

**LIST OF Ph.D. STUDENTS PRODUCED BY THE MATHEMATICS
DEPARTMENT,
H.B.T.I., KANPUR (TILL NOW)**

| S.No. | Tit le | Year | Candidate's Name | Guide |
|--------------|--|-------------|-------------------------|---------------------|
| 1. | Analytical study of momentum and heat transfer problems in non-newtonian fluids | 1971 | M. D. Rai Singhania | Prof. P. N. Tandon |
| 2. | Analytical study of simultaneous transfer process in non-newtonian fluids | 1973 | Om Prakash Singh | Prof. P. N. Tandon |
| 3. | Analytical study of transfer process in non-newtonian fluids | 1973 | A. K. Chaturvedi | Prof. P. N. Tandon |
| 4. | Certain dual, triple and quadruple integral equations and series | 1973 | T. N. Trivedi | Prof. A. P. Dwivedi |
| 5. | Analytical study of some problems in hemo-dynamics | 1975 | V. K. Kapoor | Prof. P. N. Tandon |
| 6. | Momentum and heat transfer problems in non-newtonian fluids | 1975 | S. C. Pokhariyal | Prof. P. N. Tandon |
| 7. | Analytical studies of some lubrication problems | 1976 | K. Verma | Prof. V. K. Kapoor |
| 8. | Some integral and series equations and their applications in the mathematical theory of elasticity | 1978 | J. P. Sharma | Prof. A. P. Dwivedi |
| 9. | Mathematical models of some problems in cardiovascular systems | 1980 | Kusum Agarwal | Prof. P. N. Tandon |
| 10. | A study of film lubricated bearing | 1980 | R. S. Gupta | Prof. V. K. Kapoor |
| 11. | Applications of lubrication theory to human joints | 1980 | Sunil Jaggi | Prof. P. N. Tandon |

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| 12. | A biomechanical study of normal and artificial Joints. | 1980 | Lila C. Joseph | Prof. P. N. Tandon |
| 13. | Analytical study of some problems in two phase flow | 1981 | V.K. Katiyar | Prof. P. N. Tandon |
| 14. | Mathematical studies of some lubrication problems | 1981 | J. S. Yadav | Prof. V. K. Kapoor |
| 15. | Certain integral equations of mixed boundary value problems arising in mathematical physics | 1982 | V. B. Singh | Prof. A. P. Dwivedi |
| 16. | Study of integral equations and problems of elasticity | 1982 | S. P. Kushwaha | Prof. A. P. Dwivedi |
| 17. | Mathematical models in cardiovascular dynamics | 1982 | T.S. Pal | Prof. A. P. Dwivedi |
| 18. | Analytical study of some problems physiological flows | 1983 | J. Prakash | Prof. P. N. Tandon |
| 19. | Studies on drag reduction phenomenon | 1983 | A. K. Kulshreshtha | Prof. P. N. Tandon |
| 20. | Some contributions to biological fluid transport processes | 1983 | Manju Agarwal | Prof. V. K. Kapoor |
| 21. | A study of rheological behaviour of physiological fluids | 1983 | J. K. Mishra | Prof. P. N. Tandon |
| 22. | Study of fourier series equations and integral and their applications in elasticity | 1984 | P. Gupta | Prof. A. P. Dwivedi |
| 23. | Some mixed boundary value problems of elastic strip containing Griffith cracks | 1984 | R. D. Awasthi | Prof. A. P. Dwivedi |
| 24. | Certain integral and sequence equations involving special functions. | 1985 | R. G. Gupta | Prof. A. P. Dwivedi |
| 25. | A study of integral equations and their applications | 1986 | B. D. Shukla | Prof. A. P. Dwivedi |

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| 26. | Some crack problems opened by forces at crack faces in a rectangular domain | 1986 | D. N. Gupta | Prof. A. P. Dwivedi |
| 27. | A study of thermal behaviour of physiological systems | 1986 | N. K. Gupta | Prof. P. N. Tandon |
| 28. | Study of some integral equations and crack problems of elasticity | 1987 | S. C. Shukla | Prof. A. P. Dwivedi |
| 29. | Mathematical models of the functional state of the physiological transport processes | 1988 | P. Nirmala | Prof. P. N. Tandon |
| 30. | Analytical study of flow and diffusion in modeled physiological systems | 1988 | Rekha Agarwal | Prof. P. N. Tandon |
| 31. | Analytical study of diffusion processes in eye and brain | 1989 | Manju Purwar | Prof. P. N. Tandon |
| 32. | Some aspects of bone in growth by electrical stimulation | 1989 | T. D. Gupta | Prof. P. N. Tandon |
| 33. | Fluid dynamics of eye and cerebrospinal fluid | 1990 | Ram Autar | Prof. P. N. Tandon |
| 34. | Some mixed boundary value problems over multiply connected domains | 1992 | Puspendra Tripathi | Prof. A. P. Dwivedi |
| 35. | A study of the physiological lubrication diffusion phenomenon in synovial joints | 1992 | Amita Chaurasia | Prof. P. N. Tandon |
| 36. | A study of some recent aspects and microcirculation | 1992 | Boswal T. | Prof. P. N. Tandon |
| 37. | Models of capillary tissue exchange systems | 1992 | Mamta Mishra | Prof. P. N. Tandon |
| 38. | A study of certain non-newtonian fluids in reference to physiological | 1993 | Kiran Kushwaha | Prof. P. N. Tandon |
| 39. | Study of some integral and series | 1993 | Sarita Pandey | Prof. A. P. Dwivedi |

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| | equations and their applications | | | |
| 40. | Some mathematical models on selective predation : the effect of age structure on stability | 1993 | R. K. Pandey | Dr. M. Saleem |
| 41. | Mathematical analysis of diffusion in microcirculation | 1994 | S. U. Siddiqui | Prof. A. P. Dwivedi |
| 42. | A study of recent aspects of microcirculation | 1992 | T. Boswal | Prof. P. N. Tandon |
| 43. | A Numerical study of flow and diffusion through arteries (normal and pathological) | 1994 | U. V. S. Rana | Prof. P. N. Tandon |
| 44. | Oscillation in predator Prey systems with selection predation | 1994 | R. K. Pandey | Dr. M. Saleem |
| 45. | Certain integral equations and series and mixed boundary value problems of elasticity | 1996 | Rolli Singh | Prof. A. P. Dwivedi |
| 46. | Study of generalized integral equations and series equations and their applications | 1998 | Jyotsana Chandel | Prof. A. P. Dwivedi |
| 47. | Study of generalized of integral equation and series equations and their applications | 1998 | R. P. vastava | Prof. A. P. Dwivedi |
| 48. | Some problems on heat and mass transfer in Synovial Joints | 1999 | Ajay kumar Shukla | Dr. Rekha Bali |
| 49. | Study of generalized series equations and applications | 2001 | Tarunnaum Siddiqui | Prof. A. P. Dwivedi |
| 50. | Certain integral and related equations and mixed boundary value problem. | 2003 | Poonam Bajpai | Prof. A. P. Dwivedi |
| 51. | The transmission dynamics of AIDS epidemic : Some nonlinear mathematical models | 2004 | Sandeep Omar | Dr. Ram Naresh |
| 52. | Mathematical modelling of transport phenomenon with reference to | 2008 | Ms. Sapna | Dr. S. U. Siddiqui |

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| | biomechanics. | | | |
| 53. | Removal of air pollutants from the atmosphere by precipitation: Mathematical models and their analyses. | 2008 | Shyam Sunder | Dr. Ram Naresh |
| 54. | Mathematical modeling of the transmission of AIDS epidemic: Nonlinear models and their analyses. | 2009 | Agraj Tripathi | Dr. Ram Naresh |
| 55. | Mathematical modeling of heat and mass transfer phenomena in synovial joint. | 2009 | S. K. Sharma | Dr. Rekha Bali |
| 56. | Modeling and analysis of aransport phenomena in eye. | 2010 | Deepti Tandon | Dr. Ram Autar |
| 57. | Mathematical modeling of fluid flow in the Eye. | 2011 | Rashmi vastava | Dr. Ram Autar |
| 58. | Mathematical modeling of the spread of Demographic infectious diseases and environmental effects. | 2012 | Surabhi Pandey | Dr. Ram Naresh |
| 59. | Mathematical study of blood flow in diseased and normal blood vessels. | 2012 | Shailesh Mishra | Dr. S. U. Siddiqui |
| 60. | Mathematical analysis of pulsatile blood flow in stenosed and catheterized blood vessels. | 2012 | Narendra Kumar Verma | Dr. S. U. Siddiqui |
| 61. | Mathematical modeling of the spread of AIDS epidemic in a variable size population. | 2013 | Dileep Sharma | Dr. Ram Naresh |
| 62. | Some flow and diffusion problems in microcirculation with application to physiological systems. | 2013 | Swati Mishra | Dr. Rekha Bali |
| 63. | Mathematical study of flow and oxygen transport in blood vessels in the presence of magnetic field. | 2016 | Usha Awasthi | Dr. Rekha Bali |

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| 64. | Mathematical modeling of intraocular Flow Phenomena | 2017 | Swati Shrivastava | Dr. Ram Autar |
| 65. | Study of non-newtonian fluids and transport of nanoparticles in normal and stenotic blood vessels | 2018 | Nivedeta Gupta | Dr. Rekha Bali |
| 66. | Mathematical modeling of transport phenomena in circulatory system | 2018 | Geeta | Dr. S. U. Siddiqui Dr. Sapna Ratan Shah |
| 67. | Mathematical modeling in biomechanical aspect of circulatory system | 2019 | Anuradha Singh | Dr. S. U. Siddiqui Dr. Sapna Ratan Shah |
| 68. | Mathematical modelling of blood flow problems in stenosed blood vessels | 2021 | Chhama Awasthi | Dr. S. U. Siddiqui |
| 69. | Modeling the spread and control of infectious diseases in a variable size population, | Submitted | Sandhya Rani Verma, | Dr. Ram Naresh |
| 70. | Mathematical modeling of heat transfer in biological tissues under laser irradiation | In Progress | Anuj Kumar | Dr. Ram Autar |
| 71. | Mathematical modeling for nanoparticle delivery in the blood | In Progress | Bhawini Prasad | Dr. Rekha Bali |
| 72. | Mathematical study for blood flow in small blood vessels | In Progress | Ragini Tripathi | Dr. Rekha Bali |
| 73. | Mathematical modeling of atmospheric acid rain and its effects on biological systems | In Progress | Monika Trivedi | Dr. Ram Naresh |
| 74. | Mathematical Modeling of Transport Phenomena in Biological/ Physiological Tissues | In Progress | Monika Gupta | Dr. Ram Autar |