CURRICULUM VITAE



Name Dr. BEER SINGH BHADAURIA

- Designation Professor of Mathematics
- AffiliationDepartment of Mathematics, School for Physical & Decision Sciences,
Babasaheb Bhimrao Ambedkar Central University, Lucknow-226025,
India (A Central University) Tel: 0091 522 2998127(o),
9453641182(Mob) Email: mathsbsb@yahoo.com

Subject Applied Mathematics

Specialization Fluid Mechanics, Numerical Methods, Mathematical Modeling

EDUCATIONAL QUALIFICATIONS:

D.Sc.: Department of Mathematics, Institute of Science, Banaras Hindu University, Varanasi, India

Title : Linear and nonlinear thermal instabilities under various physical configurations

Ph.D.: Department of Mathematics and Statistics, Jai Narain Vyas University, Jodhpur, Rajasthan, India

Title : A Study of Convective Flows in Geophysical Fluid Dynamics

M.Sc.: Jiwaji University, Gwalior, M.P., India, Mathematics 78%

B.Sc.: Jiwaji University, Gwalior, M.P., India, Physics, Chemistry, Mathematics 61%

HONOURS AND AWARDS:

- (i) *Outstanding Research Achievement Award* on 26th January 2021 for significant academic and research contribution for being ranked among the world's top 2% scientists in a study at Stanford University of USA.
- (ii) Honoured by the Governor of UP, Shri B L Joshi in May 2014 for publishing research in high impact factor journals.
- (iii) Won Indian Mathematical Society's *Best Research Paper award* during Indian Mathematical Society Conference organized by the Department of Mathematics, at *Indian Institute of Technology Roorkee*, India between 26-29 December 2005.
- (iv) Received *CSIR Scholarship* (Junior and Senior Research Fellowships) at *Indian Institute of Technology, Delhi* during 1991-1995.
- (v) *Second rank* in M.Sc. in the University.
- (vi) Top rank student of University in M.Sc. previous.

TEACHING EXPERIENCE: 23 YEARS AND 6 MONTHS

No.	Position	From	Till	Institution / University
1.	Professor	06.07.2011	Till date	Department of Mathematics, School for Physical and Decision Sciences, Babasaheb Bhimrao Ambedkar University (A Central University) Lucknow-226025, India
2.	Professor (On EOL from BBAU)	04.07.2014	25.04.2016	Department of Mathematics, Institute of Science, Banaras Hindu University, Varanasi (A Central University), India
3.	Associate Professor	22.07.2009	05.07.2011	Department of Mathematics, Faculty of Science, Banaras Hindu University(BHU), Varanas i, India
4.	Reader	27.11.2007	21.07.2009	Department of Mathematics, Faculty of Science, Banaras Hindu University(BHU), Varanasi, India
5.	Associate Professor	22.07.2006	26.11.2007	Department of Mathematics & Statistics, Faculty of Science, Jai Narain Vyas University Jodhpu r-342001, India.
6.	Assistant Professor (Senior scale)	22.12.2001	21.07.2006	Department of Mathematics & Statistics, Faculty of Science, Jai Narain Vyas University Jodhpu r-342001, India.
7.	Associate Professor (On Leave)	22.10.2003	31.10.2004	Department of Mathematics, Eritrean Institute of Technology, Asmara, Eritrea (N. E. Africa). (Under united Nations Development Program)
8.	Assistant Professor	01.09.1998	21.12.2001	Department of Mathematics & Statistics, Faculty of Science, Jai Narain Vyas University Jodhpu r-342001, India.
9.	Lecturer	22-07-1997	31-08-1998	Faculty of Engineering and Technology, R.B.S. College, Bichpuri, Agra (U.P.), India.
VISIT	IS TO FOREI	GN COUNTR	IES	
1.	Academic	02.06.2018	08.06.2018	Department of Mathematics and Statistics, Sultan Qaboos University, Muscat , Oman
2.	Visit for collaborative	11.06.2014	17.06.2014	Department of Mathematics and Statistics, Sultan Qaboos University, Muscat , Oman
3.	research	11.06.2011	18.06.2011	Department of Mathematics and Statistics, Sultan Qaboos University, Muscat , Oman
4.	Visiting Professor	04.06.2012	22.06.2012	Centre of Mathematical Science Studies, Faculty of Science and Technology, University of Kebangsaan, Malaysia
5.	Visiting Professor	23.10.2011	29.10.2011	Centre of Mathematical Science Studies, Faculty of Science and Technology, University of Kebangsaan, Malaysia
6.	Conference	30.04.2012	02.05.2012	Int Conf. organized by Hassan II University, Cabaslanca (Morocco) at Marrakech
7.	Associate Professor	22.10.2003	31.10.2004	Department of Mathematics, Eritrean Institute of Technology, Asmara, Eritrea (N.

E. Africa).

8. Conference 03.10.2003 05.10.2003

Int. Conf. Dept of Mathematics, Southern Maine University, Portland, Maine (**USA**)

MAJOR RESEARCH PROJECT: COMPLETED (02)

S. No.	Funding Agency	Sanctioned Amount(Rs.)	Duration	Title
(i)	UGC	2,12,600	01.07.2003 to 30.06.2006	Numerical Simulation of Non-linear Rayleigh-Benard Convection in a Rectangular Box
(ii)	UGC	4,87,100	01.04.2007 to 31.03.2010	Effect of Modulation on Thermal Instabilities in a Multicomponent- Fluid- Saturated Porous Medium

Ph.D. STUDENTS SUPERVISED: 10 (AWARDED)

- (i) Kanchan Shakya (2019), B.B.A. Univ., Lucknow, India.Title: Heat and Mass transfer in Fluid and Porous Medium
- (ii) Vineet Kumar (2018), B.B.A. Univ., Lucknow, India.

Title: Nonlinear convection in nanofluids

- (iii) Ajay Singh (2017), B.B.A. Univ., Lucknow, India Title: Convection in fluid and porous media under modulation
- (iv) Manoj Kumar Singh (2016) B.B.A. Univ., Lucknow, India, Title: Stability and bifurcation analysis of some real life problems
- (v) Palle Kiran (2014) B.B.A. Central Univ, Lucknow, India Title: Linear and nonlinear convection under modulation
- (vi) Shilpi Agarwal (2010), Banaras Hindu University, Varanasi-221005, India
 Title: Linear and Nonlinear Convection in Nanofluids
- (vii) Atul Kumar Srivastava (2011) Banaras Hindu University, Varanasi-221005, India Title: Thermal Instabilities under Certain Hydrodynamic Configurations
- (viii) Jogendra Kumar (2012) Banaras Hindu University, Varanasi-221005, India
 Title: Convective Flows and Heat Transfer in Porous media
- (ix) Aalam Sherani (2008), JNV Univ., Jodhpur, Rajasthan, India Title: Convective Flows and Instabilities in Geophysical Fluid Dynamics.
- (x) Mahesh Bohra (2009), JNV Univ., Jodhpur, Rajasthan, India. Title: Thermal Instability and Pattern Formation in Geophysical Fluid Dynamics
- (xi) Mr. Anoj Kumar (Gave pre-Ph.D. seminar on 07.05.2011) BHU,
 Varanasi. Died on 19.06.2011 just before he could submit his thesis.
 Title: Convective Flows and Instabilities in Fluid and Porous Media

ON GOING Ph.D.: 07

- (i) Mr. Anurag Srivastava at B.B.A. Univ., Lucknow, India, Joined in Sept. 2017 Title: Instability in Nanofluids Under LTE and LTNE
- (ii) Mr. Awanish Kumar at B.B.A. Univ., Lucknow, India, Joined in Sept. 2017 Title: Convection in Nanofluids Under Various Configurations
- (iii) Mr. Sobh Nath Rai at B.B.A. Univ., Lucknow, India, Joined in August 2018 Title: Thermal Instability in Nanofluids under Modulation
- (iv) Mr. Brajesh Kumar Singh at B.B.A. Univ., Lucknow, India, Joined in August 2019

Title: Modulation Effects on Thermal Instability in Nanofluids

- (v) Mr. Anish Kumar at B.B.A. Univ., Lucknow, India, Joined in August 2019 Title: **Heat transfer in nanofluids under various configurations**
- (vi) Mr. Shilpee at B.B.A. Univ., Lucknow, India, Joined in December, 2020

Title: Heat transfer in nanofluids under LTE and LTNE

(vii) Mr. Ismail at B.B.A. Univ., Lucknow, India, Joined in December, 2020Title: Convective Instability in nanofluids under various configurations

RESEARCH FIELD:

Computational Fluid Dynamics, Non-linear Thermal Instability in Fluid and Porous Media, Convection in Nanofluids, Numerical Analysis, Mathematical Modeling.

EXAMINER OF THE Ph.D. THESES:

- 1. "A Mathematical Model on Effect of Fertilizer in Soil Fertility" by Manish Khajanchi to **University of Kota**, Kota (June 2019).
- 2. "Travelling wave solutions of wave-wave interaction models in ionic media: a study in dusty plasma" by Chandrawati Sindhi to **Jai Narain Vyas University**, Jodhpur (to be conducted viva on 19.06.2019)
- "Rayleigh-Benard Convection in Porous Enclosures" submitted by Siddabasappa C. to Bangalore University, Bangalore, Sept. 2018 (conducted viva on 23.10.2018)
- 4. M.Phil. dissertation "An analytical study of boundary layer flow of nanofluid" by Vivek Kumar submitted to **Delhi University**, Delhi, Sept. 2018 (conducted viva on 15.10.2018)
- "Computer assisted solution to the flow problem involving coolant surrounded stretching wafer films" Submitted to Visvesvaraya Technological University Belgaum (Karnataka) by Sreelakshmi D. in 27.12.2017, conducted viva in June 2018.
- 6. "A study of certain problems in lubrication and associated numerical models" submitted to **Sardar Patel University, Vallabh Vidyanagar** (Gujrat) by Mehta Shruti Sunilkumar in 31.10.17.
- 7. "A study of some hydromagnetic and hydrodynamic heat transfer problems" submitted to **Gauhati University, Guwahati** by Suman Agarwalla in 11.1.2017

- 8. "Mathematical Modelling and Numerical Study of Heat Regulation in Human Body" submitted by Mr. Padam Sharma to **Barkatullah University**, **Bhopal**. Feb. 2017(Viva conducted on 30.12.2017).
- 9. "Problems on convective instabilities in fluid and porous medium", **Gulbarga University, Gulbarga**, by Irfana Begum, June 2016.
- 10. "An analytical study of some problems on convective instabilities", **Gulbarga University, Gulbarga**, by Shaheen Kouser, May 2016.
- 11. "Study on Buoyancy and Surface Tension Driven Convection in Nanofluid", **Christ University, Bangalore** by Ritu Bawa, May 2016. (Conducted viva on 11.06.2016).
- 12. "A study of unsteady flow of Newtonian and non-Newtonian fluids", **Jiwaji University, Gwalior** by Rakesh Kumar Shakya, April-2015.
- 13. "Some studies on shock wave propagation in the atmospheres of the earth and stars", **Veer Bahadur Singh Purvanchal University**, **Jaunpur** by Vivek Kumar Sharma, Department of Mathematics, T.D.P.G. College, Jaunpur, Dec-2014.
- 14. "Mathematical Study of Migration of Different Animal Species with Special Reference to Marine Life", **Barkhatullah University, Bhopal**, submitted by Neeta Mazumdar, 2014 (conducted viva on 03.11.2014).
- 15. "Analytical solution of nonlinear partial differential equations of some phenomena arising in fluid flow through porous media" **S.V. National Institute of Technology, Surat-395007**, India, submitted by Amit K Parikh (2014) (conducted viva on 12.04.2014).
- "Rayleigh-Benard and Benard-Marangoni Convection Problems in Variable Viscosity Liquids" Visvesvaraya Technological University, Belgaum (Karnataka) submitted by Mr. Govindraju M.V.(2013)(conducted viva on 29.03.2014)
- 17. "Stretching Sheet Problems in Newtonian/Non-Newtonian Liquids" Visvesvaraya Technological University, Belgaum (Karnataka) submitted by Naveen Kumar N.P. (2012). (Conducted viva in 2013).
- 18. "Mathematical Modeling of Dispersion of Pollutants in Porous Media" University of Kerala, submitted by Jagadeesh Kumar M.S. (2012).
- 19. "Investigations on Selected Problems of Magneto Hydro Dynamic Flow", **Osmania University, Hyderabad** submitted by Araja Neelima (2012).
- 20. "On Convection and flow in porous medium with cross-diffusion", University of KwaZulu-Natal (**South Africa**), submitted by Ahmed A. Khidir (2012).
- 21. "Complex dynamics of ecological systems: Models and Methods", **Indian School of Mines, Dhanbad**, submitted by Sharada Nandan Raw (2012). (conducted viva in 2012).
- 22. "On Some Solutions for Radiative Magneto Hydrodynamics Shock Wave and their Solutions in a Conductive Field", **Bundelkhand University, Jhansi** by Seema Singh (2011). (viva conducted in Dec 2011).
- 23. "A weather Driven Mathematical Model for Regional Malaria Transmission Relating Local Socio Economic Conditions" **University of Kota** submitted by Jyoti Sachdeva (2010).

- 24. "Convective Flows and Instabilities in Geophysical Fluid Dynamics", **JNV Univ.**, **Jodhpur**, Rajasthan, by Aalam Sherani (2008).
- 25. "Thermal Instability and Pattern Formation in Geophysical Fluid Dynamics", JNV Univ., Jodhpur, Rajasthan, Mahesh Bohra (2008).

REVIEWER FOR THE JOURNALS:

(i) Journal of Porous Media, USA, (ii) Transport in Porous Media, Springer, (iii) Proceedings of National Academy of Sciences, Allahabad, (iv) Chemical Engineering Communications, Springer, (v) ASME J. of Fluids Engineering, (vi) The Open Applied Mathematics Journal, (vii) ASME Journal Heat Transfer, USA, (viii)Special Topics & Reviews in Porous Media, USA, (ix) Int. J. Thermal Sciences, Elsevier, (x) Microfluidics and Nanofluidics, Springer, (xi) Ain Shams Engineering Journal, Elsevier, (xii) Meccanica, Springer, (xiii) Journal of India Mathematical Society, India (xiv) Nonlinear Dynamics, Springer.

ORIENTATION/REFRESHER COURSES ATTENDED:

S. No.	Course	University	Duration	Grade
1	Orientation	J.N.V. University, Jodhpur, India	19.11.2001 to 15.12.2001	
2	Refresher	Jamia Millia Islamia, New Delhi, India	08.08.2000 to 30.08.2000	
3	Refresher	J.N.V. University, Jodhpur, India	23.09.2002 to 12.10.2002	А
4	Refresher	J.N.V. University, Jodhpur, India	08.09.200327.09.2003	А

MEMBERSHIP OF ACADEMIC/PROFESSIONAL ORGANISATIONS:

- 1. Life member of Forum for Interdisciplinary Mathematics, USA.
- 2. Life member of Indian Mathematical Society (IMS) India.
- 3. Life member of Indian Science Congress, Kolkata India.
- 4. Life member of Rajasthan Ganit Parishad, Ajmer India.
- 5. Life member of Indian Society of Mathematics and Mathematical Sciences (ISMAMS), Gorakhpur India.
- 6. Life member of Calcutta Mathematical Society, Kolkatta, India.
- 7. Life member of Gwalior Academy of Mathematical Sciences, Gwalior, India.
- 8. Life member of Wider Association for Vedic Studies (Waves), New Delhi, India.
- 9. Life member of Indian Academy of Mathematics, Indore, India.
- 10. Life member of the Bharat Ganita Parishad, Lucknow, India.
- 11. Life member of the Vijnana Parishad of India.
- 12. Life member of Mathematical Society-Banaras Hindu University, Varanasi.
- 13. Life membership of Indian Society of Mathematical Modeling and Computer Simulations, IIT Kanpur.

OTHER ACADEMIC/RESEARCH ACTIVITIES:

- 1. **Vice-President** of the Mathematical Society-Banaras Hindu University, Varanasi, India with effect from 01.01.2018.
- 2. **Secretary** of the Mathematical Society-Banaras Hindu University, Varanasi, India with effect from 01.01.2010 to 31.12.2017.
- 3. **Secretary** of the Departmental Council, Dept. of Mathematics, Faculty of Science, Banaras Hindu University, Varanasi, India with effect from 01.08.2010 to 05.07.2011.
- 4. **Joint Secretary** of the Gwalior Academy of Mathematical Sciences, Gwalior, India with effect from 21.05.2009.
- 5. Worked as **Joint Secretary** of the Mathematical Society-Banaras Hindu University, Varanasi, India between 08.08.2008-31.12.2009.
- 6. Member of the Executive Council of the Vijnana Parishad of India.
- 7. **Convener** of the symposium on "Recent Advances in Fluid Mechanics" held on Jan. 05, 2015 as part of the ISC-2015, Jan 03-07, 2015 at Dept. of Mathematics, University of Mumbai, Mumbai, India.
- 8. **Co-convener** of the International Conference on Emerging Trends in Computational and Applied Mathematics, being organized by the Dept. of Applied Science, ITM University, Gurgaon, Haryana, India, during 2-4 June 2014.
- 9. **Convener** of the Minisymposium on **"Nonlinear Thermal Instability"** a part of the International Conference on Structural Nonlinear Dynamics and Diagnosis, organized by Hassan II University, at Agadir (Morocco) at Marrakech during May 19-21, 2014.
- 10. **Co-convener** of the 29th Annual Conference of the Mathematical Society- BHU on Recent Trends in Mathematical Modelling and Simulations organized by Dept. of Mathematics, BHU, Varanasi, India during February 03-04, 2014.
- 11. **Convener** of the International Conference on Mathematical Modeling and Numerical Simulation organized by the Dept. of Applied Mathematics, BB Ambedkar University, Lucknow, India during July 01-03, 2013.
- 12. Organized *National Workshop cum Training Programme on "Computing Techniques and Applications*" from July 01-07, 2012, in the Dept. of Mathematics, Faculty of Science, Banaras Hindu University, Varanasi, India.
- 13. Organized the 27th Annual Conference of Mathematical Society-BHU on *Mathematical and Statistical techniques and their applications in science and engineering* during November 26-27, 2011 at BBAU, Lucknow, India.
- 14. **Organized** the 26th **Annual Conference** of Mathematical Society-Banaras Hindu University, Varanasi, India between November 28-29, 2010 as Secretary of the Society.
- Organized a National Workshop cum Training Programme on "Recent Trends in Fluid Mechanics" from July 06 - 12, 2010, in the Dept. of Mathematics, Faculty of Science, Banaras Hindu University, Varanasi, India.
- 16. Organized the Silver Jubilee Conference of Mathematical Society-Banaras Hindu University, Varanasi, India between December 22-24, 2009 as joint Secretary of the Society.
- 17. Organized National Workshop cum Training Programme on "Advanced Numerical Techniques and Applications" from June 29 – July 11, 2009, under India Mathematics Year-2009, in the Dept. of Mathematics, Faculty of Science, Banaras Hindu University, Varanasi, India.

- 18. **Organized** the 24th **Annual Conference** of Mathematical Society-Banaras Hindu University, Varanasi, India between December 30-31, 2008 as joint Secretary of the Society.
- 19. Organized the 12th Annual Conference of Vijnana Parishad of India and a National Symposium on Applications of Special Functions during October 25-27, 2007 at Department of Mathematics and Statistics, Jai Narain Vyas University Jodhpur, Rajasthan, India.

<u>CONFERENCES / SEMINARS / WORKSHOPS ATTENDED / LECTURES</u> DELIVERED:

- 1. **Delivered lecture** in Short Term Course, organized by Women Engineering College, Ajmer on 24.10.2020 on the topics; "Advance theoretical and numerical techniques to solve differential equations".
- 2. **Delivered lecture** in Short Term Course, organized by Women Engineering College, Ajmer on 27.10.2020 on the topics; "Numerical simulation of natural convection in a rectangular porous cavity"
- 3. **Delivered two lectures** (one session: 2:00pm-5:00pm) on 24.02.2020 in the refresher Course, organized by Lucknow University, Lucknow on the topics; 1. Approximations of Functions using least square method, 2. Methods of Approximations: Galerkin and least square methods.
- 4. **Delivered an invited lecture** in the 34rd Annual Conference of Mathematical Society BHU, Varanasi on "Numerical simulation of natural convection in a rectangular cavity" on Nov. 12, 2019.
- 5. **Delivered lecture** on 17.10.2019 in the **Refresher Course**, organized by the Dept. of Mathematics, University of Allahabad on "Advance Theoretical and Numerical Techniques"
- 6. **Delivered lecture** on 17.10.2019 in the **Refresher Course**, organized by the Dept. of Mathematics, University of Allahabad on "Thermal Instability in a Rectangular Enclosure"
- 7. **Delivered an invited lecture** on the topic "Mathematical and statistical techniques for management and commerce" at Department of Rural Management, BBAU Lucknow on 13.03.2019
- 8. **Delivered an invited lecture** on the topic "Numerical simulation of natural convection in a rectangular porous cavity" at Department of Mathematics, RSM University, Lucknow on 22.02.2019
- 9. Delivered an invited lecture on the topic "Weakly nonlinear convection under modulation" at National Conference of Ganita Parishad of India at Lucknow University on 11.11.2018.
- 10. **Delivered an invited lecture** on the topic "Advanced Theoretical and Numerical Techniques: An overview" at Ram Swaroop Memorial University, Lucknow on 12.09.2018.
- 11. **Delivered a lecture** on the topic "Weak nonlinear thermal instability in a horizontal fluid/porous layer under modulation" at Dept of Mathematics and Statistics, SQU, Muscot on June 05, 2018.

- 12. **Delivered an invited lecture** in the 33rd Annual Conference of Mathematical Society BHU, Varanasi on "Linear and nonlinear convection in a horizontal fluid layer" during Feb 16-17, 2018.
- 13. **Delivered an invited lecture** in Ist North Indian Science Congress on "Linear and nonlinear thermal instability in a horizontal fluid layer" at BBAU, Lucknow during Jan 10-11, 2018.
- 14. Chief Guest of the inaugural function and invited speaker at National Conference on Mathematical Modeling-Modern Approaches during Oct. 13-14, 2017.
- 15. Delivered an invited lecture in the International Conference on "Fluid Mechanics and its Applications", at Department of Mathematics, BNMIT College, Bangalore, during July 12-14, 2017.
- 16. **Delivered a lecture** in the workshop on "Emerging Research Trends in Computer Science", Organized by Dept. of Computer Science, BBA University, Lucknow between March 20-24, 2017.
- 17. **Delivered an invited talk** in the 4th Lucknow Science Congress, organized by BB Ambedkar Central University, Lucknow during March 03-04, 2017.
- 18. **Delivered an invited talk** in the 32th Annual National Conference of MS-BHU on "Recent trends in Mathematical analysis and its applications" during February 17-18, 2017 held at BHU, Varanasi.
- 19. **Delivered an invited talk** at Department of Mathematics, Christ University, Bangalore on "Mathematical Modeling and its applications to real life problems" dated 11.06.2016.
- 20. **Delivered an invited talk** in the 31th Annual National Conference of MS-BHU on "Mathematical and Statistical techniques and their applications to science and engineering" during November 21-22, 2015 held at the Dept. of Maths, DIT University, Dehradun.
- 21. **Delivered an invited talk** in an International Conference on Frontiers in Mathematics, organized by Dept. of Maths., Guhawati University during March 26-28, 2015.
- 22. **Delivered an invited talk** in the 30th Annual National Conference of MS-BHU on "Mathematical Analysis and Applications" during January 30-31, 2015 held at the Dept. of Maths, BHU, Varanasi.
- 23. **Delivered an invited talk** in a Symposium on "Recent Advances in Fluid Mechanics" on Jan. 05, organized as part of Indian Science Congress-2015 during Jan 03-07 at Mumbai University, Mumbai.
- 24. **Delivered an invited expert lecture** at Sagar Institute of Research, Technology and Science, Bhopal on 03.11.2014
- 25. **Delivered an invited talk** in a Symposium on "Algebra and its interactions & Advances in Mathematics II" during 101st Indian Science Congress held at Jammu University during Feb 03-07, 2014.
- 26. Participated in the International Conference on Environmental Technology and Sustainable Development: Challenges & Remedies, organized by the Dept. of Environmental Sciences, BB Ambedkar Central University, Lucknow during February 21-23, 2014.

- 27. **Delivered an invited talk** in a training programme on "Advanced Analytical and Numerical Techniques for Engineers and Scientists", organized by SVNIT, Surat during March 03-07, 2014.
- 28. **Delivered a Keynote Address** in a training programme on "Advanced Analytical and Numerical Techniques for Engineers and Scientists", organized by SVNIT during March 03-07, 2014.
- 29. **Participated as an Expert** in an Interactive Session of a training programme on "Advanced Analytical and Numerical Techniques for Engineers and Scientists", organized by SVNIT during March 03-07, 2014.
- 30. **Delivered three lectures (one session)** on 06.03.2014 in the **Refresher Course**, organized by the Dept. of Mathematics and Astronomy, Lucknow University, during February 14-March 07, 2014.
- 31. **Delivered an invited talk** in 2nd Lucknow Science Congress, organized by BB Ambedkar Central University, Lucknow during March 27-28, 2014.
- 32. Chief Guest in Inaugural Function and Delivered an invited talk at Dept. of Mathematics and Humanities, SVNIT Surat on 12.04.2014, title "Weak nonlinear thermal instability under modulation".
- 33. **Delivered an invited talk** at national Conference on Contemporary developments in mathematical sciences and computing, organized by Department of Mathematics, Galgotias University, Greater Noida (U.P.) during February 02-03, 2013.
- 34. **Delivered an invited talk** at national Conference on Advances in Mathematics and Applications, organized by Department of Mathematics, The Burdwan University, Burdwan (W.B.) during March 06-07, 2013.
- 35. **Delivered an invited talk** at national Conference on Applied Statistics and Applications organized by Department of Applied Statistics, Babasaheb Bhimrao Ambedkar University, Lucknow during March 16-17, 2013.
- 36. **Delivered an invited talk at** National Conference of Ganita Parishad, held at Dept of Mathematics and Astronomy, Lucknow University, Lucknow March 24, 2013.
- 37. **Delivered an invited talk at** National Conference of Recent Advances in Mathematics, held at Dept of Mathematics and Astronomy, Lucknow University, Lucknow between Feb 02-04, 2012.
- 38. **Presented a paper in the** International Conference on Structural Nonlinear Dynamics and Diagnosis, organized by Hassan II University, Cabaslanca (Morocco) at Marrakech during April 30-May 02, 2012.
- 39. **Two invited lectures** delivered in National workshop cum training programme on computing techniques and applications organized by Dept. of Maths, BHU, Varanasi during July 01-07, 2012.
- 40. **Delivered an invited talk at** International Conference on Modeling and Simulation of Diffusive Processes and Application organized by the Department of Computer Science, Banaras Hindu University, Varanasi-221005, India during October 09-12, 2012.
- 41. **Delivered an invited lecture** at Centre of Mathematical Science Studies, Faculty of Science and Technology, University of Kebangsaan, Malaysia on 28.10.2011.

- 42. **Delivered an invited lecture** in the International Conference on "Fluid Mechanics and its Applications", at Department of Mathematics, BNMIT College, Bangalore, during July 20-22, 2011.
- 43. **Delivered an invited talk on** "Nonlinear Convection under Thermal Modulation" in a Workshop organized by Dept. of Maths & Stats, Sultan Qaboos University, Muscat on 14.06.2011.
- 44. **Delivered an invited talk on** "Convection in Nanofluids" in a Workshop organized by Dept. of Maths & Stats, Sultan Qaboos University, Muscat on 14.06.2011.
- 45. **Delivered an invited talk on** "Numerical Methods Used to Solve the Stability Problems" in a Workshop organized by Dept. of Maths & Stats, Sultan Qaboos University, Muscat on 14.06.2011.
- 46. Attended the National Workshop on "Mathematical Models for Bio-Fluid Flows and Applications" during January 22-26, 2010 at Dept of Mathematics, S.V. University, Tirupati, A.P.
- 47. Delivered an invited lecture in the National Conference on "Emerging Trends in Fluid Mechanics and Graph Theory", at Department of Mathematics, Christ University, Bangalore, during February 24-26, 2010.
- 48. **Delivered an invited lecture** in the 26th **Annual Conference** of Mathematical Society-Banaras Hindu University, Varanasi held between November 28-29, 2010.
- 49. **Delivered an invited lecture** National conference on Mathematical Modeling and Simulation at Jiwaji University Gwalior between January 09-11, 2009.
- 50. **Delivered an invited lecture** in National conference on Analysis and Applications held at Dept. of Maths, BHU, between March 19-21, 2009 and delivered an **invited talk**.
- 51. **Delivered a lecture** in training programme for Mathematics teachers of Mumbai and Patna region at Central school, Mughal Sarai, Varanasi on 20.05.2009.
- 52. **Delivered an invited lecture** in 14th Annual conference of Gwalior Academy of Mathematical Sciences, Gwalior during July 17-19, 2009 at IPS College of Tech and Management, Gwalior.
- 53. **Delivered a lecture** in Department of Economics, Baranas Hindu University, Varanasi on 17.02.2008 during departmental lecture series.
- 54. **International conference** of Forum for Interdisciplinary Mathematics held at IIT Chennai between January 06-08, 2007.
- 55. Conference of Gwalior Academy of Mathematical Sciences (GAMS) and all India symposium on computational Biology organized by the Department of Mathematics, Maulana Azad National Institute of Technology, Bhopal between April 06-08, 2007, and **chaired** a technical session.
- 56. Attended and organized the Conference of Vijnana Parishad of India, between October 25-27, 2007 at Department of Mathematics and Statistics, Jai Narain Vyas University Jodhpur, Rajasthan, India.

- 57. Attended and chaired one technical session in 23rd Annual Conference of Mathematical Society-Banaras Hindu University, Varanasi, between December 25-27, 2007.
- 58. **International** Conference cum Workshop on Industry-Academia Collaboration: Opportunities and Challenges at Ansal Institute of Technology, Gurgaon between March 03-06, 2006.
- 59. Conference of Gwalior Academy of Mathematical Sciences (GAMS) held at Jaypee Institute of Engg. & Tech., Guna (M.P.) between April 22-23, 2006, and **chaired** a technical session.
- 60. Conference on Mathematics organized by Bharat Ganita Parishad, Department of Mathematics & Astronomy, Lucknow University, Lucknow(U.P.) between November 18-19, 2006.
- 61. Conference of Indian Mathematical Society held at Department of Mathematics, Rani Durgavati University Jabalpur, **India**, between December 27-30, 2006.
- 62. Indian Science Congress held at Nirma University, Ahmedabad between January 03-07, 2005 India.
- 63. Conference of Wider Association for Vedic Studies (WAVES), held at Rajasthan Sanskrit University, Jaipur, between 16-18th December, 2005 **India**.
- 64. Conference of Indian Mathematical Society held at Department of Mathematics, Indian Institute of Technology Roorakee, **India**, between December 26-29, 2005.
- 65. Participated in workshop at Department of Mathematics, University of Asmara, **Eritrea** (N. E. Africa) on May 15, 2004.
- 66. Conference of Indian Mathematical Society at Department of Mathematics & Statistics, J. N. V. University, Jodhpur **India** between December 26-29, 2004.
- 67. **International** Conference of the Forum for Interdisciplinary Mathematics, held at Department of Mathematics, Southern Maine University, Portland, Maine (USA), between October 03-05, 2003.
- 68. Indian Science Congress, Bangalore, India, held between January 03-07, 2003.

RESEARCH PAPERS

(i) PUBLISHED/ACCEPTED:

- 1. P.K. Bhatia & B.S. Bhadauria, Effect of Modulation on Thermal Convection Instability, *Z. Naturforsch*. 55a, 957-966 (2000), Germany. Imp. Fact. 0.904
- P.K. Bhatia & B.S. Bhadauria, Effect of Low-Frequency Modulation on Thermal Convection Instability, Z. Naturforsch. 56a, 507-522 (2001), Germany. Imp. Fact. 0.904
- 3. B.S. Bhadauria & P.K. Bhatia, Time-Periodic Heating of Rayleigh-Benard Convection, *Physica Scripta* 66(1), 59-65 (2002), **Sweden.** Imp. Fact. 1.161
- 4. B.S. Bhadauria, Thermal Modulation of Rayleigh-Benard Convection, Z. *Naturforsch.* 57a, 780-786 (2002), Germany. Imp. Fact. 0.904
- B.S. Bhadauria, Effects of Modulation on Rayleigh-Benard Convection-II, Z. Naturforsch. 58a, 176-182 (2003a), Germany. Imp. Fact. 0.904

- B.S. Bhadauria, Onset of Instability in Rayleigh-Benard Convection, *Indian J. Engg. Mat Sci*, Vol. 10, 465-473 (2003b), *India.*
- 7. B.S. Bhadauria & Lokenath Debnath, Effects of Modulation on Rayleigh-Benard Convection-I, *Int. J. Maths Math Sci.*, Vol. 2004-19, 991-1001 (2004), USA.
- 8. B.S. Bhadauria, Unsteady heating of Rayleigh-Benard Convection, Z. *Naturforsch*, 59a, 266-274 (2004a), **Germany**. Imp. Fact. 0.904
- 9. B.S. Bhadauria, Convective Instability in a Horizontal Fluid Layer, *Proc. Nat. Acad. Sci.*, Allahabad 74(A), IV, 429-440 (2004b), India.
- 10. B.S. Bhadauria, Effect of Gravity Modulation on Thermal Convection Instability, *Ganita Sandesh*, 18(2), 111-124 (2004), **India**.
- B.S. Bhadauria, P. K. Bhatia & Lokenath Debnath, Convection in Hele-Shaw cell with Parametric Excitation *Int. J. Non-Linear Mech.* 40(4), 475-484, 2005, USA. Imp. Fact. 1.716
- B.S. Bhadauria, Time-Periodic Heating of a Rotating Horizontal Fluid Layer in a vertical Magnetic Field 60a, 583-592 (2005) Z. Naturforschung, Germany. Imp. Fact. 0.904
- B.S. Bhadauria, Oscillatory Heating in Rayleigh-Benard Configuration, J. of Combinatorics, Information & System Sciences(JCISS), Vol. 28-29, Nos. 1-4, pp. 31-46 (2004), 2005, India.
- 14. B.S. Bhadauria, Time-Periodic Heating of Rayleigh-Benard Convection in a vertical Magnetic Field, *Physica Scripta* 73(3), 296-302 (2006), Sweden. IF:1.161
- 15. B.S. Bhadauria, Gravitational Modulation of Rayleigh-Benard Convection 76(A), 61-67 (2006) *Proc. Nat. Acad. Sci. A.*, Allahabad, India.
- 16. B.S. Bhadauria, Temperature Modulation of Double Diffusive Convection in a Horizontal Fluid Layer, Z Naturforsch, 61a, pp. 335-344 (2006) Germany. Imp. Fact. 0.904
- B.S. Bhadauria, Effect of Temperature Modulation on Convective Instability in a Vertical Magnetic Field, *J. Indian Acad. Maths.*, Vol. 28(2), pp. 265-280 (2006) India.
- B.S. Bhadauria, Fluid Convection in a Rotating Porous Layer under Modulated Temperature on the Boundaries, *Transport in Porous Media*, 67(2), 297-315 (2007) Springer. Imp. Fact. 1.012
- B.S. Bhadauria, Thermal Modulation of Rayleigh-Benard Convection in a sparsely packed porous Medium, *J. Porous Media*, Vol. 10(2), 175-188, (2007), USA. Impact factor: 0.413
- 20. B.S. Bhadauria, Oscillatory Heating of a Horizontal Fluid Layer in a Vertical Magnetic Field. *Proc. Nat. Acad. Sci.*, Vol. 77(A), I, pp. 45-56, (2007), **India**.
- B.S. Bhadauria, Effect of Rotation and Temperature Modulation on Convection in an Anisotropic Porous Medium, *GAMS - J. Math. Math. Biosci.*, Vol. 3(1), pp. 1-10, 2007, India.
- 22. B.S. Bhadauria, Thermal Instability in Rayleigh-Benard Configuration. *SEAJMMSc*, Vol. 5(3), (2007), pp. 21-38 India.

- B.S. Bhadauria, Magnetofluidconvection in a Rotating Porous Layer under Modulated Temperature on the Boundaries, *ASME J. Heat Transfer*, Vol. 129, pp. 835-843, (2007) USA. IF: 1.202
- 24. B.S. Bhadauria, Double Diffusive Convection in a Rotating Porous Layer with Modulated Temperature on the Boundaries, *J. Porous Media*, Vol. 10(6), pp. 569-584, 2007 USA. Impact factor: 0.413
- 25. B.S. Bhadauria, Double Diffusive Convection in a porous Medium with Modulated Temperature on the Boundaries, *Transport in Porous Media*, Vol. 70(2), pp. 191-211, 2007, **Springer**. Imp. Fact. 1.012
- 26. B.S. Bhadauria and Mahesh Bohra, Effect of temperature modulation and magnetic field on the onset of convection in an electrically conducting-fluid, *Bulletin of Pure and Applied Mathematics*, Vol. 1(2), pp. 231-245, (2007) India.
- B.S. Bhadauria and Aalam Sherani, Effect of gravity modulation on the onset of Double Diffusive Convection in a horizontal porous medium, *J. Ind. Acad. Maths.* Vol. 30(2), 2008, 311-324, India.
- B.S. Bhadauria and Mahesh Bohra, Effect of temperature modulation and rotation on the onset of thermal convection in a fluid layer, *J. Ind. Acad. Maths.* Vol. 30(2), 2008, 497-513, India.
- 29. B.S. Bhadauria and Md. Aalam Sherani, Onset of Darcy-convection in a magnetic-fluid-saturated porous medium subjected to temperature modulation of the boundaries. *Transp Porous Med* Vol. 73, 349–368, (2008). Springer Imp Fact. 0.772
- 30. B.S. Bhadauria, Combined effect of temperature modulation and magnetic field on the onset of convection in an electrically conducting-fluid-saturated porous medium, ASME J. Heat Transfer, Vol. 130(5), pp. 0526(1-9), 2008, USA. Imp. Fact. 1.421
- B.S. Bhadauria, Effect of Temperature Modulation on Darcy convection in a Rotating Porous Medium, *Journal of Porous Media*, Vol. 11(4), pp. 361-375, 2008, USA. Begell House Impact factor: 0.612
- B.S. Bhadauria and Aalam Sherani, Thermal Modulation of Double Diffusive Convection in a Porous Medium. Vol. 63a, 291-300 (2008) Z. Naturforschung, Germany. Imp. Fact. 0.737
- B.S. Bhadauria, Effect of temperature modulation on magneto double diffusive convection in a fluid layer, *Proc. Nat. Acad. Sci. A.*, Vol. 78 IV, 317-326 (2008), Allahabad, India.
- 34. B.S. Bhadauria and Mahesh Bohra, Combined Effect of Temperature Modulation and Rotation on Thermal Instability in a Horizontal Fluid Layer, SEA-J. Math Math Sci Vol. 6(3), pp. 69-83, 2008, India.
- 35. B. S. Bhadauria and Om P. Suthar, Effect of thermal modulation on the onset of centrifugally driven convection in a vertical rotating porous layer placed far away from the axis of rotation, *Journal of Porous Media*, Vol. 12(3), pp. 239-252, 2009, USA. Begell House, Imp. Fact.: 0.684
- 36. B.S. Bhadauria, Mahesh Bohra and Aalam Sherani, Onset of magnetoconvection in an electrically conducting fluid saturated porous medium under gravity modulation, *Bulletin of Pure Appl. Maths*, Vol. 3(2), (2009) pp. 142-157, **India**.

- 37. B.S. Bhadauria, P. K. Bhatia & Lokenath Debnath, Weakly Non-linear Analysis of Rayleigh-Benard Convection with Time Periodic Heating, *Int. J. Non-linear Mech.*, 44, (2009), pp. 58-65, Elsevier. Imp Fact: 1.716
- 38. Ashok K. Singh and B. S. Bhadauria, Finite Difference Formulae for Unequal Sub-Intervals Using Lagrange's Interpolation Formula. *Int. Journal of Math. Analysis*, Vol. 3, 2009, no. 17, 815 - 827, Bulgaria.
- 39. Om P. Suthar, B S Bhadauria and A Khan, Modulated centrifugal convection in a vertical rotating porous layer distant from the axis of rotation, *Transport in Porous Medium*, Volume 79, Issue 2 (2009), Page 255-264, Springer IF:0.966
- B.S. Bhadauria and Aalam Sherani, Effect of Gravity Modulation on the onset of Darcy convection in a Rotating Porous Medium, *J. Ind. Acad. Maths*. Vol. 31(1), pp. 107-118, 2009, India.
- 41. B.S. Bhadauria and Md. Aalam Sherani, Effect of Temperature Modulation and Rotation on the stability of a Doubly Diffusive Fluid Layer. *Italian J. Pure and Applied Maths*, Vol. 26, 51-70, (2009), **Italy**.
- B.S. Bhadauria, Atul K. Srivastava and Lokenath Debnath, Onset of Convection in Gravity Modulated Anisotropic Porous Medium. GAMS, *J. Math. Math. Biosci.*. Vol. 2(1 & 2), (2009), pp. 1-15.
- 43. B.S. Bhadauria and Aalam Sherani, Magneto convection in a Porous Medium subject to Temperature Modulation of the Boundaries, *Proc. Nat. Acad. Sci. A.*, Vol. 80(I), pp 47-58 (2010) *Allahabad*.
- 44. B.S. Bhadauria and Atul K. Srivastava, Magneto-Double Diffusive Convection in an electrically conducting-fluid-saturated Porous Medium with Temperature Modulation of the Boundaries, *Int J. of Heat and Mass Transfer*, 53 (2010) 2530–2538. Elsevier Impact Factor-2.407
- 45. A.K. Tiwari, A.K. Singh and B.S. Bhadauria, Oscillatory natural convective flow in a vertical annular channel filled with porous material, *Int. J of Energy & Tech*. 2 (7) (2010) 1–8.
- 46. K.N. Mehta and B. S. Bhadauria, Modeling the role of fluctuations in volume on self-purification of natural water bodies, *Asian Journal of Water, Environment and Pollution*, 7(4) (2010) 63-69.
- 47. B.S. Bhadauria and Ashok K. Singh, Modified Numerical Integral Formula for Unequal Sub-Intervals using Cubic Spline Interpolation Formula, *Integration: Mathematical Theory and Applications*, Vol 2, Issue 2, 243-249 (2010).
- 48. Shilpi Agarwal, B.S. Bhadauria and P.G. Siddheswar, Thermal Instability of a Nanofluid Saturating a Rotating Porous Medium, *Special Topics & Reviews in Porous Media*, Vol. 2(1), pp. 53-64 (2011). **Begell House**
- Anoj Kumar and B.S. Bhadauria, Thermal Instability in a Rotating Anisotropic Porous Medium Saturated with Viscoelastic Fluid, *Int. J. Nonlinear Mech.*, Vol. 46 (2011) 47-56. Elsevier. Impact Factor 1.209
- 50. B.S. Bhadauria and Shilpi Agarwal, Natural Convection in a Nanofluid Saturated Rotating Porous Layer - A Nonlinear Study, *Transport in Porous Medium*, (2011) 87, pp. 585–602. Springer Impact Factor 1.811

- 51. Atul K. Srivastava, B.S. Bhadauria and Jogendra Kumar, Magnetoconvection in an Anisotropic Porous layer using Thermal Non-equilibrium Model, *Special Topics & Reviews in Porous Media*, Vol. 2(1), pp. 1-10 (2011). Begell House
- 52. Atul K. Srivastava and B.S. Bhadauria, Solutal Convection in a Mushy layer subjected to Gravity Modulation, *Commun Nonlinear Sci Numer Simulat* 16 (2011) 3548–3558, Elsevier Impact Factor 2.806
- 53. B.S. Bhadauria, Shilpi Agarwal Convective transport in a nanofuid saturated porous layer with thermal non equilibrium model, *Transport in Porous Medium*, Vol 88 (2011) pp. 107–131. **Springer** Impact Factor 1.811
- 54. Om, B.S. Bhadauria and A. Khan, Rotating Brinkman-Lapwood Convection with Modulation, *Transport in Porous Medium*, 88, 369–383 (2011), Springer Impact Factor 1.811
- 55. Anoj Kumar and B.S. Bhadauria, Non-linear two dimensional double diffusive convection in a rotating porous layer saturated by a viscoelastic fluid, Online, *Transport in Porous Medium*, (2011) 87, 229–250 Springer Impact Factor 1.811
- 56. Anoj Kumar and B S Bhadauria, Double diffusive convection in a porous layer saturated with viscoelastic fluid using a thermal non-equilibrium model. *Physics of Fluids* 23, 054101 (2011). American Institute of Physics. IF: 1.926
- 57. B.S. Bhadauria, Shilpi Agarwal, and Anoj Kumar, Non-linear two-dimensional convection in a nanofluid saturated porous medium, *Transport in Porous Medium*, Volume 90, Issue 2 (2011), Page 605-625. Impact Factor 1.811
- 58. Shilpi Agarwal and B.S. Bhadauria, Natural Convection in a nanofluid saturated rotating porous layer with thermal non equilibrium model, *Transport in Porous Medium*, 90(2) (2011) 627-654. Impact Factor 1.811
- 59. B.S. Bhadauria, Anoj Kumar, Jogendra Kumar, Nirmal C. Sacheti and Pallath Chandran, Natural Convection in a Rotating Anisotropic Porous Layer with internal heat, *Transport in Porous Medium*, Volume 90, Issue 2 (2011), Page 687-705. Impact Factor 1.811
- 60. P.G. Siddheshwar, B.S. Bhadauria, Pankaj Mishra and Atul K. Srivastava, Study of heat transport by stationary magneto-convection in a Newtonian liquid under temperature or gravity modulation using Ginzburg-Landau model, *Int. J. Non Linear Mech.* 47 (2012) 418–425. Impact Factor 1.209
- Atul K. Srivastava, B.S. Bhadauria and Vinod K. Gupta, Magnetoconvection in an Anisotropic Porous layer with Soret effect, *Int. J. Non-Linear Mech.* 47 (2012) 426–438. Impact Factor 1.209
- 62. P.G. Siddheshwar, B.S. Bhadauria and Alok Srivastava, An analytical study of nonlinear double diffusive convection in a porous medium with temperature modulation / gravity modulation, *Transport in Porous Medium*, (2012) 91:585– 604 Impact Factor 1.811
- 63. B.S. Bhadauria, Atul K. Srivastava, N.C. Sacheti and P. Chandran, Gravity Modulation of Thermal Instability in a Viscoelastic Fluid-Saturated-Anisotropic Porous Medium, *Z Naturforchung-A*, 67a, (2012) 1-9. Germany. Impact Factor 1.363

- 64. B.S. Bhadauria, Double diffusive convection in a saturated anisotropic porous layer with internal heat source. *Transport in Porous Medium*, 92 (2012) 299-320. Springer Impact Factor 1.811
- 65. B.S. Bhadauria, P.G. Siddheshwar, Jogendra Kumar and Om P. Suthar, Nonlinear stability analysis of temperature/gravity modulated Rayleigh-Benard convection in a porous medium, *Transport in Porous Medium*, 92 (2012) 633-47. Springer Impact Factor 1.811
- 66. Shilpi Agarwal, Nirmal C. Sacheti, Pallath Chandran, B.S. Bhadauria and Ashok K. Singh, Non-linear convective transport in a binary nanofluid saturated porous layer, *Transport in Porous Medium*, Transp Porous Med (2012) 93:29–49 Springer Impact Factor 1.811
- 67. Om P. Suthar, B.S. Bhadauria, and Aiyub Khan, Effect of g-jitter on the onset of thermosolutal viscoelastic convection in the absence of local thermal equilibrium, *Special Topics & Reviews in Porous Media — An International Journal*, 3 (3): 239–246 (2012)
- 68. B.S. Bhadauria, P.G. Siddheshwar, Om P. Suthar, Non-linear thermal instability in a rotating viscous fluid layer under temperature/gravity modulation, ASME J Heat Transfer Volume 134(10), 102502 (9 pages) (2012). Impact Factor 1.83
- 69. Nirmal C. Sacheti, Pallath Chandran, Ashok K. Singh, Beer S. Bhadauria, Transient free convective flow of a nanofluid in a vertical channel, *Int J of Energy & Technology* 4 (32) (2012) 1–7.
- 70. P.G. Siddheshwar, B.S. Bhadauria, Om P. Suthar, Synchronous and asynchronous boundary temperature modulations of Bénard-Darcy convection, *Int. J. Nonlinear Mech.* 49 (2013) 84–89. Impact Factor 1.345
- 71. A.A. Altawallbeh, BS Bhadauria, I. Hashim, Linear and nonlinear doublediffusive convection in a saturated anisotropic porous layer with Soret effect and internal heat source, *Int. J. Heat Mass Transf.*, 59 (2013) 103–111. Impact factor: 2.315
- 72. B.S. Bhadauria, I. Hashim, P.G. Siddheshwar, Study of heat transport in a porous medium under G-jitter and internal heating effects, *Transp Porous Med*, 96 (2013) 21–37. Impact Factor 1.551
- 73. B.S. Bhadauria, I. Hashim, P.G. Siddheshwar, Effects of time-periodic thermal boundary conditions and internal heating on heat transport in a porous medium, *Transp Porous Med* (2013) 97:185–200. Impact Factor 1.551
- 74. B.S. Bhadauria, I. Hashim, P.G. Siddheshwar, Effect of Internal-Heating on Weakly Nonlinear Stability Analysis of Rayleigh-Benard Convection under Gjitter, *Int. J. Nonlinear Mech.* 54 (2013) 35–42. Impact Factor 1.345
- 75. B.S. Bhadauria, I. Hashim, Jogendra Kumar, Alok Srivastava, Cross Diffusion convection in a Newtonian fluid-saturated rotating porous medium *Transp Porous Med.* (2013) 98:683–697. Impact Factor 1.551
- 76. Alok Srivastava, B.S. Bhadauria, P.G. Siddheshwar, I. Hashim, Heat transport in an anisotropic porous medium saturated with variable viscosity liquid under gjitter and internal heating effects, *Transp Porous Med* (2013) 99:359–376. Impact Factor 1.551

- 77. B.S. Bhadauria and Palle Kiran, Study of heat and mass transport in temperaturedependent-viscous fluid under gravity modulation, *Malaya Journal of Matematik*, S1, 33-48 (2013)
- 78. B.S. Bhadauria and Palle Kiran, Heat transport in an anisotropic porous medium saturated with variable viscosity liquid under temperature modulation, *Transp Porous Med* (2013) 100: 279–295. Impact Factor 1.551
- 79. B.S. Bhadauria and Palle Kiran, Study of heat and mass transport in a temperature dependent viscosity fluid layer under temperature modulation, *Int J Scientific Engg Research*, Vol. 5(1), pp. 1954-1963, 2014.
- B.S. Bhadauria and Palle Kiran "Weakly nonlinear magnetoconvection under heat modulation with heat Source, *Int J Engg Research & Applications*, Vol. 4(2), 200-208, 2014.
- 81. B.S. Bhadauria and Palle Kiran, Weakly nonlinear convection in a variable viscosity fluid saturated porous medium under internal heating and temperature modulation. *Eng. Sciences: Int Res J.*, vol. 2(1), pp. 1-7, 2014
- 82. B.S. Bhadauria and Palle Kiran, Study of heat transport by stationary magneto convection in a Newtonian liquid under gravity modulation with internal heating effects. *Mathematical Sciences: Int. Res. J.*, vol. 3(1), pp. 1-7, 2014.
- 83. Nirmal C. Sacheti, Pallath Chandran, A. K. Singh and Beer S. Bhadauria, Developing buoyancy driven flow of a nanofluid in a vertical channel subject to heat flux," *Int J Engg Maths*, vol. 2014, pp. 1-8, 2014
- 84. B.S. Bhadauria, Combined effect of temperature modulation and internal heating on weakly nonlinear double diffusive convection in a porous medium *Int J Energy & Technology*, vol. 6(6), pp. 1-15 (2014).
- 85. Alok Srivastava, B.S. Bhadauria, I. Hashim, Effect of internal heating on double diffusive convection in a couple stress fluid saturated anisotropic porous medium, *Advances in Materials Science and Applications*, 3(1), pp. 24-45 (2014).
- 86. B.S. Bhadauria and Palle Kiran, Weak nonlinear oscillatory convection in a viscoelastic fluid layer under gravity modulation, accepted in *Int J Non Linear Mech* 65 (2014) 133–140. IF: 1.977
- 87. Jadallah M. Jawdat, Ishak Hashim, Beer S. Bhadauria and Shaher Momani, On Onset of Chaotic Convection in Couple-Stress Fluids, *Mathematical Modelling* and Analysis, 19(3), 2014, 359-370. Impact Factor 0.590. Taylor & Francis
- Shilpi Agarwal and B.S. Bhadauria, Unsteady heat and mass transfer in a rotating nanofluid layer, *Continuum Mechanics and Thermodynamics*, (2014) 26:437– 445 Impact Factor 1.43
- 89. B. S. Bhadauria, Palle Kiran, Weakly nonlinear oscillatory convection in a viscoelastic fluid saturating porous medium under temperature modulation, *Int J Heat Mass Transfer*, 77 (2014) 843-851. Impact Factor 2.522
- 90. B.S. Bhadauria and Palle Kiran, Weak nonlinear double diffusive magnetoconvection in a Newtonian liquid under temperature modulation. *Int. J. of Engineering Mathematics*, Vol. 2014, 1-14, 2014

- 91. B.S. Bhadauria, Palle Kiran, Heat transfer for oscillatory convection in a binary viscoelastic fluid layer subjected to temperature modulation at the boundaries, *Int. Comm in Heat Mass Transfer* 58 (2014) 166–175, Impact Factor: 2.124.
- 92. B.S. Bhadauria, Palle Kiran, Weak nonlinear analysis of magneto-convection under magnetic field modulation, *Physica Scripta* 89 (2014) 095209. Impact Factor: 1.296
- 93. B.S. Bhadauria and Palle Kiran, Weakly nonlinear double diffusive convection in a temperature-dependent viscosity fluid saturated porous medium under temperature modulation. *Int. J. Eng Trends & Tech.*, 146-153 (2014) ISSN: 2231-5381.
- 94. B.S. Bhadauria, Palle Kiran, Weak nonlinear oscillatory convection in a viscoelastic fluid saturated porous medium under gravity modulation, *Transport in Porous Media*, 104 (2014) 451-467. IF: 1.551
- 95. Shilpi Agarwal, B.S. Bhadauria, Convective heat transport by longitudinal rolls in dilute Nanoliquids. *J. Nanofluid*, Vol. 3(4), (2014) 380-390. American Scientific Publisher.
- 96. Shilpi Agarwal, Puneet Rana, B.S. Bhadauria, Rayleigh-Benard convection in a nanofluid layer using a thermal non-equilibrium model, *ASME J Heat Transfer*, 136(12): 2014; 122501-122501-14. IF: 2.06
- 97. B.S. Bhadauria and Palle Kiran, Nonlinear Thermal Darcy convection in a nanofluid saturated porous medium under gravity modulation. *Advanced Science Letters*, 20(5-6) (2014) 903-908. IF: 1.253
- 98. B.S. Bhadauria and Palle Kiran, Time periodic thermal boundary and rotation effects on heat transport in a temperature dependent viscosity liquid, *Int. J. Appl. Maths & Mech.*, 10(9), 61-75 (2014).
- 99. Shilpi Agarwal, B.S. Bhadauria, Weak nonlinear stability analysis of Rayleigh– Bénard convection in a rotating nanofluid layer, *Nanomech. Sci. Tech. An Int. J.* 4(3), 1–16 (2013) Begel House
- 100. B.S. Bhadauria and Palle Kiran, Effect of rotational speed modulation on heat transport in a fluid layer with temperature dependent viscosity and internal heat source. *Ain Shams Engineering Journal* (2014) 5, 1287–1297. Elsevier IF: 0.932
- 101. Shilpi Agarwal and B.S. Bhadauria, Flow patterns in linear state of Rayleigh-Benard convection in a rotating nanofluid layer. *Applied Nanoscience*, 4 (2014) 935–941. Springer
- 102. B.S. Bhadauria, Palle Kiran: Chaotic and oscillatory magneto-convection in a binary viscoelastic fluid under G-jitter, *Int. J Heat Mass Transfer*, 84 (2015) 610-624, IF: 2.522. Elsevier
- 103. Palle Kiran, B.S. Bhadauria: Chaotic convection in a porous medium under temperature modulation *Transport in Porous Media*, (2015) 107:745–763. IF: 1.460.
- 104. B.S. Bhadauria, Palle Kiran: Weak nonlinear double diffusive magnetoconvection in a Newtonian liquid under gravity modulation, *J of Applied Fluid Mechanics*, 8(4), 735-746, 2015. IF: 0.505

- 105. Vinod Gupta, B.S. Bhadauria, I. Hashim, J. Jawdat, A.K Singh, Chaotic convection on rotating fluid layer, *Alexandria Engg Journal*, Vol.54(4), (2015) 981–992. Elsevier 2015.
- Manoj Kumar Singh, B.S. Bhadauria, Stability and bifurcation analysis of a harvested predator-prey model, *Math Sci Int. Res. J.* Vol 4(1). ISSN 2278 – 8697 & ISBN 978-93-84124-36-6
- 107. Shilpi Agarwal, Puneet Rana, B.S. Bhadauria, Rayleigh-Benard convection in a nanofluid layer using a thermal non-equilibrium model. *J. Engg* for Gas Turbines & Power. (Sep 01, 2014). doi:10.1115/1.4028491
- 108. Palle Kiran, B.S. Bhadauria: Nonlinear throughflow effects on thermally modulated porous medium, *Ain Shams Engg J.* Vol.7(1) (2016), 473–482.
- Palle Kiran, B.S. Bhadauria: Weakly nonlinear oscillatory convection in a rotating fluid layer under temperature modulation, *ASME J. Heat Transfer*, vol. 138 (2016) 051702(1-10). IF: 2.06.
- 110. B.S. Bhadauria, P.G. Siddheshwar, A.K Singh, Vinod Gupta, A local nonlinear stability analysis of modulated double diffusive stationary convection in a couple stress liquid. *J. Applied Fluid Mech.*, Vol.9(3), pp. 1255-64, 2016
- 111. B.S. Bhadauria Chaotic convection in a viscoelastic fluid saturated porous medium with a heat source. *J. Applied Mathematics*, (2016) Vol. 2016, 1-18.
- 112. B.S. Bhadauria, Ajay Singh, Manoj Kumar Singh, Brajesh K. Singh, Stability analysis and internal heating effects on oscillatory convection in a viscoelastic fluid layer under gravity modulation, *Asia Pacific J Engg Sci & Tech*. Vol. 2(2) (2016) 1-22.
- 113. Manoj Kumar Singha, B.S. Bhadauria, Brajesh Kumar Singh, Optimal harvesting of a ratio-dependent predator-prey model with strong Allee effect, *Asia Pacific J Engg Sci & Tech.* 2 (4) (2016) 1-23.
- Palle Kiran, B.S. Bhadauria, Vineet Kumar, Thermal convection in a nanofluid saturated porous medium with internal heating and gravity modulation, *J of Nanofluids*. 5 (3), 328-339, 2016.
- 115. Vinod K. Gupta, A.K. Singh, B.S. Bhadauria, I. Hasim, J. M. Jawdat, Chaotic convection in couple stress liquid saturated porous layer, *Int. J of Industrial Mathematics*, 8 (2), 147-156 (2016).
- 116. Palle Kiran, B.S. Bhadauria, Throughflow and rotational effects oscillatory convection with modulation, *Nonlinear Studies*, 23(3), 2016, 439-455.
- 117. Atul K. Srivastava, B.S. Bhadauria, Influence of Magnetic Field on Fingering Instability in a Porous Medium with Cross-Diffusion Effect: A Thermal Non-equilibrium Approach, *J. Applied Fluid Mech*, Vol 9(6), pp. 2845-53, 2016
- 118. B.S. Bhadauria, Vineet Kumar, B.K. Singh, I. Hashim, Study of convective thermal instability in nanofluid saturated porous media in the presence of vertical throughflow, internal heat source and rotation, *Vijnana Bharti* Vol 1(2), 2016, 120-140
- 119. B.S. Bhadauria, Manoj Kumar Singh, Ajay Singh, Palle Kiran, Brajesh Kumar Singh, Stability analysis and internal heating effect on oscillatory

convection in a viscoelastic fluid saturated porous medium under gravity modulation, *Int. J of Applied Mechanics and Engg.* 21(4), 785-803 (2016).

- 120. Shilpi Agarwal, B.S. Bhadauria, Thermal instability of a nanofluid layer under local thermal non-equilibrium, *Nano Convergence* 2016, 1-16, DOI 10.1186/s40580-014-0037-z IF: 1:37 Springer
- 121. M. Abdulhameed, R. Roslan, B.S. Bhadauria, I. Hashim, Analytical Solution of Convective Heat Transfer of Oscillating Flow Subject to a Triangular Pressure Waveform, *Int. J. Fluid Mechanics Research*, 43(4), 2016, 333-349. Begell House.
- 122. Om P. Suthar, P. G. Siddheshwar, B. S. Bhadauria, A study on the onset of thermally modulated Benard-Darcy convection, *J of Engg. Maths* 2016, 101(1) 175-188.
- 123. Manoj Kumar Singh, B.S. Bhadauria, Brajesh Kumar Singh, Qualitative analysis of a Leslie-Gower predator-prey system with nonlinear harvesting in predator. Published online *Int J Engg Maths* Vol. 2016 (2016) doi:10.1155/2016/2741891.
- 124. Alok Srivastava, B.S. Bhadauria, Onset of convection in porous medium saturated by viscoelastic nanofluid: More realistic result, *J. Applied Fluid Mech*, Vol. 9(6), pp. 3117-25, 2016.
- 125. Pallath Chandran1 and Nirmal C. Sacheti, Ashok K. Singh and B. S. Bhadauria, Steady free convection in an anisotropic porous non-rectangular vertical cavity. *Global Journal of Pure and Applied Mathematics*, Vol. 12(6) (2016) 4799–4817.
- 126. Vijay K. Yadav, Subir Das, Beer Singh Bhadauria, Ashok K. Singh, Mayank Srivastava, Stability analysis, chaos control of a fractional order chaotic chemical reactor system and its function projective synchronization with parametric uncertainties, *Chinese Journal of Physics*, Vol. 55 (2017), 594-605. IF: 0.464, Elsevier
- 127. Palle Kiran, B.S. Bhadauria, and Y. Narasimhulu Nonlinear throughflow effects on thermally modulated rotating porous medium, online *Journal of Applied Nonlinear Dynamics*, 6(1), (2017) 27-44.
- 128. B.S. Bhadauria, Throughflow effect on weakly nonlinear oscillatory convection in a viscoelastic fluid saturating porous medium under temperature modulation, *J Porous Media* 20(6), (2017) 513-529. IF: 1.035 Begell House.
- 129. Pallath Chandran and Nirmal C. Sacheti, Ashok K. Singh and B. S. Bhadauria, Influence of Heat Sources and Thermal Boundary Conditions on Natural Convective Currents in a Trapezoidal Porous Cavity, *Indian J Industrial and Applied Mathematics* 8(1), (2017), 1–13.
- 130. Manoj Kumar Singh, B. S. Bhadauria, Qualitative analysis of an additional food provided predator-prey model in the presence of Allee effect. *Int. J Applied and Computational Maths.* 3(1), (2017) 1173-1195. Springer
- 131. Alok Srivastava, Vineet Kumar, B.S. Bhadauria, I. Hashim, Nonlinear study of heat transfer in nanofluid saturated horizontal porous medium. *Int J of Science, Tech. and Society*. 3(2), (2017) 41-53.

- 132. Alok Srivastava, Vineet Kumar, B.S. Bhadauria, I. Hashim, Study of heat transfer in a nanofluid layer using homotopy analysis method. *Int. J. of Science, Tech and Society*. 3(1) (2017) 27-39.
- 133. B.S. Bhadauria, Ajay Singh, Convection in an anisotropic porous medium with temperature dependent viscosity and throughflow under G-jitter. *Int J of Science, Tech and Society*. 3(1) (2017) 40-47.
- 134. Palle Kiran, B.S. Bhadauria, Weak nonlinear rotating Bénard convection with modulation using Ginzburg-Landau model. *International Journal of Science, Technology and Society*. 3(1) (2017) 48-57.
- 135. P. Kiran, BS Bhadauria, Y Narasimhulu; Weakly nonlinear and nonlinear magneto-convection under thermal modulation, *J Applied Nonlinear Dynamics*, 6(4), (2017) 487–508.
- 136. Manoj Kumar Singh, B.S. Bhadauria, Brajesh Kumar Singh, Bifurcation analysis of modified Leslie-Gower predator-prey model with double Allee-effect. *Ain Shams Engg J.* 9(4) (2018) 1263-1277. IF: 1.027. Elsevier
- Palle Kiran, B.S. Bhadauria, and Y. Narasimhulu, Oscillatory magnetoconvection under magnetic field modulation, *Alexandria Engineering Journal*, 57, 445-453 (2018). Elsevier
- 138. A.A. Altawallbeh, B.S. Bhadauria, I. Hashim, Linear and nonlinear double-diffusive convection in a saturated porous layer with Soret effect under local thermal non-equilibrium model. *J Porous Media* 21(13) (2018) *IF: 1.035*. Begell House.
- 139. Alok Srivastava, B.S. Bhadauria, A.K. Singh, Study of Heat and Mass Transport in Benard-Darcy convection with g-Jitter and variable viscosity liquids in a porous layer with internal heat source. *J. Applied Fluid Mech.* 11(5), (2018), 1217-1229.
- 140. B.S. Bhadauria, Ajay Singh, Vineet Kumar, Nonlinear g-Jitter Thermal Instability in Nanofluid in the Presence of Throughflow and Heat Source. *Advanced Science, Engineering and Medicine* 10 (7-8) (2018) 705-711.
- B.S. Bhadauria, Vineet Kumar, Convective motion in nanofluid under variable rotational speed. *Advanced Science, Engineering and Medicine* 10 (7-8) (2018) 712-718.
- 142. Pallath Chandran, NC Sacheti, BS Bhadauria, AK Singh, Natural convection in a hydrodynamically and thermally anisotropic non-rectangular porous cavity: effect of internal heat generation/Absorption, *Int J. of Applied Mechanics and Engg.* 23(3) (2018) 595-609.
- BS Bhadauria, Ajay Singh, Throughflow and G-jitter effects on chaotic convection in an anisotropic porous medium *Ain Shams Engineering J.* 9(4) (2018) 1999-2013. IF: 1.027. Elsevier
- 144. Pallath Chandran, NC Sacheti, AK Singh, BS Bhadauria, A Comparative Analysis of Isotropic and Anisotropic Features on Natural Convection in a Permeable CavityInt. *J. Eng Res Tech.* 12(6) (2019) 873-878.
- 145. B.S. Bhadauria, A Singh, MK Singh, Chaotic convection of viscoelastic fluid in porous medium under G-Jitter, *Int J. of Applied Mechanics and Engg*. 24(1) (2019) 37-51

- 146. MK Singh, B.S. Bhadauria, Qualitative Analysis of a Modified Leslie-Gower Predator-prey Model with Weak Allee Effect II, *Applications and Applied Maths: An Int. J.* 14(1) (2019) 139 – 163
- 147. Alok Srivastava, B.S. Bhadauria, Ajay Singh, An analytical study of Heat and Mass Transport in B'enard-Darcy convection with g-Jitter and Variable Viscosity Liquids in porous media, *Special Topics & Reviews in Porous Media* — *An International Journal*, 10(4) (2019) 323 – 338
- 148. SH Manjula, P Kiran, PR Reddy, **BS Bhadauria**, The complex Ginzburg Landau model for an oscillatory convection in a rotating fluid layer, *Int J of Applied Mechanics and Engg* 25 (1), 75-91 (2020)
- 149. P Kiran, **BS Bhadauria**, R Roslan, The effect of throughflow on weakly nonlinear convection in a viscoelastic saturated porous medium, *Journal of Nanofluids* 9 (1), 36-46 (2020).
- 150. MK Singh, **BS Bhadauria**, The Impact of Nonlinear Harvesting on a Ratio-dependent Holling-Tanner Predator-prey System and Optimum Harvesting., *Applications & Applied Mathematics* 15 (1) 117-148 (2020)
- 151. SH Manjula, P Kiran, **BS Bhadauria**, Throughflow and G-Jitter Effects on Oscillatory Convection in a Rotating Porous Medium, *Advanced Science*, *Engineering and Medicine* 12 (6), 781-791 (2020)
- 152. BS Bhadauria, V Kumar, Effect Of Periodic Rotation On Thermal Instability In A Nanofluid - Saturated Porous Medium, *Journal of Porous Media* 23 (11) 1081-1100 (2020) IF: 1.035
- 153. **B.S. Bhadauria**, Awanish Kumar, Through-flow and gravity modulation effect on thermal instability in a Hele-Shaw cell saturated by nanofluid, *Journal of Porous Media* (*Accepted*). 2021

PROCEEDINGS PUBLICATIONS

- 154. B.S. Bhadauria, Non-linear convection with temperature modulation of the boundaries. *Proc. of Int. Conf. held at BNMIT Bangalore*, India during July 20-22, 2011.
- 155. B.S. Bhadauria and Shilpi Agarwal, Natural Convection in a Rotating Nanofluid Layer. Proc. of Int. Conf. on Structural Nonlinear Dynamics and Diagnosis, organized by Hassan II University, Cabaslanca (Morocco) at Marrakech during April 30-May 02, 2012. DOI: 10.1051 /matecconf / 20120106001. Scopus
- 156. Atul K. Srivastava and B.S. Bhadauria, Soret-driven double diffusive magneto-convection in couple stress liquid. *Proc. of Int. Conf. on Structural Nonlinear Dynamics and Diagnosis*, organized by Hassan II University, Cabaslanca (Morocco) at Marrakech during April 30-May 02, 2012. DOI: 10.1051/matecconf/20120106008. **Scopus**
- 157. B.S. Bhadauria, Heat Transport in a viscous fluid layer under temperature and gravity modulations. *Proc. of Int. Conf. on Modeling and Simulation of Diffusive Processes and Application* organized by the Department of Computer Science, Banaras Hindu University, Varanasi-221005, India during October 09-12, 2012.

- 158. Jogendra Kumar, Atul Kumar Srivastava, B.S. Bhadauria, Double diffusive convection in a couple stress fluid saturated porous medium using Thermal Non-equilibrium Model. *Proc. of Int. Conf. on Modeling and Simulation of Diffusive Processes and Application* organized by the Department of Computer Science, Banaras Hindu University, Varanasi-221005, India during October 09-12, 2012.
- 159. V.K. Gupta, B.S. Bhadauria, Double diffusive convection in a couple stress fluid saturated sparsely packed porous layer with Soret effect using thermal non-equilibrium model. *Proc. of Int. Conf. on Modeling and Simulation of Diffusive Processes and Application* organized by the Department of Computer Science, Banaras Hindu University, Varanasi-221005, India during October 09-12, 2012.
- 160. B.S. Bhadauria and Palle Kiran, Weakly nonlinear Benard-Darcy convection under rotation speed modulation and internal heating effects. *Proc. of* 58th congress of ISTAM held during December 18-21, 2013 at Howrah, W.B.
- 161. B.S. Bhadauria, Palle Kiran and M. Belhaq, Nonlinear thermal convection in a layer of nanofluid under G-jitter and internal heating effects. *Proc. of Int. Conf. on Structural Nonlinear Dynamics and Diagnosis*, Morocco, May 19-21, 2014. **Scopus**
- 162. R. Roslan, M. Abdulhameed, B.S. Bhadauria, I. Hashim, Comparison of OHAM and HPM methods for MHD flow of an upper-convected Maxwell fluid in a porous channel. *MATEC Web of Conferences* 16, 09002 (2014). Proc. of Int. Conf. on Structural Nonlinear Dynamics and Diagnosis, Morocco, May 19-21, 2014. Scopus
- 163. B.S. Bhadauria Study of heat transport in a temperature-dependent viscous liquid under temperature modulation. *MATEC Web of Conferences* **16**, 09002 (2014). *Proc. of Int. Conf. on Structural Nonlinear Dynamics and Diagnosis*, organized by Hassan II University, Cabaslanca (Morocco) at Agadir during May 19-21, 2014.
- 164. A.A. Altawallbeh, BS Bhadauria, I. Hashim, Soret effect on doublediffusive convection in a fluid-saturated porous layer with local thermal nonequilibrium model. *MATEC Web of Conferences* **16**, 09002 (2014). *Proc. of Int. Conf. on Structural Nonlinear Dynamics and Diagnosis*, organized by Hassan II University, Cabaslanca (Morocco) at Agadir during May 19-21, 2014.
- 165. A.A. Altawallbeh, I. Hashim, BS Bhadauria, On the linear stability analysis of double diffusive convection in a viscoelastic fluid saturated porous layer with cross diffusion effects and internal heat source, *AIP Conference Proceedings* 1830, 020008 (2017); doi: 10.1063/1.4980871
- 166. AA Altawallbeh, I Hashim, **BS Bhadauria**, Magneto-double diffusive convection in a viscoelastic fluid saturated porous layer with internal heat source, *AIP Conference Proceedings* 2116 (1), 030015 (2019)

BOOK CHAPTERS

B. S. Bhadauria and Palle Kiran, Weak nonlinear thermal convection in a fluid layer under rotation speed modulation. ISBN-(13):978-93-392-0316-0,ISBN(10):93-392-0316-x COPYRIGHT@2014, BY McGraw Hill Education. (2014).

- 168. B. S. Bhadauria, M. K. Singh and B. K. Singh, Analysis of Predator-Prey model in the presence of Allee-Effect II, *Recent Advances in Mathematical and computational Sciences*, Chapter 2, 29-53, 2015, ISBN 978-93-84337-67-4.
- 169. B. S. Bhadauria, Ajay Singh, Manoj Kumar Singh and B. K. Singh, Numerical Study on Chaotic convection in a viscoelastic fluid saturated porous medium under temperature modulation, *Recent Advances in Mathematical and computational Sciences*, Chapter 4, 55-75, 2015, ISBN 978-93-84337-67-4.
- 170. B. S. Bhadauria, Vineet Kumar and B. K. Singh, Week nonlinear stability analysis of thermal convection in an electrically conducting nanofluid layer under magnetic field modulation, *Recent Advances in Mathematical and computational Sciences*, Chapter 11, 155-174, 2015, ISBN 978-93.

ADMINISTRATIVE EXPERIENCE:

- 1. Working as **Dean**, School of Physical & Decision Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow, India w.e.f. August 08, 2019.
- 2. Working as Dean of Students welfare (**DSW**), Babasaheb Bhimrao Ambedkar University, Lucknow, India w.e.f. July 28, 2017.
- 3. Working as **Head**, Department of Mathematics, School for Physical Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow, India w.e.f. June 26, 2016.
- 4. Worked as Administrative Warden, Broacha Hostel, BHU, Varanasi, India between July 01, 2015 to April 25, 2016.
- 5. Worked as **Head**, Department of Applied Mathematics, School for Physical Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow, India from 12.07.2011 to 03.07.2014.
- 6. Worked as Warden, Bhabha Hostel, BHU, Varanasi, India between 01.07.2008 to 30.06.2011.
- 7. Worked as **Head of the Department of Mathematics** at Eritrean Institute of Technology, Asmara, Eritrea (N. E. Africa), from **28.03.04 to 31.10.04.**
- 8. Selected in Madhya Pradesh Public Civil Services (**MPPCS**) Examination-1996 for Assistant Superintendent of Land Records (**ASLR**) and Block Development Officer (**BDO**). Did not join.

EXTRA CURRICULAR ACTIVITIES:

- 1. **Chief Guest** of Inaugural Function of the National Conference on "Mathematical Modeling-Modern Approaches", organized by DIT University, Dehradun during October 13-14, 2017
- 2. Attended meeting as a member of **Board of Studies, Faculty** of Mathematical and Statistical Sciences, Sri Ramswaroop Memorial University, Lucknow, on July 20, 2017.
- 3. **Subject expert** in the Selection Committee for Assistant Professors, Rajasthan, PSC during June 14-16, 2017
- 4. **Subject expert** in the Selection Committee, MD University, Rohtak (Haryana) on 10.06.2017.

- 5. **Coordinator**, Undergraduate Examination, Faculty of Science, **BHU**, Varanasi, India during Nov-Dec 2014, May-June, 2015, Nov-Dec 2015.
- 6. **Member**, Admission Committee, Faculty of Science, **BHU**, Varanasi, India in July 2014, 2015
- 7. Elected as a member of the **Sectional Committee**, Section of Mathematical Sciences (including Statistics) for 2015-16, **Indian Science Congress** Association, Kolkata
- 8. **Member**, Verification Committee under Undergraduate Admission Coordination Committee, Faculty of Science, **BHU**, Varanasi during 2015-16.
- 9. **Member**, Undergraduate teaching & Examination Time-Table Committee, Faculty of Science, **BHU**, Varanasi during 2015-16.
- 10. **Member, Board of Studies, Faculty** of Mathematical and Statistical Sciences, Sri Ramswaroop Memorial University, Lucknow, May, 2014.
- 11. Editorial Board member of International Journal of Physical Research, Science Publishing Corporation, Germany, March, 2014.
- **12. Co-coordinator**, International Conference on "Emerging Trends in Computational and Applied Mathematics", to be organized by Department of Applied Science, ITM University, Gurgaon, Harayana during June 02-04, 2014.
- 13. Coordinator of a Minisymposium on "Nonlinear Thermal Instability" being organized as part of the International Conference on Structural Nonlinear Dynamics and Diagnosis, organized by Hassan II University, at Agadir (Morocco) at Marrakech during May 19-21, 2014.
- 14. **Chief Guest** of Inaugural Function of the training programme on "Advanced Analytical and Numerical Techniques for Engineers and Scientists", organized by SVNIT during March 03-07, 2014.
- 15. **Member, Board of Studies** of Mathematics at DIT University, Dehra Dun, March, 2014. (BOS meeting held on 24.03.2014).
- 16. Editorial Board member of Advanced Nanoscience and Technology: An International Journal (ANTJ) Wireilla Scientific Publications, Australia, August 2013.
- 17. Chairman, **Catering Committee**, IVth Convocation, BBAU, Lucknow, 10th May, 2013.
- 18. Chairman, **Board of Post Graduate Studies**, Dept. of Applied Mathematics, BBAU, Lucknow since July 2011
- 19. Chairman, **Departmental Research Council**, Dept. of Applied Mathematics, BBAU, Lucknow during July 2011-July 2014.
- 20. Member of Academic Council since July 2011, BBAU, Lucknow
- 21. Committee **member** to allot the minor elective courses to various depts. at BHU, Varanasi.
- 22. Committee member to organize Akanksha at BHU, Varanasi.
- 23. Committee **member** to organize Spandan at BHU, Varanasi.
- 24. Committee **member** of Alumni meet at BHU, Varanasi.

- 25. Committee **member** to revise the syllabus of B.Sc./M.Sc. of Maths Dept., BHU, Varanasi.
- 26. Admission Committee member for B.Sc. and M.Sc. at BHU, Varanasi, India.
- 27. Committee member to evaluate the research progress of Ph.D. students of DST-CIMS, BHU, Varanasi, India.
- 28. Committee **member** to organize Lecture Series of Science Faculty, BHU, Varanasi, India.
- 29. Committee member to sensitize the B.Sc. students, BHU, Varanasi, India.
- 30. **Program officer** of **National Service Scheme** (NSS) during the session 2006-07, at faculty of sciences, and during 2007-08 at Faculty of Engineering, J.N.V. University Jodhpur, India.
- 31. Chairman of the selection committee for Power-Lifting team at J.N.V. University, Jodhpur (Raj), India during 2001-2002, 2002-2003, 2007-2008.
- 32. Expert of the selection committee for **Best Physique** team at J.N.V. University, Jodhpur (Raj), India during 2000-2001.
- 33. Expert of the selection committee for **Weight-Lifting** team at J.N.V. University, Jodhpur (Raj), India during 2000-2001.
- 34. Worked as **Sports Officer** at Faculty of Engineering, R. B. S. College Bichpuri Agra (U.P.), India during 1997-98.
- 35. Kho-Kho In-charge of R. B. S. College Agra (U.P.) India during 1998.

EXTRA CURRICULAR ACTIVITIES AS STUDENT

- 36. Won Gold medal in inter Hostel Kabaddi competition in 1993-94.
- 37. Won Gold medal in inter Hostel weight-lifting competition in 1993-94.
- 38. Won Silver medal in inter Hostel Kabaddi competition in 1994-95.
- 39. Won weight-lifting **bronze medal** at inter IIT sports meet held at IIT Bombay during December, 1993.
- 40. Vice-Captain of Weight lifting team at IIT Delhi during 1993-1995.
- 41. Represented Government Science College Gwalior in inter college **Kho-Kho** competition at Jiwaji. University Gwalior (M.P.) during 1986-87.
- 42. **President** of Student Union, Government Science College Gwalior, during M.Sc. final (1988-89).
- 43. Outstanding Contribution to Sports at IIT Delhi in 1995

Google Scholar Citation:	2292
h-index	30
i10-index:	66

Dated: 28.01.2021

(Prof. B. S. BHADAURIA)