

BIO-DATA

1. Name : **Dr. O.P. Misra**
2. D.O.B : **09/05/1958**
3. Qualifications : M.Sc. (From **Allahabad University**),
Ph.D. (From **I.I.T., Kanpur**)
4. Permanent Address : House No. 322K , Rajender Nagar West,
P.O.-Gorakh Nath Mandir, Gorakhpur.
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5. Designation : **Professor** (Retired)
6. Tenure of Professorship: From 27-7-2006 to 31-05-2023
7. Institute/
Organization : **School of Mathematics and Allied Sciences,**
Jiwaji University, Gwalior (M.P.)
8. Research Area : **Mathematical Modelling in Ecotoxicology,**
Mathematical Modelling in Population and
Community Ecology, Mathematical Modelling
of Infectious and Communicable Diseases.
9. Visits Abroad : **USA, Italy, Thailand**
 - 1 Visited International Center for Theoretical Physics, Trieste, Italy for three weeks in 1990 to participate in the Third Autumn Course on Mathematical Ecology.
 - 2 Visited International Center for Theoretical Physics Trieste, Italy for three weeks in 1992 to attend Second Autumn Workshop on Mathematical Ecology.
 - 3 Visited College of Natural Resources, University of California, Berkeley U.S.A in 1992-93 for six months as a visiting scholar under BOYSCAST scheme of D.S.T., New Delhi.
 - 4 Visited Rajamangala University of Technology Thanyaburi, Thailand during December 9-13, 2012 to participate in the 15th International Conference of International Academy of Physical Sciences (CONIAPS XV).

10. Number of Research Fellowships - 01

(Boyscast Fellowship of Department of Science and Technology, New- Delhi)

11. Number of Research Papers Published in Reputed International Journals, National Journals and Proceedings – 107

1. J.B. Shukla, V.N. Pal and **O.P. Misra**, “Effects of Population and Industrialization on the Degradation of Biomass and its Regeneration by Afforestation: A Mathematical Model”, *Journal of Biomathematics*, Vol. 3 No. 1, 1988.
2. J.B. Shukla, **O.P. Misra**, S. Gakkhar and M. Agarwal, “Effects of Ecological and Environmental Gradient on the Coexistence of Interacting Species”, *Mathematical and Computer Modeling*, Vol. 11, 1988, **Elsevier**.
3. J.B. Shukla, **O.P. Misra**, M. Agrawal and A. Shukla, “Effects of Pollution and Industrial Development on the Degradation of Biomass Resource: A Mathematical Model with Reference to Doon Valley”, *Mathematical and Computer Modeling*, Vol. 11, 1988, **Elsevier**.
4. J.B. Shukla, M. Agrawal, A. Shukla and **O.P. Misra**, Environmental Effects on Marine Ecosystem: A Mathematical Model, *Proceedings of Interdisciplinary Conference on Natural Resource Modelling and Analysis*, Sep. 29 – Oct. 1, 1988, Halifax, Nova Scotia, Canada.
5. J.B. Shukla, H.I. Freedman, V.N. Pal, **O.P. Misra**, M. Agrawal and A. Shukla, Degradation and Subsequent Regeneration of a Forestry Resource: A Mathematical Model, *Ecological Modelling*, Vol. 44, 1989, **Elsevier**.
6. **O.P. Misra** and V.P. Saxena, Effects of Environmental Pollution on the Growth and Existence of Biological Populations: Modelling and Stability Analysis, *Indian Journal of Pure and Applied Mathematics*, Vol. 22, No. 10, 1991.
7. V.P. Saxena, **O.P. Misra**, Praveen M. Saxena and A. Shrivastava, A Finite Element Approach to the Problems of Dispersion of CO from an Area Source with Variable Reaction Rate, *Asian Journal of Experimental Sciences*, Vol. 6, No. 1 & 2, 1992.
8. V.P. Saxena, A. Juneja and **O.P. Misra**, Analysis of SIR Epidemic Model in Heterogeneous Population, *Journal of Biological Systems*, Vol. 1, No. 1, 1993, **World Scientific**.
9. **O.P. Misra**, V.P. Saxena and Harendra Singh, Effects of the Dynamics of Parasite Population Growth and Active Immunity on the Growth of Infection: A Model, *Proceedings of National Academy of Sciences, India, Sec. A*, Vol. 63, Part II, 1993.
10. V.P. Saxena, **O.P. Misra** and A. Shrivastava, Effects of Variable Diffusivity and Reaction Rate on the Dispersion of Air Pollutant from an Area Source, *Proceedings of the Second Annual Conference of Indian Society of Industrial and Applied Mathematics*, February 23-25, 1994, Madras, India.

11. **O.P. Misra** and Virendra K. Shrivastava, Long Term Responses of E-Vaginatium to Climate Change: A Mathematical Model, *Current Trends in Biomedical Engineering*, Eds. S. Radha Krishnan and M. Ramasubba Reddy, Allied Publishers, 1996.
12. **O.P. Misra** and H.P. S. Chauhan, Dynamics of the Spread of Communicable Diseases in Age Structured Population: A Mathematical Model, *Advances in Biomechanics*, ed. K.R. Pardasani, 1998.
13. Poonam Sinha, **O.P. Misra**, and V.P. Saxena, Mathematical Study of a Three Species Prey-Predator System in a Three Patch Habitat, *Advances in Biomechanics*, ed. K.R.Pardasani, 1998.
14. K.K. Sharma, R.Jain, and **O.P. Misra**, Stability Analysis of the Effect of Poaching on a Three Species Interacting System with Mutualism and Competition, *Advances in Biomechanics*, ed. K.R.Pardasani, 1998.
15. V.P. Saxena, **O.P. Misra** and P.Sinha, On the Stability of Egg-Eating Predator – Prey system with Age Structured Predator Population, *Indian Journal of Pure & Applied Mathematics* 29(9), 1998.
16. **O.P. Misra** and B.P.S. Jadon, Stability of System of Two Competing Species with Convective and Dispersive Migration in a Heterogeneous Habitat, *Proceedings of National Academy of Sciences*, 69 (A), II, 1999.
17. **O.P. Misra**, B.P.S. Jadon and A.K. Saxena, Mathematical Study of the Effects of Chemical Transformation of Toxicants on Single Species Population: A Qualitative Approach, *Proceedings of National Academy of Sciences*, 70(A), III, 2000.
18. **O.P. Misra** and H.P.S. Chauhan, A SIRS Mathematical Model with Variable Susceptibility for Two Groups of Population, *Applications and Teaching of Mathematics for Engineers and Scientists*, Allied Publishers Pvt. Limited, New Delhi, 2002.
19. R.Jain, **O.P. Misra** and K.K. Sharma, Stability Analysis of a Resource Based Competing Species System, *Indian Journal of Pure and Applied Mathematics*, 33(11), 2002.
20. **O.P. Misra**, Modelling Exploitation and Conservation of a Forestry Resource with Size-Specific Harvesting under Pollution Stress, *Proceedings of the Mathematical Society*, B.H.U., Vol. 18, 2002.
21. **O.P. Misra**, S.K.S. Rathore and Y.N. Meitei, A Mathematical Model for the Survival or Extinction of Resource Dependent Species under Pollution Stress and Industrialization Pressure, *Proceedings of the Mathematical Society*, B.H.U., Vol. 19, 2003.
22. **O.P. Misra** and Y.N. Meitei, Modelling Combined Effects of Acid and Metal on the Survival of Resource-Based Aquatic Population, *Proceedings of the Mathematical Society*, B.H.U., Vol. 20, 2004.

23. **O.P. Misra**, Poonam Sinha and S.K.S. Kushwah, Mathematical Study of the Effect of Toxicant on a Prey-Predator Species System in a Two-Patch Habitat, *Proceedings of the Mathematical Society, B.H.U.*, Vol. 20, 2004.
24. **O.P. Misra**, B.P.S. Jadon and Y.N. Meitei, Model for the Effect of Degrading Habitat on the Existence of Resource-Based Single Species System, *Differential Equations and Dynamical Systems*, Ed.-D.Bahuguna, Narosa Publishing House, New Delhi, 2005.
25. **O.P. Misra** and Poonam Sinha, Effect of a Diffusive Predator Species on the Dynamics of Two Species-System with Mutualistic Interaction: A Model, *Proceedings of the Mathematical Society, B.H.U.*, Vol. 21, 2005.
26. **O.P. Misra**, Y.N. Meitei, V.K. Chaturvedi and S.K.S. Rathore, Effect of Age – Based Vaccination Policy on the Dynamics of Delay Epidemic Models, *Mathematical Biology Recent Trends*, Eds. P. Chandra & B.V. Rathish Kumar, Anamaya Publishers, New Delhi, 2006.
27. **O.P.Misra**, P.Sinha, and S.K.S. Rathore, Effect of Air Pollution on the Growth Dynamics of Plant–Herbivore System: A Mathematical Model, *Research Hunt*, Vol. 1, Issue-1, 2006.
28. **O.P.Misra** and P.Sinha, Effect of Pollution on the Photosynthate Partitioning during Plant Growth: A three Compartment Model, *Research Hunt*, Vol. 2 Issue 2., 2007.
29. R. Vishnoi and **O.P.Misra**, Combined Effect of a Toxicant and an Infectious Disease on Existence of a Fishery Resource undergoing Age specific Harvesting, *GAMS Journal of Mathematical Biosciences*, Vol. 3, No.1, 2007.
30. **O.P.Misra**, P.Sinha and S.K.S.Rathore, Effect of Polluted Soil on the Growth Dynamics of Plant-Herbivore System: A Mathematical Model, *Proc. Nat. Acad. Sci. India*, 78(A), II, 2008.
31. P.Sinha, **O.P.Misra** and V.P.Saxena, Stability Analysis of a Prey-Predator Model Incorporating Age Based Predation, *GANITA*, 2008.
32. S.Sinha, **O.P.Misra** and J.Dhar , Study of a Prey-Predator Dynamics under the Simultaneous Effect of Toxicant and Disease, *The J. Nonlinear Sci. Appl.*, Vol. 1, No. 2, 2008.
33. Swati Khare, **O.P. Misra** and J. Dhar, Effect of Soil Pollutant on the Plant-Herbivore Interacting System Incorporating Nutrient Cycling: A Mathematical Model, *Journal of Scientific Research*, Vol. 53, 2009.
34. **O.P.Misra** and D.K.Mishra, Modelling the Effect of Booster Vaccination on the Transmission Dynamics of Diseases that Spread by Droplet Infection, *Nonlinear Analysis: Hybrid Systems*, Vol. 3, 2009, **Elsevier**.
35. Swati Khare, **O.P.Misra** and Preety Kalra, Effects of Toxicant on the Existence Single Species System: A Model, *Proceedings of the Mathematical Society, B.H.U.*, Vol. 25, 2009.

36. S.Sinha, **O.P.Misra** and J.Dhar, A Two Species Competition Model under the Simultaneous effect of Toxicant and Disease, *Nonlinear Analysis: Real World Applications*, Vol. 11, 2010, **Elsevier**.
37. Swati Khare, **O.P. Misra** and J. Dhar, Dynamical Behavior of a Plant-Herbivore System with Nutrient Cycling in a Polluted Habitat, *Applied Mathematical Sciences*, Vol. 4, No.15, 2010.
38. Sudipa Sinha, **O.P. Misra** and J. Dhar, Modelling a Predator-Prey System with Infected Prey in Polluted Environment, *Applied Mathematical Modelling*, Vol. 34, 2010, **Elsevier**.
39. Swati Khare, **O.P. Misra** and J. Dhar, Role of Toxin Producing Phytoplankton on a Plankton Ecosystem, *Nonlinear Analysis: Hybrid Systems*, Vol.4, 2010, **Elsevier**.
40. **O.P.Misra**, D.K.Mishra and H.P.S.Chauhan, Transmission of Infectious Diseases by Droplet Infection and their Control by Age Specific Immunization: A Delay Model, *Journal of Scientific Research*, B.H.U., Varanasi, Vol. 54, 2010
41. **O.P.Misra** and Anita Chaturvedi, Modelling Effect of Eutrophication on the Survival of Fish Population Incorporating Nutrient Recycling, to appear in the *Journal of International Academy of Physical Sciences*, Vol. 14 (2010).
42. **O.P. Misra** and Parmod Kushwah, Effect of Exotic Population on a Resource Based Native Population: A Model, *Proceedings of the Mathematical Society*, B.H.U., Vol. 26, 2010.
43. **O.P.Misra** and Anita Chaturvedi, Combined Effects of Acid and Metal on Resource Based Interacting Aquatic Species System to appear in *The Journal Of The Indian Academy Of Mathematics*, Vol. 33 No.1 (2011).
44. Swati Khare, **O.P.Misra** and J. Dhar, Effect of Environmental Pollutant on a Detritus Prey-Predator System, *Bulletin of the Allahabad Mathematical Society*, Vol. 26, part 1, 2011.
45. Swati Khare, **O.P. Misra**, Chhatrapal Singh and J.Dhar, Role of Delay on Planktonic Ecosystem in the Presence of a Toxic Producing Phytoplankton, *International Journal of Differential Equations*, Vol. 2011, Hindawi.
46. **O.P.Misra** and Preety Kalra, The Study of Increasing Environmental Temperature on the Dynamical Behaviour of a Prey-Predator System: A Model, *International journal of Engineering and Natural Sciences*, Vol. 5, No. 4, 2011.
47. **O.P.Misra**, Preety Kalra, S.K.S. Rathore and P.Sinha, Effect of Increasing Temperature due to Depletion of Ozone Layer Caused by CFC on the Dynamics of two Competing Populations: A Model, *Journal of Applied Mathematics and Computing*, Vol. 38, 2012, **Springer**.

48. S. Chauhan and **O.P. Misra**, Modeling and Analysis of a Single Species Population with Viral Infection in Polluted Environment, *Applied Mathematics, Scientific Research Publication*, Vol. 3, 2012.
49. S. Sinha and **O.P. Misra**, Modeling a Plant-Herbivore System with Simultaneous Effect of Disease and Toxicant, *VIVECHAN International Journal of Research*, Vol. 3, 2012.
50. **O.P.Misra** and Dinesh Kumar Mishra, Simultaneous Effects of Control Measures on the Transmission Dynamics of Chikungunya Disease, *Applied Mathematics (Scientific and Academic Publishing)*, Vol. 2, No. 5, 2012.
51. **O.P.Misra**, Chhatrapal Singh Sikawar and Poonam Sinha, Modelling the Effects of Competing Toxin Producing Phytoplankton on a Zooplankton Population: Role of Holling type-II functional Response with Time-Lag, *American Journal of Computational and Applied Mathematics*, Vol.2, No.5, 2012.
52. **O.P.Misra**, Poonam Sinha and Chhatrapal Singh Sikarwar, Effect of Time Delay on the Stability of a Phytoplankton-Toxic Phytoplankton-Zooplankton Interacting Species System, *International Journal of Physical, Chemical & Mathematical Sciences*, Vol. 1; No. 1, 2012.
53. **O.P.Misra**, Pramod Kushwah and Chhatrapal Singh Sikarwar, Effect of Exotic Species on a System of Native Prey-Predator Populations: A Model, *American Journal of Computational and Applied Mathematics*, 2(6), 2012.
54. **O.P.Misra** and Preety Kalra, Modelling Effect of Toxic Metal on the Individual Plant Growth: A Two Compartment Model, *American Journal of Computational and Applied Mathematics*, 2(6), 2012.
55. Anita Chaturvedi and **O.P.Misra**, Effect of Toxicant on the Dynamics of Detritus Food Chain System in an Aquatic Environment: A Model, *Corona Journal of Science and Technology*, Vol. 1, No.1, 2012.
56. **O.P.Misra** and Preety Kalra, Effect of Rising Temperature Due to Ozone Depletion on the Dynamics of a Prey-Predator Systems: A Mathematical Model, *Applications and Applied Mathematics: An International Journal*, Vol.7, No.2, 2012.
57. **O.P.Misra**, Poonam Sinha and Chhatrapal Singh, Stability and Bifurcation Analysis of a Prey-Predator Model with Age Based Predation, *Applied Mathematical Modelling*, Vol.37, 2013, **Elsevier**.
58. **O.P.Misra** and D.K.Mishra, Spread and Control of Influenza in two groups: A Model, *Applied Mathematics and Computation*, Vol. 219, 2013, **Elsevier**.
59. **O.P.Misra** and Preety Kalra, Effect of Toxic Metal on the Structural Dry weight of a Plant: A Model, *International Journal of Biomathematics*, **World Scientific**, Vol. 6, No. 5, 2013.

60. **O.P.Misra**, Pramod Kushwah and Chhatrapal Singh Sikarwar, Effect of resource based exotic goose species on native plant species competing with exotic grass: a model, *Proceedings of the National Academy of Sciences*, India Section A: Physical Sciences, Vol.83, No.4, 2013, **Springer**.
61. A. Chaturvedi, R.Gupta, **O.P.Misra**, Effects of Temperature on the Existence of Resource Based Predator-Prey System: Modelling and Stability Analysis, *International Journal of Engineering Sciences & Research Technology*, 2(8):August,2013.
62. Swati Khare, **O.P.Misra** and Joydip Dhar, "Mathematical Analysis of a Food Chain Model with and without Nutrient Recycling," *GAMS Journal of Mathematics and Mathematical Biosciences*, Vol.4, No.1, 2013.
63. Sudipa Chauhan, **O.P.Misra** and Joydip Dhar, "Stability Analysis of SIR Model with Vaccination," *American Journal of Computational and Applied Mathematics*, 4(1), 2014.
64. **O.P.Misra**, Pramod Kushwah and Chhatrapal Singh Sikarwar, Dynamical Study of Native and Exotic Competing Population: Effects of Habitat Destruction, *Ecological Complexity*, Vol.17, 2014, **Elsevier**.
65. **O.P.Misra and** Preety Kalra, "Effect of Toxic Metal on Root and Shoot Biomass of a Plant: A Mathematical Model", *Applications and Applied Mathematics: An international journal (AAM)*, Vol.9, Issue 1, 2014.
66. Sudipa Chauhan, **Om Prakash Misra**, Joydip Dhar, "Simultaneous effect of disease and toxicant on a plant population: a model", *Global Journal of Mathematical Analysis*, 2(2) (2014),73-79.
67. **O.P. Misra**, Raveendra Babu A., "A model for the effect of toxicant on a three species food-chain system with "food-limited" growth of prey population", *Global Journal of Mathematical Analysis*, Vol.2 (3) (2014),pp. 120- 145.
68. **O.P.Misra**, Poonam Sinha and Chhatrapal Singh Sikarwar, "Dynamical Study of a Prey-Predator System with a Commensal Species Competing with Prey Species: Effect of Time lag and Alternative Food Source", *Computational and Applied Mathematics*, Vol. 34, No. 1, 2015, **Springer**.
69. **O.P.Misra**, Poonam Sinha and Chhatrapal Singh Sikarwar, "Dynamics of one-prey two-predator system with square root functional response and time lag", *International Journal of Biomathematics*, Vol. 8, No.3, 2015, **World Scientific**.
70. Manisha Chaudhary, Joydip Dhar, **Om Prakash Misra**, "A Mathematical model for the conservation of forestry biomass with an alternative resource for Industrialization: A modified Leslie Gower interaction", *Modelling Earth System Environment*, 1: 43, 2015, **Springer**.
71. Raveendra Babu A., **O.P.Misra**, Chhatrapal Singh, Preety Kalra, "Model for the Dynamical Study of a Three-Species Food-Chain System under Toxicant Stress", *IJSRSET*, Vol.1, Issue 2, 2015, Online ISSN: 2394-4099.

72. **O.P.Misra**, A. Raveendra Babu, “Mathematical study of a Leslie-Gower-type tritrophic population model in a polluted environment”, *Modeling Earth Systems and Environment*, 2: 29, 2016, **Springer**.
73. **O.P.Misra**, A. Raveendra Babu, “Modelling effect of toxicant in a three-species food-chain system incorporating delay in toxicant uptake process by prey”, *Modeling Earth Systems and Environment*, 2: 77, 2016, **Springer**.
74. **O.P.Misra**, Divya Chaturvedi, “Fate of dissolved oxygen and survival of fish population in aquatic ecosystem with nutrient loading: a model”, *Modeling Earth Systems and Environment*, 2: 112, 2016, **Springer**.
75. **Om Prakash Misra** and Raveendra Babu Annavarapu, “A model for the Dynamical Study of Food-Chain System Considering Interference of Top Predator in a Polluted Environment”, *Journal of Mathematical Modeling (JMM)*, Vol.3, No.2, 2016, pp. 189-218.
76. M.Chaudhary, J.Dhar and **O.P.Misra**, “Conservation of Forestry Biomass introducing variable Taxation for Harvesting: A mathematical model”, *Biomat*, (2016), **World Scientific**.
77. **O.P.Misra**, A.R.Babu, “Modelling the Effect of Toxicant on a Three Species Food-Chain System with Predator Harvesting”, *International Journal of Applied and Computational Mathematics*, 2017 (DOI: 10.1007/s40819-017-0342-4) , **Springer**.
78. M.Chaudhary, **O.P.Misra** and J.Dhar, “Mathematical Model for the Legal and Illegal Harvesting of Forestry Population and its Conservation by Imposing Tax”, *Global Journal of Pure and Applied Mathematics*, Vol. 13, No. 1 (2017).
79. M.Chaudhary, J.Dhar and **O.P.Misra**, “Analysis of Exploitation of Forestry Biomass by Industrialization: Effect of Harvesting and Taxation”, *International Journal of Applied and Computational Mathematics*, 2017 (DOI 10.1007/s40819-017-0357-x), **Springer**.
80. **O.P.Misra**, Pramod Kushwah and Chhatrapal Singh Sikarwar, “Effect of exotic predator on a native prey-predator system with special reference to Kuno wildlife sanctuary in India:A model”, *Prajna-Journal of Pure and Applied Sciences*, 2017, vol.24-25, 47-54.
81. O.P. Sisodiya, **O.P.Misra** and J.Dhar, “Dynamics of Cholera Epidemics with Impulsive Vaccination and Disinfection”, *Mathematical Biosciences*, 2018, 298, 46-57, **Elsevier**.
82. Omprakash singh Sisodiya, **O.P.Misra**, Joydip Dhar, “Pathogen induced infection and its control by vaccination:A mathematical model for cholera disease”, *International Journal of Applied and Computational Mathematics*, (2018), **Springer**,4:74, 1-24.

83. Divya Chaturvedi and **O.P.Misra**, “Modelling impact of varying pH due to carbondioxide on the dynamics of prey-predator species system”, *Nonlinear Analysis:Real World Applications*, **Elsevier** (2018).
84. **O.P.Misra** and Premeshori Waikhom, “Transmission dynamics of Malaria with Logistic Growth of Mosquito population under conducive environment” *Journal of Recent Trends in Basic and Applied Sciences*, Published by Jiwaji University, Gwalior, (2018).
85. Anita Chaturvedi, **O. P. Misra**, G. A. Vatsala, and B.S. Babitha "Simultaneous Effects of Primary and Secondary Toxicants on the Existence of Two competing Populations in an Aquatic Ecosystem: A Mathematical Analysis." *International Journal of Innovative Science and Research Technology*, (2019).
86. M.Chaudhary, J.Dhar, **O.P.Misra** and R.S.Baghel “Spatiotemporal based predator-prey harvesting model for fishery with beddington-deangelis type functional response and tax as the control entity” *Dynamics of Continuous, Discrete and Impulsive Systems Series A: Mathematical Analysis*, 26-2(a) (2019) 113-135 Copyright c 2019 Watam Press
87. Divya Chaturvedi, **O. P. Misra**, “Simultaneous effects of the rise in temperature due to greenhouse gases and hypoxia on the dynamics of the aquatic population: a mathematical model”, *Journal of Applied Mathematics and Computing* (2020) 63:59–85 <https://doi.org/10.1007/s12190-019-01308-4>, **Springer**.
88. **O.P. Misra**, Joydip Dhar and Omprakash Singh Sisodiya, “Dynamical Study of SVIRB Epidemic Model for Water-borne Disease with Seasonal Variability”, published in the journal *DCDIS (Dynamics of Continuous, Discrete and Impulsive Systems)- Series A* 27-6(a), 351-374.
89. Mamta Barik, Sudipa Chauhan, Sumit Kumar Bhatia and **Om Prakash Misra**, “Understanding role of CTL cells and antibodies on a delayed HIV mathematical model: A dynamical analysis”, published in the journal, *Mathematics in Engineering, Science and Aerospace (MESA)* (2021).
90. Omprakash Singh Sisodiya, **O.P.Misra** and Joydip Dhar, “Modeling Effects of Impulsive Control Strategies on the Spread of Mosquito Borne Disease: Role of Latent Period”, published in the journal, *Journal of Applied Mathematics and Computing* (2021), **Springer**.
91. **O.P.Misra**, Joydip Dhar and Omprakash Singh Sisodiya, “Modeling and Analysis of the Transmission Dynamics of Mosquito Borne Disease with Environmental Temperature Fluctuation”, published in the journal, *International Journal of Modeling, Simulation and Scientific Computing (IJMSSC)* 2021, **World Scientific**.
92. **O.P.Misra** and Omprakash Singh Sisodiya, “Spread and Control of COVID-19: A Mathematical Model”, published in the journal, *International Journal of Modeling, Simulation and Scientific Computing (IJMSSC)* 2021, **World Scientific**.

93. Mamta Barik, Sudipa Chauhan, **Om Prakash Misra** and Sumit Kaur Bhatia, “Optimal Control using linear feedback control and neutralizing antibodies for an HIV model with dynamical analysis”, published in the journal, *Journal of Applied Mathematics and Computing* (2022), **Springer**.
94. Manisha Chaudhary, J. Dhar and **O.P. Misra**, “Deleterious effects of legal and illegal logging on forestry biomass using a dynamical model”, published in *AIP Conference Proceedings*, 2022.
95. **O.P. Misra**, A. Raveendra Babu, “Effect of Pollution on Ratio- Dependent Three-Species Food-Chain System: A Mathematical Approach”, published in the journal, *YMER*, 2022.
96. Divya Chaturvedi and **O.P. Misra**, “Effects of variation in salinity due to pollution on the dynamics of two competing species system in aquatic habitat”, published in the journal, *YMER*, 2022.
97. Omprakash Singh Sisodiya, **O.P. Misra** and Joydip Dhar, “Analysis of a Temperature – Dependent Model for Water Borne Disease Transmission Dynamics”, published in the journal, *International Journal of Dynamics and Control* (2023), **Springer Nature**.
98. Shiv Mangal, **O.P. Misra** and Joydip Dhar, “Fractional-order deterministic epidemic model for the spread and control of HIV/AIDS with special reference to Mexico and India”, published in the journal, *Mathematics and Computers in Simulation* (2023), **Elsevier**.
99. Mamta Barik, Sudipa Chauhan, **O.P. Misra** and Shashank Goel, “Final Epidemic Size and Optimal Control of Socio-Economic Multi-group Influenza Model”, published in the journal, *Journal of Engineering Mathematics* (2023), **Springer**.
100. Shiv Mangal, **O.P. Misra** and Joydip Dhar, “SIRS Epidemic modelling using Fractional-ordered Differential Equations: Role of Fear effect”, published in the journal, *International Journal of Biomathematics* (2023), **World Scientific**.
101. Omprakash Singh Sisodiya, **O.P. Misra** and Joydip Dhar, “Modeling the role of Seasonal Variability on the Dynamics of Mosquito-borne Diseases”, published in the journal, *The Journal of the Indian Mathematical Society* (2023).
102. Divya Chaturvedi, **O.P. Misra**, “Impact of habitat destruction and its subsequent regeneration on the dynamics of a Holling type II prey-predator interacting species system with prey refuge”, published in the journal, *International Journal of Dynamics and Control* (2023), **Springer Nature**.
103. Ratika Rastogi, **O.P. Misra** and Rajshree Mishra, “A Chebyshev polynomial approach to approximate solution of differential equations using differential evolution”, published in the journal, *Engineering Applications of Artificial Intelligence* (2023), **Elsevier**.

104. Shiv Mangal, **O.P. Misra** and Joydip Dhar, “Modelling the Effect of Vaccination in Fractional-order Epidemic Model for Infectious Disease”, published in the journal, *International Journal of Dynamics and Control* (2023), **Springer Nature**.
105. Divya Chaturvedi, **O.P. Misra**, “Modelling effects and control of soil contaminants on the dynamics of plant-herbivore species system”, published in the journal, *Results in Control and Optimization* (2024), **Elsevier**.
106. Shiv Mangal, **O.P. Misra** and Joydip Dhar, “Modelling infectious respiratory diseases considering fear effect and latent period”, published in the journal, *Results in Control and Optimization* (2024), **Elsevier**.
107. Shiv Mangal, Preeti Deolia, **O.P. Misra**, Joydip Dhar and Vijay Shankar Sharma, “Modeling Spread and Control of Multidrug-Resistant Tuberculosis in India”, published in the journal, *The European Physics Journal Plus* (2024), **Springer Nature**.

12. Number of Research Papers Presented in Conferences/ Seminars-28

1. Modeling Effects of Toxicant on Egg-Eating Predator-Prey Systems, National Research Seminar on Mathematics, March, 6-7, 1995 Govt. Science College Gwalior, India.
2. A SIRS Mathematical Model with Variable Susceptibility for Two Groups of Populations, 6th Annual Conference of Vijnana Parishad of India, Dec. 26-28, 1996, B.I.E.T, Jhansi, India.
3. Changing Habitat Niches and Survival of Populations: A Model, 7th Annual Conference of Vijnana Parishad of India, Oct. 24-26, 1997, H.B.T.I., Kanpur, India.
4. Dynamics of the Spread of Communicable Diseases in Age Structured Population: A Mathematical Model, 6th National Conference on Biomechanics, January 14 –16, 1998, M.A.C.T., Bhopal, India.
5. Effect of Degrading Habitat on the Existence of Resource Based Single Species System, National Seminar on Computer Applications with Special Reference to Numerical, Analytical Methods, Operations Research and Bio-Mathematics, Sept 18-19, 1998, Govt. Autonomous Science College, Gwalior.
6. Existence of Prey-Predator Species System under Warming Climate Due to the Emission of Green House Gases, Fourth Annual Conference of Gwalior Academy of Mathematical Sciences and Symposium on Mathematical Modelling and Computer Applications in High Altitude Physiological Problems with Special Reference to Defense, July 31, 1999, Defense R & D Establishment, Gwalior.

7. Mathematical Study of SEIR Epidemic Models in Classified Population with Immunity Dependent Variable Mean Latent Period, Third Annual conference of International Academy of Physical Sciences, Dec 17-19, 1999, University of Allahabad, Allahabad.
8. Mathematical Study of Sexually Transmitted Diseases Including AIDS in Structured and Heterogeneous Population, MOIT-MDM 2000, Jan., 14-16, 2000, Bundelkhand University, Jhansi.
9. Modelling Effect of Toxicant on Three Interacting Species in a Food Chain System, 5th Annual Conference of Gwalior Academy of Mathematical Sciences, May 21, 2000, Govt. P.G. College, Guna (M.P.)
10. Mathematical Study of Communicable Diseases with Temporary-Immunity & Migration in Heterogeneous Population, 6th Annual Conference of Gwalior Academy of Mathematical sciences, Feb, 25, 2001, Jiwaji University, Gwalior.
11. Model for the Effect of Degrading Habitat on the Persistence of Resource Based Single Species System, International Conference on Current Trends in Differential Equations and Dynamical Systems, I.I.T. Kanpur, December 15-17, 2001.
12. Modelling Exploitation and Conservation of a Forestry Resource with Size – Specific Harvesting under Pollution Stress, 18th Annual Conference of the Mathematical Society, Banaras Hindu University, Varanasi, December 29-30, 2002.
13. A Mathematical Model for the Survival or Extinction of Resource Dependent Species under Pollution Stress and Industrialization Pressure, 19th Annual Conference of the Mathematical Society, Banaras Hindu University, Varanasi, December 26-27, 2003.
14. A Model for the Effects of Primary and Secondary Toxicants on a Prey– Predator Species System Incorporating Environmental and Food Chain Modes of Exposure, International Conference on Mathematical Biology, I.I.T. Kanpur, February 19-21, 2004.
15. Effect of Age –Based Vaccination Policy on the Dynamics of Delay Epidemic Model, International Conference on Mathematical Biology, I.I.T. Kanpur, February 19-21, 2004.
16. Modelling Effects of Toxicant in a Plant- Herbivore System Incorporating Non-Linear Dose Response Relationship, 10th Annual Conference of Vijnana Parishad of India, M.A.N.I.T., Bhopal, May 17-19, 2004.
17. Mathematical Study of the Effect of Toxicant on Single Species Aquatic Population in a three Compartment Aquatic Ecosystem, 10th Annual Conference of Vijnana Parishad of India, M.A.N.I.T., Bhopal, May 17-19, 2004.

18. Stability Analysis of a Prey-Predator Model Incorporating Age-Based Predation, 10th Annual Conference of Vijnana Parishad of India, M.A.N.I.T., Bhopal, May 17-19, 2004.
19. Mathematical Study of the Effect of Toxicant on a Prey-Predator Species System in a Two Patch Habitat, 20th annual conference of the Mathematical Society, Banaras Hindu University, Varanasi, Jan.10-11, 2005.
20. Effect of a Diffusive Predator Species on the Dynamics of two Species System with Mutualistic Interaction. A Model, 21st Annual Conference of the Mathematical Society, B.H.U., Varanasi, Jan 23-24, 2006.
21. Modelling Effects of Elevated Temperature on Account of Greenhouse Gases on the Existence of two Competing Species System, International Conference on Mathematical Modelling and Computer Simulation, The LNM Institute of Information Technology, Jaipur, December 12-15, 2006.
22. Dynamical Study of Prey- Predator System under the Simultaneous Effects of Toxicant and Disease, 12th Annual Conference of Gwalior Academy of Mathematical Sciences (GAMS) and All India Symposium on Computational Biology, Maulana Azad National Institute of Technology, Bhopal, April 6-8, 2007.
23. Transmission and Control of Japanese Encephalitis: A Mathematical Model, 74th Annual Conference of Indian Mathematical Society, University of Allahabad, December 27-30, 2008.
24. Mathematical Study of SVIR Model for the Spread of Infectious Disease and its Control by Vaccination, 2nd National Conference on Computational Mathematics and its Application to Engineering and Biological System, GEC, Gwalior, 15th May, 2010.
25. Transmission And Control of Visceral Leishmaniasis (Kala-Azar): A Mathematical Model, The 15th International Conference of International Academy Physical Sciences (CONIAPS XV), Rajamangala University of Technology Thanyaburi, Thailand, December 9-13, 2012.
26. Effect of changing water pH due to Carbon dioxide on the dynamical behavior of predator-prey system with Holling type ii functional response, International Conference on New Frontiers in Mathematics, SOMAAS, Jiwaji University, Gwalior, December 11-13, 2018.
27. Role of seasonal variability on the spread of Cholera disease with control mechanism, International Conference on New Frontiers in Mathematics, SOMAAS, Jiwaji University, Gwalior, December 11-13, 2018.
28. Mathematical study of a three species system considering interference and modified Smith model under the pollution stress, International Conference on New Frontiers in Mathematics, SOMAAS, Jiwaji University, Gwalior, December 11-13, 2018.

13. Number of Ph.D. awarded under my Supervision –17

1. Mathematical Study of the Environmental Effects on Interacting Populations, B.P.S Jadon, 1999.
2. Mathematical Study of the Communicable Diseases in Heterogeneous Populations, H.P.S Chauhan, 2000.
3. Mathematical Study of the Effects of the Pollutants on Interacting Populations in Aquatic Ecosystems, Y.N. Meitei, 2006.
4. Mathematical Approach to the Study of Community Dynamics Under Environmental Stresses, S.K.S. Rathore, 2006.
5. Modelling the Simultaneous Effects of Pollution and Infectious Diseases on Populations in Terrestrial Ecosystem, Sudipa Sinha, 2009.
6. The Mathematical Study of the Transmission Dynamics of Communicable Diseases and their Control by Elimination and Vaccination Processes, D.K. Mishra, 2010.
7. Modelling Effects of Pollutants on Interacting Species Systems with Nutrient Cycling, Swati Khare, 2010
8. Effects of Water Pollution on Interacting Aquatic Populations in a Fresh water Lotic and Lentic Habitats: Modelling and Stability Analysis, Anita Chaturvedi, 2011.
9. Mathematical Study of Effects of Exotic Species on Native Biota, Pramod Kushwah, 2013.
10. A Study on the Role of Time-lags in the Stability and Bifurcation Analysis of Food-Web Models, Chhatrapal Singh Sikarwar, 2013.
11. A Mathematical Study of the Effects of Toxic Chemicals on Soil-Crop Dynamics, Preety Kalra, 2014.
12. Mathematical Study of the Effects of Toxicants on the Stability of Three-Species Food Chain Systems, Raveendra Babu A., 2016.
13. Analysis of Dynamical Models for the Exploitation and Conservation of Natural Populations, Manisha Chaudhary, 2017.
14. Modelling spread and control of Vector borne and Water borne infectious diseases: Role of Environmental factors and Seasonal Variability, Omprakash Singh Sisodiya, 2020.
15. Effects of pollution and environmental deterioration on the dynamics of interacting populations in ecosystems: Mathematical model based study, Divya Chaturvedi, 2021.

16. Modelling Role of Immunity on the Dynamics of Infectious Diseases in the Stratified Population, Mamta Barik, 2023.
17. Stability Analysis of Epidemic Models based on Integer and Fractional Ordered Differential Equations: A Comparative Study, Shiv Mangal, 2024.

14. Number of registered Ph.D. candidates under my Supervision – 04

1. Mathematical Modeling and Analysis of Inventory Problems in Dynamic Business Environment, Reeta Chauhan, 2017.
2. Development of Evolutionary and Swarm Intelligence based algorithms and their applications to Engineering Systems, Ratika Rastogi, 2017.
3. Modeling and Stability Analysis of the Effects of Invasive Species on the Dynamics of Native Interacting Species Systems, Zahid Yousuf, 2019.
4. Mathematical Modelling of Plant-Herbivore Systems: Effects of plant Diseases, Arvindra Singh, 2019.

15. Number of M.Phil. Supervised – 37

1. Mathematical Study of the Growth of Infection: Modelling and Stability Analysis, H. Singh, 1989.
2. Various Aspects of the Population Growth and its Effects on Resource: A Theoretical and Mathematical Approach, H.K. Litoria, 1990.
3. A Mathematical Study of Epidemics and Communicable Diseases: A Deterministic Approach, G.P.S. Sikarwar, 1990.
4. A Mathematical Study of the Growth of One and Two Interacting and Dispersing Species with Varying Parameters Incorporating Environmental Effects, Anita Chaturvedi, 1990.
5. A Mathematical Study of Renewable Resources (Forestry and Fishery) with Size and Age Specific Harvesting, S.K. Acharya, 1991
6. Computational Approach to the Study of Temperature Dependent Predator Prey Systems, B.P. Nawghare, 1991.
7. Mathematical Study of Air Pollution Due to Gas Diffusion, Mukesh Singh, 1992.
8. Mathematical Study of the Growth of Sedge E. Vagniatum in the Arctic, V.K. Shrivastava, 1993.
9. A Mathematical Study of the Effects of Primary & Secondary Toxicants on the Existence of one and two Interacting Species Systems, Vandana Jain, 2002.

10. Mathematical Study of Epidemic Models Incorporating Vaccination, Proportional Mixing and Maturation Delay, A.S. Yadav, 2002-2003.
11. Stability Analysis of the Models for the Transmission of HIV Infection in a Heterosexual Community, Manindra Kumar Srivastava, 2003-2004.
12. Effects of Toxicant on the Existence of Single Species and Prey- Predator Species Systems: Modelling and Stability Analysis, Swati Khare, 2003-2004.
13. Mathematical Study of the Effects of Environmental Stresses on the Existence of Interacting Species Systems, Rochana Vishnoi, 2004-2005.
14. Effects of Vaccination on the Dynamics of Seasonally Forced Epidemic Models, Akhil Kumar, 2005-06.
15. Effects of Industrialization Pressure and Pollution on the Existence of Interacting Species Systems: Modelling and Stability Analysis, Benna Bundela, 2006-07.
16. Effect of Degrading Habitat on the Existence of two Interacting Species Systems: Modelling and Stability Analysis, Shivnath C. Vishwkarma, 2006-07.
17. Modelling Effect of Toxicant on Predator-Prey Species System Inducting Harvesting and Maturation Delay in Predator Population, Pramod Kuswah, 2006-07.
18. Mathematical Study of Infectious Disease Models with Nonlinear Infection Force and Vertical Transmission, Rahila Niyazi, 2007-08.
19. Mathematical Study of Infectious Disease with Migration and Vaccination, Preeti Kakwani, 2007-08.
20. Modelling and Stability of Infectious Disease Models with Nonlinear Incidence, Vaccination and Migration, Rachna Jain, 2007-08.
21. A Mathematical Study of the Effects of Pollutants on Biological Population Incorporating Delay in Model Parameter, Milan Dixit, 2008-2009.
22. Modelling and Analysis of Swine Flu and Malaria Diseases, W. Premeshori Devi, 2008-2009.
23. Stability Analysis of Epidemic Models with Droplet Infection and Time Lag, Mamata Raipuriya, 2009-10.
24. Mathematical Study of SVIR and SEIS Models for the Transmission of Infectious Diseases, Sadhana Gupta, 2009-10.
25. Stability Analysis of Time Delay Epidemic Models for the Venereal Diseases and Diseases with Vertical Transmission, Jyoti Gupta, 2009-10.
26. The Role of Immunity in the Study of SIRS and SVIR Infectious Disease Models Incorporating the Effect of Pollutants, Priyanka Gupta, 2008-2009.

27. Mathematical Study of Swine (H1N1) and Avian (H5N1) Influenza Diseases, Shah Nawaz Ahmad Rather, December 2013.
28. Mathematical Study of SIRS Model for the Transmission of Tuberculosis by Droplet Infection in Two Dissimilar Groups, Chanda Purushwani, 2013.
29. Mathematical Study for the Transmission and Control of Visceral Leishmaniasis (Kala Azar) Considering SEIR Model for Human Population and SI model for Vector Population, Hema Purushwani, 2013.
30. Study of the Stage Structure Population Growth Mathematical Model with Pollutant Effect and Harvesting, Aarti Solanki, 2014.
31. Mathematical model based Dynamical Study of Prey-Predator System: Effect of Toxicant on Habitat Characteristics, Divya Jain, 2014.
32. Dynamical Study of a Three-Species Food-Chain System with Refuge and Harvesting, Tafaz ul Rahman Shah, 2018.
33. Dynamics of Three Species Interacting System comprising of One Prey and Two competing Predators incorporating Population and Heterogeneity, Imtiyaz Ahmad Wani, 2018.
34. SEIR Vector-borne Disease Model with Control Measures, Asif Hussain, 2019.
35. Transmission Dynamics of Influenza Disease in two groups of Human Population: A Mathematical Model, Saifur Islam Bhat, 2019.
36. Modelling the Dynamical Study of Tuberculosis Disease considering Immunity level of the Population, Sajad Ahmad Dar, 2019.
37. One Prey and two competing predators with distributed delay, Gayathri M., 2020.

16. Number of Conferences, Seminars/Webinars, Symposia and Workshops Attended - 44

1. National Research Seminar on Mathematics, Government (Autonomous) Model Science College, Gwalior, (March 6-7) 1995.
2. 6th Annual Conference of Vijnana Parishad of India, BIET, Jhansi (Dec.26-28) 1996.
3. Seventh Annual Conference of Vijnana Parishad of India H.B.T.I., Kanpur, (Oct. 24-26) 1997.
4. Sixth National Conference on Biomechanics M.A.C.T., Bhopal, (Jan. 14-16) 1998.

5. National Seminar on Computer Applications with Special Reference to Numerical, Analytical Methods Operations Research & Bio-Mathematics, Govt. Science College, Gwalior, (Sept.18-19) 1998.
6. Workshop on Industrial Mathematics & Computing, Institute of Basic Sciences, Agra, India (April 9-13) 1999.
7. 4th Annual Conference of Gwalior Academy of Mathematical Sciences And Symposium on Mathematical Modelling & Computer Applications in High Altitude Physiological Problems with Special Reference to Defence, Defence R & D Establishment Gwalior, India, (Jul.31) 1999.
8. Third Conference of the International Academy of Physical Sciences, University of Allahabad, Allahabad, (Dec. 17-19) 1999.
9. MOIT – MDM – 2000, Bundelkhand Univ., Jhansi, (Jan. 14-16) 2000.
10. National Conference on Operation research and Information Technology, Dr. B.R.Ambedakar Univ., Agra, (April 2-3) 2000.
11. 5th Annual Conference of GAMS, Govt.P.G.College, Guna (M.P.), (May 21) 2000.
12. 6th Annual Conference of GAMS, Jiwaji University, Gwalior, (Feb. 25) 2001.
13. International Conference on Current Trends in Differential Equations and Dynamical Systems, I.I.T. Kanpur, (Dec. 15-17) 2001.
14. 18th Annual Conference of Mathematical Society, B.H.U., B.H.U., Varanasi, (Dec.29-30) 2002.
15. 19th Annual Conference of Mathematical Society, B.H.U., B.H.U., Varanasi, (Dec.26-27) 2003.
16. 8th Annual Conference of GAMS, Datia, M.P., (Jan.19) 2003.
17. International Conference on Mathematical Biology, I.I.T. Kanpur, (Feb. 19-21)2004.
18. 10th Annual Conference of Vijnana Parishad of India M.A.N.I.T. Bhopal, (May 17-19) 2004.
19. 9th Annual Conference of GAMS, I.T.M., Gwalior, (Jan. 17-19) 2004.
20. 20th Annual Conference of Mathematical Society, B.H.U., B.H.U.,Varanasi, (Jan. 10-11) 2005.
21. A National Seminar on Application of Mathematics in the Field of Comp.Science, Govt. K.R.G College, Gwalior (Feb. 26-27) 2005.
22. 21st Annual Conference of the Mathematical Society, B.H.U., B.H.U.,Varanasi, (Jan. 23-24) 2006.

23. International Conference on Mathematical Modelling and Computer Simulation, the LNM Institute of Information Technology, Jaipur, (December 12-15) 2006.
24. 12th Annual Conference of Gwalior Academy of Mathematical Sciences (GAMS) and All India Symposium on Computational Biology, Maulana Azad National Institute of Technology, Bhopal, (April 6-8) 2007.
25. 74th Annual Conference of Indian Mathematical Society, University of Allahabad, December 27-30, 2008.
26. One day Colloquium on Mathematical Biology and Ecology held on February 20, 2009, Jadavpur University, Kolkata.
27. Silver Jubilee Conference of the Mathematical Society, B.H.U. (Banaras Hindu University), Varanasi, December 22-24, 2009.
28. 11th International Conference of the International Academy of Physical Sciences, University of Allahabad, Allahabad, February 20-22, 2010.
29. 2nd National Conference on Computational Mathematics and its Application to Engineering and Biological System held at GEC, Gwalior, 15th May, 2010.
30. Chaired a technical session in the conference on Special Functions and their Applications and Symposium on Computational and Biological Mathematics, Jiwaji University, Gwalior, June 21-23, 2010.
31. Chaired a technical session in the 26th Annual Conference of the Mathematical Society, Banaras Hindu University, Varanasi, November 28-29, 2010.
32. National Conference on Theoretical Biology and Biomathematics, Jadavpur University, Kolkata, December 15-16, 2010.
33. 3rd National Conference on Present Trends in Mathematics and its Applications held at G.E.C Gwalior on April 23rd, 2011.
34. National Conference on Mathematical Modelling and Computer Simulation, July 7-9th, 2011, at Bhabha Group of Institutions, Kanpur.
35. The 15th International Conference of International Academy Physical Sciences (CONIAPS XV), December 9-13, 2012, at Rajamangala University of Technology Thanyaburi, Thailand.
36. 28th Annual Conference of the Indian Mathematical Society held at B.H.U. Varanasi during January 22-25, 2013.
37. National Conference on Mathematics held during Nov. 29 – Dec. 01, 2013 at Department of Mathematics and Astronomy, University of Lucknow, Lucknow.
38. 29th Annual National Conference of the Mathematical Society, Banaras Hindu University, Varanasi, during February 3-4, 2014.

39. National Workshop on Theory and Applications of Mathematical and Computational Biology, ABV-IIITM, Gwalior, January 22-24, 2015.
40. International Conference on Mathematical Modelling and Simulation, August 29-31, 2016, Banaras Hindu University (BHU), Varanasi.
41. 33rd Annual National Conference of Mathematical Society-BHU on Recent Advances in Mathematical Modelling and Analysis held during February 16-17, 2018 at Banaras Hindu University (BHU), Varanasi, India.
42. International Conference on New Frontiers in Mathematics, SOMAAS, Jiwaji University, Gwalior, December 11-13, 2018.
43. National webinar organized by PGV College, Gwalior on the National Mathematics Day, 22 December 2020.
44. Webinar entitled “Focus on Advanced Mathematics” organized by Govt. P. G. (Excellence) college, Morena, 14 January 2021.

17. Administrative and other Positions Held:

1. Head, School of Mathematics and Allied sciences, Jiwaji University, Gwalior.
2. Dean of Administration in Bundelkhand Institute of Engineering and Technology, Jhansi, (U.P.)
3. Coordinator, S.O.S. in Jyotirvigyan, Jiwaji University, Gwalior.
4. Warden, Boys Hostel, Jiwaji University, Gwalior.
5. Warden, Boys Hostel, Bundelkhand Institute of Engineering and Technology, Jhansi (U.P.).
6. Coordinator, Control Room Exam, Jiwaji University, Gwalior.
7. Secretary, Jiwaji University Teachers Association.
8. Coordinator, Control Room Flying Squad, Jiwaji University, Gwalior (from July 2014 to 5 May 2015).
9. Coordinator, M.Sc. Tech in Industrial Mathematics with Computer Application, Jiwaji University, Gwalior.
10. Head, School of Mathematics and Allied Sciences, Jiwaji University, Gwalior.
11. Coordinator of M.Sc. (Computer Science).
12. Dean of Science Faculty, Jiwaji University, Gwalior.

13. Executive Council Member of Jiwaji University, Gwalior.

18. Publications in different capacities and authorships:

1. **Book** - Published one book as an Assistant Editor in 2002 from Allied Publishers Pvt. Ltd., New Delhi with the following Title: “**Applications and Teaching of Mathematics for Engineers and Scientists**”
2. **Journals-02** (As member of the Publication Committee)
 - a) GAMS Journal of Mathematics and Mathematical Biosciences, Vol. 1, No.1, 1997.
 - b) GAMS Journal of Mathematical Biosciences, Vol.2, No.1 and 2, 1998.
3. Contributed one Unit in the Reading Material of **IGNOU**, New Delhi in the Paper: Mathematical Modelling, in M.Sc. (Mathematics) Programme.
4. **Book** - Published one book in 2012 from LAP LAMBERT Academic Publishing, Germany with the following title: “**Population Dynamics Modelling with Nutrient Cycling & Pollutants**” Mathematical Study of Population Dynamics with Nutrient Cycling under the Stress of Pollutants, by Swati Khare, **O.P.Misra** and Joydip Dhar.

19. Number of Conferences, Webinars and Workshops Organized - 13

1. District Level Camp on Future Studies, April 16, 1992 (**as Assistant Coordinator**).
2. District Level Camp and Workshop on the Future Study of Human Population and Related Problems, March 19–20, 1994 (**as Organizing Secretary**).
3. Sixth Annual Conference of Gwalior Academy of Mathematical Sciences, Feb. 25, 2001, School of Mathematics and Allied Sciences, Jiwaji University, Gwalior (**as Organizing Secretary**).
4. Ramanujan Mathematical Society Workshop on Financial and Biological Mathematics, Jul. 19-20, 2004, School of Mathematics and Allied Sciences, Jiwaji University, Gwalior (**as Coordinator**).
5. National Conference on Mathematical Modelling and Simulation, Jan 9-11, 2009 (**as Convener**).
6. National Workshop on “Theory and Applications of Mathematical and Computational Biology”, January 22-24, 2015 (**as Chairman**).

7. Conference on Special Functions and their Applications and Symposium on Computational and Biological Mathematics, June 21-23, 2010 (**as co-convener**).
8. 20th Annual National Conference of Gwalior Academy of Mathematical Sciences and Symposium on Mathematics in Real Life Problems with Special Reference to Life Sciences, Feb. 05-07, 2016 (**as co-convener**).
9. International Conference on New Frontiers in Mathematics, December 11-13, 2018 (**as convener**).
10. Webinar on “Mathematical Modelling perspectives for prediction of spread and control strategies for COVID-19”, 24 June 2020 (**as convener**).
11. Webinar on Mathematical modeling in the memory of Srinivasa Ramanujan on 21 December 2020 (**as Chairman**).
12. Expert webinar on Srinivasa Ramanujan’s contribution to Mathematics in modern perspective on 24 December 2021 (**as convener**).
13. National webinar on Recent Advances in Mathematics with reference to contribution of Srinivasa Ramanujan on 22 December 2022 (**as convener**).

20. Academic Positions Held:

1. Member, Board of Studies in Computer Applications, Jiwaji University, Gwalior.
2. Executive member of the Gwalior Academy of Mathematical Sciences.
3. Member, Editorial Board of the Proceedings of the Mathematical Society, B.H.U. Varanasi.
4. Member, Board of Studies in Jyotirvigyan, Jiwaji University, Gwalior.
5. Member, Board of Studies in Jyotirvigyan, Lucknow University, Lucknow.
6. Executive Member of the Computer Society of India, Gwalior Chapter.
7. Editor of the Mathematical Society, B.H.U., Varanasi.
8. Member, Board of Studies in Mathematics, Government Autonomous P.G. College, Datia, M.P.
9. Vice President of Bio-Mathematical Society of India.
10. Member, Board of Studies in Mathematics, Bundelkhand University, Jhansi.

11. Member, Board of Studies in Mathematics, Kamla Raja Government Autonomous P.G. College, Gwalior, (M.P.)
12. Member, Editorial Board of the International Journal of Biomathematics and Systems Biology.
13. Member of the Academic Committee for Mathematics, Dr. B.R. Ambedkar University, Agra, U.P.
14. Member, University Research Council, Amity University, Gwalior, M.P.
15. Chairman, Board of Studies in Mathematics, Jiwaji University, Gwalior.
16. Dean of Science Faculty, Jiwaji University, Gwalior.
17. Editorial board member of Journal of Recent Trends in Basic and Applied Sciences published by Jiwaji University, Gwalior.

21. Academic Positions Holding at Present:

1. Member, Editorial Board of the American Journal of Computational and Applied Mathematics.
2. Vice-President of the Mathematical Society, B.H.U. Varanasi.
3. Vice-President of Indian Society for Mathematical Modelling and Computer Simulations (ISMMACS).

22. Number of Research Projects Completed – 04

1. Quantitative Study of the Effects of Growth of Population and Pollution on Rural Ecosystem, Sponsored by M.P.Council of Science and Technology, Bhopal (1989-1992). (**As Co-investigator**).
2. Mathematical Modelling in the Study of Ecological Effects of Pollution on the Existence of Interacting Species Systems, Sponsored by U.G.C. New Delhi (2001-2004). (**As Co-investigator**).
3. Mathematical Study of Wildlife Population with Special Reference to Shivpuri District of Madhya Pradesh, Sponsored by M.P. council of Science and Technology, Bhopal (2002-2005). (**As Co-investigator**)
4. Modelling the effects of pollution on the temporal dynamics of interacting species systems in aquatic bodies, sponsored by Jiwaji University, Gwalior for generation of facilities for innovative research work, 2016-2017(**As Principal Investigator**).

21. Number of Long Term Programs (Refresher Course, Schools, Orientation-Course, Instructional Conference and Workshop) Attended - 10

1. UGC Sponsored Summer School on Biomathematics, I.I.T., Kanpur, (May 1-26), 1984.
2. Instructional Conference on Applied Mathematical techniques with Special Reference to Modelling in Atmospheric and Oceanic Processes, D.A. University, Indore (April 10-29), 1989.
3. Continuing Education Course on Future Scanning, Technology Forecasting, Assessment and Management, ESCI, Hyderabad (Jan. 1-6), 1990.
4. Continuing Education Course on Forecasting Methodologies, Perspective Planning and Management of Futures, ESCI, Gwalior (Feb. 19-23), 1990.
5. Third Autumn Course on Mathematical Ecology, I.C.T.P. Trieste, Italy, (Oct 29-Nov.16), 1990.
6. Instructional Conference on Computational and Finite Element Methods, IGNOU, New Delhi (Oct.22-Nov.02), 1991.
7. Second Autumn Workshop on Mathematical Ecology, I.C.T.P. Trieste, Italy, (Nov.02-20), 1992.
8. Orientation Programme on Computers, Jiwaji University, Gwalior, (Feb.22-March7), 1992.
9. Instructional Conference on Mathematical Modelling in Ecology and Medicine, Jiwaji University, Gwalior (March 28-April 17), 1997.
10. Refresher Course on Industrial Mathematics and Computing, Institute of Basic Sciences, Agra (March 20-April 14), 1999.

22. Member of Academic Bodies:

1. Life Member of Computer Society of India.
2. Life Member of Gwalior Academy of Mathematical Sciences.
3. Life Member of Mathematical Society, B.H.U, Varanasi.
4. Life Member of Indian Society for Mathematical Modelling and Computer Simulations, (ISMMACS).
5. Life Member of International Academy of Physical Sciences (IAPS).
6. Life Member of Bio-mathematical Society of India (BSI).

23. Awards and Fellowships:

1. Fellowship of ISMMACS – 2021 has been awarded by The Indian Society for Mathematical Modeling and Computer Simulation for outstanding contribution in the field of Mathematical Modeling and Simulation.

24. Number of Invited Lectures/Talks delivered - 23

1. Delivered an invited lecture in 5th Annual Conference of Gwalior Academy of Mathematical Sciences held at Govt. P.G. College, Guna on May 21, 2000.
2. Delivered an invited talk in an ISTE Sponsored Training Programme held at Bundelkhand Institute of Engineering and Technology, Jhansi on 23 December, 2000
3. Delivered an invited talk in the 20th annual conference of the Mathematical Society, Banaras Hindu University, Varanasi held during Jan.10-11, 2005.
4. Delivered an invited talk in the 21st Annual Conference of the Mathematical Society, B.H.U., Varanasi held during Jan.23-24, 2006.
5. Delivered an Extension Lecture in Govt. S.L.P.P.G. College, Gwalior on Feb. 23, 2008.
6. Delivered an invited lecture in the 74th Annual Conference of Indian Mathematical Society held at University of Allahaabad during December 27-30, 2008.
7. Delivered an invited talk in the one day Colloquium on Mathematical Biology and Ecology, Jadavpur University, Kolkata, Feb. 20, 2009.
8. Delivered an invited talk in Silver Jubilee Conference of the Mathematical Society, Banaras Hindu University held at Varanasi during December 22-24, 2009.
9. Delivered an invited lecture in 11th International Conference of the International Academy of Physical Sciences held at University of Allahabad, Allahabad, during February 20-22, 2010.
14. Delivered an invited lecture in the 26th Annual Conference of the Mathematical Society, Banaras Hindu University, Varanasi, November 28-29, 2010.
15. Delivered an invited lecture in the National Conference on Theoretical Biology and Biomathematics, Jadavpur University, Kolkata, December 15-16, 2010.
16. Delivered an invited lecture in the 3rd National Conference on Present Trends in Mathematics and its Applications held at G.E.C. Gwalior on April 23rd, 2011.
17. Delivered an invited lecture in the 78th Annual Conference of the Indian Mathematical Society held at B.H.U. Varanasi during January 22-25, 2013.

18. Delivered an invited lecture in the National Conference on Mathematics held during Nov. 29 – Dec. 01, 2013 at Department of Mathematics and Astronomy, University of Lucknow, Lucknow.
19. Delivered an invited lecture in the 29th Annual National Conference of the Mathematical Society, Banaras Hindu University, Varanasi, during February 3-4, 2014.
20. Delivered an invited talk in the National Workshop on Theory and Applications of Mathematical and Computational Biology, ABV-IIITM, Gwalior, January 22-24, 2015.
21. Delivered an invited talk in the International Conference on Mathematical Modelling and Simulation, August 29-31, 2016, Banaras Hindu University (BHU), Varanasi.
22. Delivered an invited lecture in the 33rd Annual National Conference of Mathematical Society-BHU on Recent Advances in Mathematical Modelling and Analysis held during February 16-17, 2018 at Banaras Hindu University (BHU), Varanasi, India.
23. Delivered a lecture on Srinavasa Ramanujan biography and his contribution in mathematics in National webinar organized by PGV College, Gwalior on National Mathematics Day, 22 December 2020.
24. Delivered a lecture on Mathematical modeling in population ecology and epidemiology in webinar entitled “Focus on Advanced Mathematics” organized by Govt. P. G. (Excellence) college, Morena, 14 January 2021.
25. Delivered a lecture on Mathematical Modeling in Population Dynamics and Infectious Diseases during the two week Faculty Development Programme on “Research Advances in Mathematics and its Applications” organized by the Department of Mathematics, Sathyabama Institute of Science and Technology, Chennai from 2 August to 14 August, 2021.
26. Delivered a lecture on Modelling the Effect of Toxicant on a Three Species Food-Chain System with Predator Harvesting during the one week Faculty Development Programme on “Biosystems with special focus on Epidemiology” organized by Mizoram University, India from 22 August to 27 August, 2022.
27. Delivered a lecture on Transmission Dynamics of infectious diseases with special reference to COVID – 19 in the International Conference of The Mathematical Society – BHU on “Recent Trends in Mathematical and Computational Sciences” held during February 03-05, 2023 at Banaras Hindu University (BHU), Varanasi, India.

25. Cultural/ Extra Curricular Activities:

1. Worked as Member of the Organizing Committee of West Zone Intervarsity Youth Festival (1998-99).
2. Worked as Member of the Organizing Committee of National Inter- University Youth Festival (2004).
3. Organized General Science Quiz Competition on Science Day (28- 02-2008) in Jiwaji University, Gwalior.
4. Served the teacher community in the capacity of the Secretary of Jiwaji University Teachers Association for Two Years.

26. Teaching Experience: 34 Years (As Professor – 17 Years).

(O.P. Misra)