Bio Data

Name: Dr. Khem Chand

Correspondence Address: Department of Mathematics and Statistics, H.P. University, Shimla, 171005 –India.

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EDUCATIONAL QUALIFICATIONS

Sr. No	Name of the Examination	Board/University	Year of Passing	Division/Position
1	Matriculation	H. P. Board- Shimla	1982	First
2	Graduation (Non-Medical)	H.P. University-Shimla	1987	First
3	Post Graduation (Mathematics)	H.P. University-Shimla	1989	First
4	B. Ed	H.P. University-Shimla	1990	First
5	M. Phil (Mathematics)	H.P. University-Shimla	1991	First
6	Ph.D	H.P. University-Shimla	2002	
Title of the M. Phil-Dissertation		Hydromagnetic effect on the flow past porous surfaces		
Title of the Ph.D-Thesis		Investigation of Hydrodynamic and Magnetohydrodynamic flow past porous Plates		

TEACHING EXPERIENCES

Sr. No.	Name of the post	Department/Institution	Time Period
1	TGT (Non-Medical)	Himachal Pradesh Govt.	31st May, 1994 to 16th Nov. 1997.
2.	Lecturer in Mathematics (College cadre)	Himachal Pradesh Govt.	17th Nov. 1997 to 2nd March,2010
3	Associate Professor (Mathematics)	H. P. University, Shimla, Department of Mathematics & Statistics	2nd March,2010 to 16 Nov. 2012
3	Professor (Mathematics)	H. P. University, Shimla, Department of Mathematics & Statistics	17th Nov. 2012, till date

RESEARCH AND GUIDANCE

Research Papers	Published	Accepted	Communicated
50	45		05

(a) List of the Published Paper

1 K.D. Singh, **Khem Chand** and S.K. Rana (1993), "Heat transfer in three-dimensional MHD flow past a porous plate". **Indian J. pure appl. Math**., **24**(5), 327-335. **(Springer)**

2 K.D. Singh, **Khem Chand** and G. N. Verma (1995)"Heat transfer in a three-dimensional flow through a porous medium with periodic permeability", **ZAMM, 75** (12) 950-952,(**John Wiley & Sons**)

3 K.D. Singh, Rakesh Sharma and **Khem Chand.** (2000), "Three dimensional fluctuating flow and heat transfer through a porous medium with variable permeability", **ZAMM** 80 (7) 473-480**. (John Wiley & Sons**)

4 K.D. Singh and **Khem Chand (**2000),"Unsteady free convective MHD flow past a vertical porous plate with variable temperature". **Proc. Nat. Acad. Sci. India 70** (A),1, 49-58. **(Springer)**

5 Rakesh Kumar **and Khem Chand** (2011), "Effect of slip conditions and hall current on unsteady MHD flow of a viscoelastic fluid past an infinite vertical porous plate through porous medium". **International Journal of Engineering Science and Technology**, Vol-3 No-4 3124-3133.

6. **Khem Chand** (2011)."Heat transfer in three dimensional MHD boundary layer flow over a continuous porous surface moving in a parallel free stream", **International Journal of Engineering Science and Technology** Vol. 3 No 7, 6058-6063.

7. **Khem Chand** and Rakesh Kumar (2011), **"**Soret and Hall current Effects on Heat and Mass Transfer in MHD Flow of Viscoelastic Fluid past a Porous Plate in Rotating Porous Medium and Slip Flow Regime", **Journal of Rajasthan Academy of Physical Sciences,** vol.-10 No-4, 357-371.

8. K.D. Singh, **Khem Chand** and Shavnam Sharma **(2012), "**Heat and mass transfer in an unsteady MHD convective flow through a porous medium bounded by vertical porous channel in the presence of radiative heat and hall current", **International Journal of Mathematical Sciences and Engineering Applications**, Vol.6, No. I, 317-336.

9. **Khem Chand**, Rakesh Kumar and Shavnam Sharma (2012), "Combined effects of slip and jump boundary conditions on oscillatory MHD flow of viscoelastic fluid considering soret effect", **International journal of Physical and Mathematical Sciences**,vol-3, No-1, 37-44.

10. **Khem Chand** and Rakesh Kumar (2012),"Hall effect on heat and mass transfer in the flow of oscillating viscoelastic fluid through porous medium with wall slip conditions**. Indian journal of pure and applied Physics**, Vol-50 pp-149-155**. (NISCAIR)**

11. **Khem Chand**, Rakesh Kumar and Shavnam Sharma (2012), **"**Hydromagnetic oscillatory vertical Couette flow of radiating fluid through porous medium with slip and jump conditions", **International journal of Physical and Mathematical Sciences**, Vol-3, No-1, 82-90.
12. K.D. Singh, **Khem Chand** and Shavnam Sharma (2012),"Hydromagnetic oscillatory flow of dusty fluid in a rotating porous channel", **Int. journal of Mathematical Archive** ,3(6), 2331-2339.
13. **Khem Chand**, Rakesh Kumar and Shavnam Sharma (2012), "Hydromagnetic oscillatory flow through a porous medium bounded by two vertical porous plates with heat source and soret effect", **Advances in Applied sciences and researches**, 3(4) 2169-2178.
14. **Khem Chand**, K.D. Singh and Sanjeev Kumar (2012) **"**Hall effect on radiating and chemically reacting MHD oscillatory flow in a rotating porous vertical channel in slip flow regime", **Advances in Applied sciences and researches**, 3(4) 2424-2437.
15. **Khem Chand** and Shavnam Sharma (2012),"Hydromagnetic oscillatory flow through a porous channel in the presence of hall current with variable suction and permeability", **International Journal of Statistika and Mathematika,** Vol. 3(1), 70-76. (**Statperson Publication Corporation**)
16. **Khem Chand** and Sapna (2012), "Hydromagnetic free convective oscillatory couette flow through a porous vertical channel with periodic wall temperature", **Int. Journal of Mathematical Archive**, 3(9, 3484-3491.
17. **Khem Chand**, K. D. Singh and Sanjeev Kumar (2013) "Hydromagnetic periodic flow through a porous medium in a circular pipe with slip flow condition", **International journal of Physical and Mathematical Sciences,** Vol-4, No-1, 01-08.
18. **Khem Chand,** K.D. Singh, and Shavnam Sharma (2013), "Combined Effect of Chemical Reaction and Radiation on Heat and Mass Transfer in Oscillatory MHD Flow of Viscoelastic Fluid through Vertical Channel", **Research Journal of Science and Technology**, 5 (1); 77-84.
19. **Khem Chand,** K.D. Singh, and Sanjeev Kumar (2013),"Hydromagnetic periodic flow in a circular pipe through porous medium with heat transfer in slip flow regime", **Research Journal of Science and Technology**, 5(1); 148-152.

20**.** **Khem Chand**, Dinesh Kumar and Sanjeev Kumar (2013), "MHD flow of radiating and chemically reacting viscoelastic fluid through a porous medium in porous vertical channel with constant suction", **International Journal of Engineering Science Invention, Volume** 2(4) , 1-7.

21. **Khem Chand**, Rakesh Kumar, Yogita Bala and Sanjeev Kumar (2013) "Combined effects of Hall current and rotation on free convection MHD flow in a porous channel in slip flow regime", **Proceeding of National Conference on Advances in Mathematics & its Application (AMA-2013)**, Excellent Publishing House-Delhi,108-115.

22. **Khem Chand,** K.D. Singh, and Shavnam Sharma (2013),"Effect of slip and jump boundary conditions on chemically reacting and radiating MHD free convective flow of viscoelastic fluid through a porous medium in porous vertical channel", **Proceeding of National Conference on Advances in Mathematics & its Application (AMA-2013),** Excellent Publishing House-Delhi 116-123.

23. **Khem Chand,** Rakesh Kumar and Shavnam Sharma (2013), "Rarefaction and Darcy effects on the Hydromagnetic flow of radiating and reacting fluid in a vertical channel", **Turkish journal of engineering and environmental sciences, Vol. 37, Issue 2, 137-145. (Published by the Scientific and Technological Research Council of Turkey)**

24. **Khem Chand,** K.D. Singh, and Sanjeev Kumar, "Oscillatory Free convective Flow of Viscoelastic fluid through Porous Medium in a Rotating Vertical Channel", **Proceedings of the National Academy of Sciences, India Section A: Physical Sciences**, December 2013, Volume 83, Issue 4, pp 333-342 **(Springer)**

25. **Khem Chand,** K.D. Singh, and Shavnam Sharma (2013), "Effect of rotation and Hall current on heat transfer in MHD flow of oscillating dusty fluid in a porous channel", **Indian Journal of Pure and Applied Physics,** Vol. 51, 669-682. **(NISCAIR)**

26. **Khem Chand** and Sanjeev Kumar (2013), "Hall effect on chemically reacting and radiating MHD oscillatory viscoelastic flow through porous vertical channel". **Journal of Rajasthan Academy of Physical Sciences,** Vol. 12, No 3, Sep. pp 277-300.

27 **Khem Chand** and Sanjeev Kumar, (2013), "Effect of Hall current and rotation on chemically reacting and radiating MHD oscillatory dusty viscoelastic flow through porous vertical channel", **International Journal of Applied Mathematics and Computation**, 5(3) 17–32.

28. **Khem Chand**, K .D. Singh and Bharti Sharma (2013) "Effects of heat and mass transfer on MHD unsteady convective flow along a vertical porous flat surface with constant suction and heat source", Bull. Cal. Math. Soc. 105 (6) 411-428.

29. **Khem Chand**, Rakesh Kumar and Sanjeev Kumar (2014) "Heat and mass transfer in radiating and chemically reacting MHD oscillating flow of viscoelastic fluid in vertical channel in slip flow regime", **International Journal of Technology**,Vol.04 (1), pp 128-133.

30. **Khem Chand**, K .D. Singh and Dinesh Kumar (2014) "On heat and mass transfer in chemically reacting and radiating viscoelastic MHD flow through porous medium in a vertical channel" **International Journal of Technology**,Vol.04 (1), pp 227--233.

31. M. G. Gorla, **Khem Chand** and Asha Singh (2014) "Effect of rotation on free convective flow on vertically heated plate with gravity modulation in slip flow region" **International Journal of Technology**, Vol.04 (1), pp 20-26.

32. Aarti Maglesh, M. G. Gorla **and Khem Chand** (2014)"Soret and Hall Effect on Heat and Mass Transfer in MHD Free Convective Flow through a Porous Medium in a Vertical Porous Channel", **Proceedings of the National Academy of Sciences, India Section A: Physical Sciences**, Volume 84, Issue 1, pp 63-69. **(Springer)**

33. K. D. Singh, **Khem Chand** and Shavnam Sharma (2014), "Hydrodynamic oscillatory flow of dusty fluid in a rotating porous vertical channel", **Indian Journal of Pure and Applied Mathematics,** Pp 819-835. **(Springer)**

34. **Khem Chand**, K .D. Singh and Bharti Sharma (2014), "Effects of heat and mass transfer on MHD unsteady convective flow along a vertical porous flat surface with constant suction and heat source" **Allahabad Mathematical Society,** Vol. 29 part 2, pp 195-215.

35. **Khem Chand,** Rakesh Kumar and Sanjeev Kumar (2015) "Heat transfer in oscillating hydromagnetic channel flow with arbitrary conducting walls "**Turkish journal of engineering and environmental sciences"** Vol 38 (2) pp 256-265. **(Published by the Scientific and Technological Research Council of Turkey)**

36 . **Khem Chand**, and Bharti Sharma (2015), "Radiating flow with induced magnetic field over a vertical porous plate in the presence of heat source", **Research journal of Engineering and Technology,** Vol. 06 part01, pp 41-46.

37. M G Gorla, **Khem Chand** and Asha Singh (2015), "Combined effects of heat radiation and rotation on free convective flow on vertically upwards heated plate with gravity modulation in slip flow region", **Research journal of Engineering and Technology,** Vol. 06 part01, pp 95-101.

38. K D Singh, **Khem Chand** and Sapna (2015), "An exact solution of unsteady free convective MHD flow past a hot vertical porous plate with variable temperature in slip flow regime", **Research journal of Engineering and Technology,** Vol. 06 part01, pp 102-109.

39. **Khem Chand** and Nidhi Thakur (2015), "Effects of heat and mass transfer on MHD flow past a moving porous plate through porous medium with viscous dissipation", **Research journal of Engineering and Technology,** Vol. 06 part1, pp 113-118.

40. **Khem Chand,** Rakesh Kumar and Sapna (2015) **"**An exact solution of span wise fluctuating MHD free convective heat and mass transfer flow past a vertical porous plate with heat source and Soret effect in slip flow regime", **Journal of Chemical, Biological and Physical Sciences**, Vol5 (3), 2902-2911.

41. M G Gorla, **Khem Chand** and Asha Singh (2015), "Effects of Rotation and Heat Source on MHD Free Convective Flow on Vertically Upwards Heated Plate with Gravity Modulation in Slip Flow Region" **Proceedings of the National Academy of Sciences, India Section A: Physical Sciences**, 85(3), 427-437. **(Springer)**

42. **Khem Chand**, K .D. Singh and Bharti Sharma (2015), "An analytic solution of free convective MHD flow of radiating and reacting fluid past an infinite vertical plate with constant suction" **Ganita,** vol-64, 43-56.

43. **Khem Chand** and Nidhi Thakur (2015), "Effect of porosity, Hall current and radiation on hydromagnetic flow past a heated moving vertical plate: An analysis by using Laplace Transform Technique," Himachal Pradesh University Journal**,** 3(2), 133-145.

44. **Bharti Sharma and Khem Chand** (2016), "Variable permeability and Soret effect on MHD radiative and reacting flow of viscoelastic fluid past an infinite porous plate in slip flow regime," Himachal Pradesh University Journal**,** 3(2), 204-214.

45. Madan Gopal Gorla, **Khem Chand** and Asha Singh (2016), " Unsteady heat and mass transfer in MHD viscoelastic fluid flow through porous medium between two inclined porous plates with soret effect and g-jitter force," Journal of the Indian Math. Soc. 83(3-4), 289-312.

CHAPTER IN THE BOOKS

1. **Khem Chand** and Bharti Sharma (2014) "Heat and mass transfer in MHD free convective flow through porous medium with viscous dissipation", **Recent trends in Algebra and Mechanics (Indo American Books**)-New Delhi, pp 109-120, ISBN-93-82661-23-9.

2 M G Gorla**,** **Khem Chand** and Asha Singh (2014) "Unsteady heat and mass transfer MHD flow between two infinite vertical porous plate with g-jitter forces and soret effect", **Recent trends in Algebra and Mechanics (Indo American Books**)-New Delhi, pp221-234, ISBN-93-82661-23-9.

M. Phil Guidance

Sr. No.	Name of the Student	Year	Topic of the Dissertation
1.	Dinesh Kumar	2010	Exact solution of an oscillatory free convective MHD flow in a rotating porous channel with radiative heat
2.	Bharti Sharma	2011	Radiative heat transfer in MHD oscillatory flow through porous medium bounded by two vertical porous plates
3.	Tevender Singh	2011	An exact solution of an oscillatory MHD flow through porous medium bounded by rotating porous channel in the presence of hall current.
4.	Sapna	2012	Hydromagnetic free convective oscillatory couette flow through a porous vertical channel with periodic wall temperature
5.	Yogita Bala	2012	Combined effects of hall current and rotation on free convection MHD flow in a porous channel in slip flow regime
6.	Nidhi Thakur	2013	Effects of heat and mass transfer on MHD free convective flow through porous medium with viscous dissipation
7.	Shveta	2013	Effect of injection/suction on convective oscillatory flow through a porous medium bounded by two vertical porous plates
8.	Naeem Ahmed Pundeer	2014	Unsteady MHD flow of radiating and reacting fluid past a vertical porous plate with cosinusoidally fluctuating temperature
9.	Ajay Kumar	2014	An analysis of an oscillatory rotating MHD Poiseuille flow with injection/suction and Hall currents.
10	Vandana	2015	Heat and mass transfer in an unsteady MHD free convective flow through a porous medium bounded by vertical porous channel in the presence of radiative heat and hall current

11	Indu Bala	2015	Hall effect on heat and mass transfer in the flow of oscillating viscoelastic fluid through a porous medium with wall slip conditions
12	Vijay Kumar	2016	
13	Swati	2016	

(e). Ph.D-Supervision

Sr. No.	Name of the Student	Year	Topic
1	Shavnam Sharma	Degree awarded (June-2014)	Some Unsteady Hydromagnetic flow Problems in Channels
2	Sanjeev Kumar	Degree awarded (March-2016)	Investigation of some Newtonian and non-Newtonian flow problems
3	Bharti Sharma	In progress	Some hydromagnetic Newtonian and non-Newtonian flow problems past porous plate
4	Dinesh Kumar	Registered	
5.	Sapna	Registered	
6.	Nidhi Thakur	Registered	
7	Ajit Thakur	Registered	
8	Akshay Patiyal	Registered	

(f). Papers Presented in Seminar/Conferences

1. "Heat transfer in three-dimensional MHD flow past a porous plate" in National seminar on recent trends in Continuum Mechanics 28th & 29thMarch, 2011.
   Organized by: Department of Mathematics and Statistics H P University-Shimla-5 under (UGC-SAP)-DRS phase-1.

2 "Hydromagnetic periodic flow in a circular pipe through porous medium with heat transfer in slip flow regime" in International Conference in Mathematical Sciences (ICMS-2013)
Organized by: Department of Mathematics, Govt. College, Haripur (Manali) on 8th and 9th March-2013.

3 "Free convective flow through porous medium between two vertical porous plates" in National conference on Advances in Mathematics & its Application (AMA-2013)

Organized by: Department of Mathematics, National Institute of Technology, Hamirpur, (HP) on (June 25-27, 2013).

4. "On Modelling of two phase Couette flow" in International Conference on Advances in Pure & Applied Mathematics Mathematical Sciences (ICAPAM-2014)

   Organized by: Department of Mathematics, Jawaharlal Nehru Govt. College, Haripur (Manali) on 7th and 9th March-2014.

5. "Radiating flow with induced magnetic field over a vertical porous plate in the presence of heat source" in National seminar on Advances in APPLIED Mathematics & Mechanics (NSAAMM-2015)

   Organized by: Department of Mathematics, Govt. College, Nadaun (Hamirpur) on 12th and 13th March-2015.

(g). Session Chaired

1. Chaired session in International Conference in Mathematical Sciences (ICMS-2013)

   Organized by: Department of Mathematics, Govt. College, Haripur (Manali) on 8th and 9th March-2013.

2. Chaired session in International Conference on Advances in Pure & Applied Mathematics Mathematical Sciences (ICAPAM-2014)

   Organized by: Department of Mathematics, Jawaharlal Nehru Govt. College, Haripur (Manali) on 7th and 9th March-2014.

3. Chaired session in National Seminar on Advances in Applied Mathematics and Mechanics (NSAAMM-2015)

   Organized by: Department of Mathematics, Govt. College, Nadaun (Hamirpur) on 12th and 13th March-2015.

(h). Workshop and Seminar/ Conferences attended

1. National workshop on 'Symbolic computation and use of Mathematica in Continuum Mechanics and Algebra from 15th March, to 20th March-2010.
   Organized by: Department of Mathematics and Statistics H P University-Shimla-5 under UGC-SAP.
2. National seminar on Algebra and its application on 26th & 27th March, 2011.
   Organized by: Dept. of Mathematics and Statistics H P University-Shimla-5 under (UGC-SAP)-DRS phase-1.
3. One week training program me on the "Official Statistics" organized by National Academy of Statistical Administration (NASA) New Delhi. W.e.f 19th-23rd December, 2011.
4. Participated in one day National Seminar-cum-Colloquium on Choice based AND Credit based system for Assessment and Evaluation on 28th November, 2011, at Himachal Pradesh University, Shimla.
   Organized by Department of Geography & Internal quality Assurance Cell of the University.

5. National Conference in Algebra and its application on 27th & 28th March, 2012. Organized by: Dept. of Mathematics and Statistics H. P. University-Shimla-5 under (UGC-SAP)-DRS phase-1.
6. International Conference in Mathematical Sciences (ICMS-2013), **Organized by**: Department of Mathematics, Govt. College, Haripur (Manali) on 8th and 9th March-2013.
7. National conference on Advances in Mathematics & its Application (AMA-2013)

   Organized by: Department of Mathematics, National Institute of Technology, Hamirpur, (HP) on (June 25-27, 2013).

8. International Conference on Advances in Pure & Applied Mathematics Mathematical Sciences (ICAPAM-2014)

   Organized by: Department of Mathematics, Govt. College, Haripur (Manali) on 7th and 9th March-2014.

9. International Conference in Algebra and Allied Fields on 26th & 27th March, 2014. Organized by: Dept. of Mathematics and Statistics H P University-Shimla-5 under (UGC-SAP)-DRS phase-1
10. National Seminar on Advances in Applied Mathematics and Mechanics (NSAAMM-2015) on 12th and 13th March-2015, Organized by: Department of Mathematics, Govt. College, Nadaun (Hamirpur)
11. National Seminar on New Dimensions in Mechanics and Allied Fields (NSNDMAF-2015) on 27th & 28th November, 2015. Organized by: Dept. of Mathematics and Statistics H P University-Shimla-5 under (UGC-SAP)-DRS phase-II.

(j) Lecture Delivered

1. Delivered lectures to the participants in the refresher course for Mathematics teachers organized by Academic staff college –Shimla on 25th& 27th of July 2011 on introduction of Classical mechanics and Lagrangian and Hamiltonian formulism, respectively.

(k). Coaching Program me and other events organized

1. Coordinated the IIT-JEE coaching conducted by Pre-Examination Coaching Centre, H.P. University-Shimla-171005, Year-2010, 25th March to 24th May, 2010.
2. Coordinated the IIT-JEE coaching conducted by Pre-Examination Coaching Centre, H.P. University-Shimla-171005, Year-2011, 23th March to 24th May, 2011.
3. Coordinated the IIT-JEE coaching conducted by Pre-Examination Coaching Centre, H.P. University-Shimla-171005, Year-2012, 26th March-25rd May, 2012.

4. Coordinated the IIT-JEE coaching conducted by Pre-Examination Coaching Centre, H.P. University-Shimla-171005, Year-2012, 20th March, to 19th May, 2013.
5. Coordinated the Bank Probationary Officers coaching conducted by Pre-Examination Coaching Centre, H.P. University-Shimla-171005, 20th July, 19th August-2013.
6. Coordinated the Bank Probationary Officers coaching conducted by Pre-Examination Coaching Centre, H.P. University-Shimla-171005, 16th May, 14th June-2014.
7. Coordinated the Bank Probationary Officers coaching conducted by Pre-Examination Coaching Centre, H.P. University-Shimla-171005, 21st May, 20th June-2015.