. = 1.533, No. of citations = 2).
52. Anupama Sharma and **A.K. Misra**, Backward bifurcation in smoking cessation model with media campaigns, *Applied Mathematical Modelling*, 39(3-4) (2015) 1087–1098, **DOI 10.1016/j.apm.2014.07.022** (Elsevier, I.F. = 2.841, No. of citations = 7).
53. **A. K. Misra** and Kusum Lata, Depletion and conservation of forestry resources: A mathematical model, *Differential Equations and Dynamical Systems*, 23(1) (2015) 25–41, **DOI 10.1007/s12591-013-0177-3**. (Springer, I.F. = NA, No. of citations = 10 )
54. **A.K. Misra**, Amita Tripathi, Ram Naresh and J.B. Shukla, Modelling and analysis of the effects of aerosols in making artificial rain, *Modeling Earth Systems and Environment*, 2(179) (2016), **DOI 10.1007/s40808-016-0228-1** (Springer, I.F. = 0, No. of citations = 3).
55. **A. K. Misra**, P.K. Tiwari and E. Venturino, Modeling the impact of awareness on the mitigation of algal bloom in a lake, *Journal Biological Physics*, 42 (2016) 147–165, **DOI 10.1007/s10867-015-9397-9** (Springer, I.F. = 0.857, No. of citations = 10 ).



56. Kusum Lata and **A.K. Misra**, Modeling the effect of economic efforts to control population pressure and conserve forestry resources, *Nonlinear Analysis: Modelling and Control*, 22(4) (2016) 473–488, **DOI 10.15388/NA.2017.4.4** (Vilnius University Institute of Mathematics and Informatics, I.F. = 2.339, No. of citations = 2).
57. Kusum Lata, B. Dubey and **A.K. Misra**, Modeling the effects of wood and non-wood based industries on forestry resources, *Natural Resource Modeling*, 29(4) (2016) 559-580, **DOI 10.1111/nrm.12111** (Wiley, I.F. = 1.019 , No. of citations = 5).
58. **A.K. Misra**, Effects of aerosols in making artificial rain: A modeling study, *Journal of Mathematical Chemistry*, 54(8) (2016) 1596-1611, **DOI 10.1007/s10910-016-0639-2**, (Springer, I.F. = 1.810, No. of citations = 3).
59. **A. K. Misra**, Alok Gupta, A reaction-diffusion model for the control of cholera epidemic, *Journal of Biological Systems*, 23(4) (2016) 1-26, **DOI 10.1142/S0218339016500224** (World Scientific, I.F. = 0.839, No. of citations = 0).
60. **A.K. Misra**, Alok Gupta and Ezio Venturino, Cholera dynamics with Bacteriophage infection: A mathematical study, *Chaos, Solitons and Fractals*, 91 (2016) 610–621, **DOI 10.1016/j.chaos.2016.08.008** (Elsevier, I.F. = 3.064, No. of citations = 6).
61. A Kumar, A.K. Agrawal, A Hasan and **A.K. Misra**, Modeling the effect of toxicant on the deformity in a subclass of a biological species, *Modeling Earth Systems and Environment*, 2(40) (2016), **DOI 10.1007/s40808-016-0086-x** (Springer, I.F. = 0, No. of citations = 4).
62. J. B. Shukla, Maitri Verma and **A.K. Misra**, Effect of global warming on sea level rise: a modeling study, *Ecological Complexity*, 32 (Part A) (2017) 99-110, **DOI 10.1016/j.ecocom.2017.10.007** (Elsevier, I.F. = 1.713, No. of citations = 6).
63. **A.K. Misra** and Maitri Verma, Modeling the impact of mitigation options on abatement of methane emission from livestock, *Nonlinear Analysis: Modelling and Control*, 22(2) (2017) 210–229, **DOI 10.15388/NA.2017.2.5** (Vilnius University Institute of Mathematics and Informatics, I.F. = 2.339, No. of citations = 0).
64. P.K. Tiwari, I. M. Bulai, **A.K. Misra** and E. Venturino, Modeling the direct and indirect effects of pollutants on the survival of fish in water bodies, *Journal of Biological Systems*, 25(3) (2017) 521-543, **DOI 10.1142/s0218339017500243** (World Scientific, I.F. = 0.839, No. of citations = 2).
65. **A.K. Misra**, P.K. Tiwari and P. Chandra, Modeling the Control of Algal Bloom in a Lake by Applying Some External Efforts with Time Delay, *Differential Equations and Dynamical Systems*, (2017), **DOI 10.1007/s12591-017-0383-5** (Springer, I.F. = 0, No. of citations = 2).
66. S. Chakraborty, P.K. Tiwari, S.K. Sasmal, **A.K. Misra** and J. Chattopadhyay, Effects of fertilizers used in agricultural fields on algal blooms, *The European Physical Journal - Special Topics*, 226(9) (2017) 2119-2133, **DOI 10.1140/epjst/e2017-70031-7** (Springer, I.F. = 1.660, No. of citations = 3).
67. P. K. Tiwari, **A. K. Misra** and E. Venturino, The role of algae in agriculture: a mathematical study, *Journal of Biological Physics*, 43(2) (2017) 297-314, **DOI 10.1007/s10867-017-9453-8** (Springer, I.F. = 0.85 , No. of citations = 1 ).

68. E. Venturino, P.K. Tiwari and **A.K. Misra**, Modeling the depletion of dissolved oxygen in a water body located near a city, *Mathematical methods in the applied Sciences*, 40(4) (2017) 1081-1094, **DOI 10.1002/mma.4037** (Wiley Blackwell, I.F. = 1.533, No. of citations = 3).
69. Kusum Lata, **A.K. Misra** and R.K. Upadhyay, A mathematical model for the conservation of forestry resources with two discrete time delays, *Modeling Earth Systems and Environment*, 3(3) (2017) 1011-1027, **DOI 10.1007/s40808-017-0349-1** (Springer, I.F. = 0, No. of citations = 1).
70. **A.K. Misra**, Arvind K. Singh and Pushkar Kumar Singh, Modeling the role of skill development to control unemployment, *Differential Equations and Dynamical Systems*, (2017) 1-13, **DOI 10.1007/s12591-017-0405-3** (Springer, I.F. = 0, No. of citations = 1).
71. R. K. Upadhyay, Sangeeta Kumari and **A.K. Misra**, Modeling the virus dynamics in computer network with SVEIR model and nonlinear incident rate, *Journal of Applied Mathematics and Computing*, 54(1-2) (2017) 485-509, **DOI 10.1007/s12190-016-1020-0**. (Springer, I.F. = 0.87, No. of citations = 22).
72. **A.K. Misra** and Amita Tripathi, A stochastic model for making artificial rain using aerosols, *Physica – A*, 505 (2018) 1113 – 1126, **DOI 10.1016/j.physa.2018.04.054** (I.F. = 2.500, No. of citations = 1).
73. Maitri Verma and **A.K. Misra**, Effects of elevated carbon dioxide and temperature on crop yield: a modeling study, *Journal of Applied Mathematics and Computing*, 58(1-2) (2018) 503-526, **DOI 10.1007/s12190-017-1154-8** (Springer, I.F. = 0.87, No. of citations = 0).
74. Maitri Verma and **A.K. Misra**, Optimal control of anthropogenic carbon dioxide emissions through technological options: a modeling study, *Computational and Applied Mathematics*, 37(1) (2018) 605–626, **DOI 10.1007/s40314-016-0364-2** (Springer, I.F. = 1.260, No. of citations = 2).
75. P.K. Tiwari, I. M. Bulai, F. Bona, E. Venturino and **A.K. Misra**, Human population effects on the Ulsoor lake fish survival, *Journal of Biological Systems*, 26(4) (2018) 1-30, **DOI 10.1142/S0218339018500274** (World Scientific, I.F. = 0.839, No. of citations = 1).
76. Kusum Lata, **A.K. Misra** and J.B. Shukla, Modeling the effect of deforestation caused by human population pressure on wildlife species, *Nonlinear Analysis: Modelling and Control*, 23(3) (2018) 303–320, **DOI 10.15388/NA.2018.3.2** (Vilnius University Institute of Mathematics and Informatics, I.F. = 2.339, No. of citations = 2).
77. **A.K. Misra** and Rajanish Kumar Rai, Impacts of TV and radio advertisements on the dynamics of an infectious disease: A modeling study, *Mathematical Methods in the Applied Sciences*, 42(4) (2018) 1262-1282, **DOI 10.1002/mma.5438** (I.F.=1.533, No. of citations = 0).
78. **A.K. Misra**, Rajanish Kumar Rai and Y.Takeuchi, Modeling the control of infectious diseases: effects of TV and social media advertisements, *Mathematical Biosciences and Engineering*, 15(6) (2018) 1315 – 1345, **DOI 10.3934/mbe.2018061**. (I.F.=1.313, No. of citations = 2).

79. **A.K. Misra** and Rajanish Kumar Rai, A mathematical model for the control of infectious diseases: Effects of TV and radio advertisements, *International Journal of Bifurcation and Chaos*, 28(3) (2018) 1850037(27pages), DOI **10.1142/S0218127418500372** (World Scientific, I.F. = 2.145, No. of citations = 2).
80. **A.K. Misra**, Rajanish Kumar Rai and Y. Takeuchi, Modeling the effect of time delay in budget allocation to control an epidemic through awareness, *International Journal of Biomathematics*, 11(2) (2108) 1850027(20 pages), DOI **10.1142/S1793524518500274** (World Scientific, I.F. = 0.846, No. of citations = 6).
81. Maitri Verma and **A.K. Misra**, Modeling the effect of prey refuge on a ratio-dependent predator-prey system with the Allee effect, *Bulletin of Mathematical Biology*, 80(3) (2018) 626-656, DOI **10.1007/s11538-018-0394-6** (Springer, I.F. = 1.643, No. of citations = 4).
82. **A.K. Misra** and Amita Tripathi, Stochastic stability of aerosols–stimulated rainfall model, *Physica –A*, 527 (2019) 121337(15pages), DOI **10.1016/j.physa.2019.121337**. (I.F.=2.500, No. of citations = 0).
83. P.K. Tiwari, S. Samanta, J. D. Ferreira, **A.K Misra**, A mathematical model for the effects of nitrogen and phosphorous on algal blooms, *International journal of bifurcation and chaos*, 2019 (Accepted), (I.F.=2.145).
84. P.K. Tiwari, S. Samanta, F. Baana, E. Venturino and **A.K. Misra**, The time delays influence on the dynamical complexity of algal blooms in the presence of bacteria, *Ecological complexity*, 39 (2019) 100769(18pages), DOI- **10.1016/j.ecocom.2019.100769** (I.F.=1.713).
85. Rajanish Kumar Rai, **A.K. Misra** and Y.Takeuchi, Modeling the impact of sanitation and awareness on the spread of infectious diseases, *Mathematical Biosciences and Engineering*, 16(2) (2019) 667-700, DOI **10.3934/mbe.2019032** (I.F. =1.313, No. of citations = 0).
86. Kusum Lata, S.N. Mishra, A.K. Misra, An optimal control problem for carrier dependent diseases, *Biosystems*, (2019), DOI **10.1016/j.biosystems.2019.104039** (I.F. = 1.629, No. of citations=0).
87. **A.K. Misra**, Navneet Jha, Rahul Patel, Modeling the effect of insects and insecticides on agricultural crops with NSFD method, *Journal of Applied Mathematics and computing*, (2019), (Accepted).
88. Kusum Lata, A.K. Misra, The influence of forestry resources on rainfall: a deterministic and stochastic model, *Applied Mathematical Modelling* (Accepted).
89. A. K. Misra, R. K. Singh, P. K. Tiwari, S. Khajanchi, Yun Kang, Dynamics of algae blooming: effects of budget allocation and time delay, *Nonlinear Dynamics* (Accepted).

#### **Papers Communicated (In review/revision)**

1. Modeling the effects of industrialization on the dynamics of atmospheric carbon dioxide, **A.K. Misra** and Maitri Verma, *Japan Journal of Industrial and Applied Mathematics*. (Under Review)

2. A mathematical model for the effects of nitrogen and phosphorus on algal blooms, P.K. Tiwari, Sudip Samanta, Jocirei Dias Ferreira and **A.K. Misra**, International Journal of Bifurcation and Chaos. (Under Review)
3. Modeling the dynamics of infectious diseases in presence of vaccination and awareness, **A.K. Misra**, Rajanish Kumar Rai and J. B. Shukla, Mathematical Biosciences (Under Review)
4. Combating Unemployment through Skill Development: A Mathematical Study, **A.K. Misra**, Pushkar Kumar Singh and A.K.Singh, Nonlinear Analysis: Modelling and Control. (Under Review).

### **Papers Under Preparation/nearly ready for Communication**

1. Modeling the role of conferences and journals on academic growth (**Single Author**)
2. Modeling the emergence of third political party and its effects on political system (**Single Author**).
3. An optimal control model for cloud seeding in deterministic and stochastic environment (with Amita Tripathi)
4. Modeling the effect of blood transfusion on the spread of HIV (with Maitri Verma Amit Huppert and J. B. Shukla)
5. Modeling the effect of external efforts to re – store the quality of lakes (with PK Tiwari and Ezio Venturino)
6. A model for aquatic bacteria subject to viral infection (with Kusum Lata and Ezio Venturino)
7. Modeling the influence of TV advertisements on water borne diseases like Cholera (with Kusum Lata and Y. Takeuchi)
8. Modeling the effect of logistically growing awareness programs on the spread of infectious diseases with isolation (with Rajanish Rai, J Cui and J. B. Shukla).
9. Modelling the impact of media and interpersonal communication on the dynamics of HIV/AIDS in India, (with Anupama Sharma).

### **PAPERS PRESENTED/ INVITED TALKS IN CONFERENCES**

1. Delivered invited lecture in a National conference on Modeling, Analysis and Simulation 2019 organized by Indian School of mines (IIT) Dhanbad (December 16-18, 2019).
2. Delivered invited lecture in an International conference on 85<sup>th</sup> Annual conference on Indian Mathematical Society 2019 organized by Indian Institute of Technology Kharagpur (November 22-25, 2019).
3. Delivered invited lecture in an International conference on 7<sup>th</sup> India Biodiversity Meet 2019 organized by Agricultural and Ecological Research Unit, Indian Statistical Institute, Kolkata (November 19 – 21, 2019).
4. Delivered invited lecture in TQIP program at KNIT Sultanpur during 18<sup>th</sup> -19<sup>th</sup> July 2019.
5. Delivered invited lectures in 6<sup>th</sup> International conference on recent advances in pure and applied mathematics (ICRAPAM) 2019.
6. Delivered invited lectures National Conference on Recent Advances in Mathematics and Scientific Computing (RAMSC - 19) during 5 – 6 April, 2019.
7. Chaired the session at 34<sup>th</sup> annual national conference of the mathematical society –Banaras Hindu University on Emerging trends in combinatorics and its applications during February, 22-23, 2019.
8. Delivered invited lectures in a National conference on Mathematical and theoretical biology (NCMTB 2018) at department of mathematics, Jadavpur University, Kolkata during Mar. 22-23, 2018.
9. Delivered invited lectures in an International conference on Mathematical analysis and application in modeling (ICMAAM 2018) on 10<sup>th</sup> Jan, 2018.

10. Delivered invited lectures in a National conference on Mathematical science and development at department of mathematics, Dr. Bhimrao Ambedkar University, Agra during Dec. 22-24, 2018.
11. Delivered invited lectures in a National workshop on Mathematical modeling and numerical computation, LNMIIT at Jaipur during Dec. 08-10, 2018
12. Delivered invited lectures in a National conference on Fractional conference, special function and their application in computer science at department of mathematics, TDPG College during Nov. 10 – 12, 2018.
13. Delivered invited lectures in a National workshop on Science fare creating awareness, interest, motivation in science and mathematics for school students and teachers at department of mathematics, TDPG College during Nov. 10 – 13, 2018.
14. Delivered invited lectures in 84<sup>th</sup> annual conference of Indian Mathematical Society at SMVDU during Nov. 27-30, 2018.
15. Delivered invited lectures in a National workshop on Analysis and its Applications at IEST, Shibpur, Kolkata during Nov. 18 – 23, 2017.
16. Delivered invited lectures in Inspire program organized at Prayag Institute of Technology and Management Allahabad during Nov. 01 – 05, 2017
17. Delivered an invited talk in China-India-Japan-Korea (CIJK) Colloquium cum Conference at Indian Institute of Technology Kanpur during August 23 – 26, 2017.
18. Delivered lectures in a workshop on Analysis and its Applications for Engineers and scientists organized by Department of Mathematical Sciences, IIT(BHU), Varanasi during July 03 – 08, 2017
19. Delivered lectures in Advanced Numerical and Analytical Methods for Engineers and scientists (NAMES) organized by Department of Mathematical Sciences, IIT(BHU), Varanasi during January 12 – 18, 2017.
20. Delivered an invited talk in National Conference at Agricultural & Ecological Research Unit, ISI, Kolkata and Government College of Engineering and Textile Technology, Berhampore during October 24 – 27, 2016.
21. Delivered an invited talk in National Conference on Recent Advances in Mathematics for Engineers held at Amity University Lucknow from 29<sup>th</sup> - 30<sup>th</sup> September, 2016
22. Delivered an invited lecture in International Conference on Mathematical Modelling, Differential Equations, Scientific Computing & Applications held at IIT Kanpur from 27<sup>th</sup> March, 2016 to 30<sup>th</sup> March, 2016.
23. Delivered a lecture in International conference 3<sup>rd</sup> India Biodiversity Meet 2015 organized by Agricultural and Ecological Research Unit, Indian Statistical Institute, Kolkata (November 16 – 18, 2015).
24. Delivered an invited lecture in a one day National Seminar on Mathematical Modelling and its Applications organized by Department of Mathematics, Amity School of Applied Sciences (ASAS), Amity University Uttar Pradesh, Lucknow campus on 22<sup>nd</sup> September 2015.
25. Delivered an invited lecture in an International Conference on Delivered an invited lecture in a one day workshop organized by Department of Mathematics, BITS Pilani, Pilani Campus on 4<sup>th</sup> April 2015
26. Delivered an invited lecture in an International Conference on Mathematical and Computational Biology will be held at IIT Kanpur under the National Network for Mathematical and Computational Biology (28<sup>th</sup> Feb. to 3<sup>rd</sup> Mar, 2015)
27. Delivered an invited lecture in the workshop organised by Raj Kumar Goel Institute of Technology, Ghaziabad under the NNMCB Programme (21<sup>st</sup> Feb, 2015)
28. Delivered a lecture in International conference India Biodiversity Meet 2014 organized by Agricultural and Ecological Research Unit, Indian Statistical Institute, Kolkata (November 21-23, 2014)
29. Delivered an invited talk in National Conference on Mathematical and Theoretical Biology at Jadavpur University, Kolkata (20<sup>th</sup> Feb. 2014 – 21<sup>st</sup> Feb. 2014).

30. Delivered an invited talk in International Conference on Mathematical Modeling & Computer Simulation with Applications at IIT Kanpur (31<sup>st</sup> Dec., 2013 – 02<sup>nd</sup> Jan., 2014)
31. Delivered a lecture in National Conference on Mathematics- 2013 at University of Lucknow, Lucknow (29 Nov- 1 Dec, 2013)
32. Delivered a lecture in Advanced Workshop on mathematical Epidemiology and Differential Equations at IIT Patna (8-13, July, 2013).
33. Delivered invited talk in International Conference on Mathematical Modelling and Numerical Simulations at BBU, Lucknow (1-3, July, 2013)
34. Delivered lectures on MatLab in a training program at Chitrkoot.
35. Delivered a lecture on International Biodiversity Meet-2013 held at ISI Kolkata (14-16, Mar, 2013)
36. Delivered an invited talk in Biomathematics Symposia in the IMS conference organized by Banaras Hindu University on 23<sup>rd</sup> January, 2013.
37. Delivered an invited talk on P-use in agriculture in a workshop organized SCON in IARI Delhi on 17<sup>th</sup> and 18<sup>th</sup> Jan, 2013.
38. Delivered an invited talk on Algal bloom in the National Conference organized by Lucknow University from 02<sup>nd</sup> February to 04<sup>th</sup> February, 2012.
39. Delivered an invited talk on Ecological Modeling in the National Conference organized by ISMMACS at BGI Kanpur from 07<sup>th</sup> July to 09<sup>th</sup> July, 2011.
40. Mathematical Modeling of Unemployment (Invited Talk): 11-th international conference (CONIAPS-XI) organized at the Institute of Interdisciplinary Studies, University of Allahabad, Allahabad during February 20 – 22, 2010 on Convergence in Science and Technology.
41. Delivered invited lectures in National workshop (15-19, December 2009) on Mathematical Modeling organized by Centre for Mathematical Sciences, Banasthali University, Rajasthan.
42. Delivered many invited lectures in basic and advanced training programs conducted by Department of Science and Technology for graduate students in Kanpur and BHU.
43. Artificial rain: Role of aerosols (Invited talk). National Conference on Mathematical Modelling and Simulation. January 9<sup>th</sup> -11<sup>th</sup>, 2009, at Gwalior, jointly organized by ABV, IITM and Jiwaji University, Gwalior.
44. Eutrophication and its effects (Invited Talk), National conference on scientific and legal challenges of global warming, Feb. 25, 26, 2008, BND College, Kanpur, U.P.
45. Mathematical modeling and analysis of the depletion of dissolved oxygen in eutrophied water bodies affected by organic pollutants, J.B. Shukla, **A.K. Misra** and Peeyush Chandra, Symposium on Recent Advances in Mathematical Sciences, Feb. 16 – 18, 2007, IIT Kanpur, U.P..
46. Mathematical modeling and analysis of eutrophication of water bodies caused by nutrients and its control, **A.K. Misra**, International Conference on Mathematical Modeling and Computer Simulation, Dec. 12 – 15, 2006, LNMIIT Jaipur, INDIA.
47. Modeling the combined effect of water pollution and eutrophication on dissolved oxygen in a water body, **A.K. Misra**, Peeyush Chandra and J.B. Shukla, Symposium on Recent Developments in Biomathematics, March 14, 2005, IIT Roorkee.
48. Modeling the depletion of dissolved oxygen in a water body due to organic pollutants and their effect on survival of species, J.B. Shukla, **A.K. Misra** and Peeyush Chandra, International Conference on Mathematical Biology, Feb. 19-21, 2004, IIT Kanpur
49. Nonlinear modelling of Eutrophication of a water body, J.B.Shukla and **A. K. Misra**, International Symposium on Nonlinear Analysis and Applications, Jan. 2-4, 2003, Science City, Kolkata.
50. Modelling the depletion of dissolved oxygen in a water body due to discharge of organic pollutants **A. K. Misra** and J.B.Shukla, Conference on Mathematical Modelling and Computer Simulation, Nov. 14-15, 2002, NAL, Bangalore.

## **Reviewer in national/International Journals**

- (i) J. Math. Analysis and Application, Elsevier.
- (ii) Ecological Modeling, Elsevier
- (iii) Bulletin of Mathematical Biology, Springer.
- (iv) Modelling Earth Systems and Environment, Springer
- (v) International Journal of Biomathematics, World Scientific.
- (vi) J. Biological Systems, World Scientific.
- (vii) Nonlinear Analysis: Real World applications, Elsevier.
- (viii) Physica-A, Elsevier.
- (ix) Ecological Complexity, Elsevier.
- (x) Journal of Applied Mathematics and Computing, Springer.
- (xi) Applied Mathematics and Computation, Elsevier.
- (xii) Chaos, Solitons and Fractals, Elsevier.
- (xiii) Mitigation and adaptation strategy for global change, Springer.
- (xiv) Theory in Bioscience, Springer.
- (xv) Water Resources Management, Springer.
- (xvi) Differential Equations and Dynamical Systems, Springer.
- (xvii) Nonlinear Dynamics, Springer.
- (xviii) Mitigation and adaptation strategy for global change, Springer
- (xix) RACSAM - Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas, Springer.
- (xx) Hydrobiologia, Springer
- (xxi) Proc. National Academy of Sciences, India, Springer.
- (xxii) Desalination and Water Treatment, Taylor & Francis.
- (xxiii) Natural Resource Modeling, Willey Blackwell.
- (xxiv) Abstracts and Applied Analysis, Hindawi.
- (xxv) Discrete Dynamics in Nature and Society, Hindawi.
- (xxvi) Nonlinear Analysis: Modelling and Control.
- (xxvii) Journal of Medical Research and Development.
- (xxviii) Journal of Banaras Mathematical Society, BHU, India.
- (xxix) Journal of International Academy of Physical Sciences.
- (xxx) Ganita, Lucknow University.
- (xxxi) Environment Development and Sustainability, Springer.

## **MEMBERSHIP OF PROFESSIONAL SOCIETIES**

- (i) Member, Indian Society of Nonlinear Analysts, 2002-03
- (ii) Life Member, Indian Academy of Mathematical Modeling and Simulation (IAMMS)
- (iii) Executive Council Member IAMMS.
- (iv) Life Member, Banaras Mathematical Society, BHU, Varanasi, INDIA.
- (v) Life Member, National Academy of Sciences, Allahabad, INDIA.
- (vi) Life Member, International Academy of Physical Sciences, Allahabad.
- (vii) Adjunct Scientist in Bhabha International Institute of Fundamental Research and Development.
- (viii) Life Member, Bulletin of Calcutta Mathematical Society.
- (ix) Life Member, Indian Mathematical Society.
- (x) Life Member, Biomathematical Society of India.
- (xi) Life Member, Ganita, Lucknow University.
- (xii) Life Member, Indian Science Congress Association.

## **SUMMER/WINTER SCHOOLS ATTENDED**

- (i) Orientation Program Nov. 12 – Dec 08, 2003, Allahabad University Allahabad.
- (ii) Refresher Course on “Linear Algebra and its Applications” Jan. 20 – Feb. 09, 2005, Allahabad University Allahabad.
- (iii) Refresher Course on “Women Studies” Nov. 08 – Nov 28, 2006, Lucknow University Lucknow.
- (iv) Refresher Course on “Analysis and its Applications” Feb. 15 – March 07, 2007, Allahabad University Allahabad.
- (v) UNESCO Regional Training Programme on “Mathematical Modelling of Fluid Flows, Diffusion and Environmental Pollution” March 12 – 24, 2001, IIT Kanpur.

#### **EXTRA-CURRICULAR / CO-CURRICULAR ACTIVITIES**

- (i) Student Representative, Department Post Graduate Committee (DPGC), 1993-94, Department of Mathematics, IIT Kanpur.
- (ii) U.G. Secretary STAMATICS, 1993-94, IIT Kanpur.
- (iii) President, STAMATICS, 1995 – 1996, IIT Kanpur.
- (iv) Held various posts in Academics, Administration, Cultural and Research activities in Brahmanand College Kanpur.
- (v) Warden, Bhabha Hostel, BHU, Varanasi.
- (vi) Participated in various capacities in Departmental Activities at BHU.
- (vii) Subject Expert for Mathematics in PGT and TGT, Many Times,
- (viii) Administrative warden, Bhabha Hostel, BHU Varanasi.

#### **NAMES AND ADDRESSES OF REFEREES**

1. Professor J.B. Shukla  
BIT, BIIFR&D, Bhabha Group of Institutions,  
Kanpur-209 204, U.P., India
2. Prof. Prawal Sinha  
Department of Mathematics and Statistics,  
IIT Kanpur, U.P. India, 208016.
3. Dr. Deena Nath Singh  
Retd. Principal,  
D.A.V. P.G. College, Varanasi,  
Varanasi, Uttar Pradesh.

(A. K. Misra)

