Curriculum Vitae

Full Name	Dr. Kailash Chandra Petwal
Designation	Associate Professor
Department	Mathematics
Campus	SRT Campus Badshahi Thaul, TG
Telephone	01376-254079(O)
Mobile	+919411521475
Email	kcpetwal@gmail.com

Education Qualification	B. Sc. (1988) with Physics, Chemistry and Mathematics
	M. Sc. (1990) Mathematics
	D. Phil. (1993), HNB Garhwal University

Teaching Experience	UG-26 Years PG-26 Years	**Research Experience**	27 Years

Areas of Interest/ Specialization

1. Pure and Applied Differential Geometry

Honours & Awards: Best presenter award in the Silver Jubilee Celebration of "International Academy of Physical Sciences (IAPS)-2019"

Member of Academic Institutions

1. Member of BOS, HNBGU
2. Member of Board of Governor (BOG), Patanjali University, Haridwar (2020-23)

Membership of Scientific Organization

1. Member of Tensor Society of India

Research Supervision (No. of Ph.D. Degree Awarded/ Registered)
1. Total Awarded – 07; Registered- Nil

During 2017-2022:   Awarded-02

1. **Kulveer Singh Rana** (Reg. No. SM-16153, 08/07/2015), **Degree Awarded** -14/11/2019
   Topic: Study on Applications of Conformal Geometry in Riemannian Manifolds

2. **Monika Sati** (Reg. No. SM- 17082, 15/11/2017), **Degree Awarded** -13/11/2021
   Topic: Study on Notions of Tensor in Differential Manifold

Research Projects/ MoU undertaken

1. A project entitled "The study of submanifolds in conformal & Pseudo Conformal spaces" is completed under the funding agency 'Uttarakhand State Council for Science & Technology-UCOST' (Dept. of Sc. & Tech., Govt. of Uttarakhand).

Administrative Experience
1. Programme officer NSS (2011-2013) 2. Proctor (3 years) 3. Hostel Warden (3 Years) 3. Sports officer/Sports secretary (2022 to Till Now)

Scientific Visits Abroad/International Collaboration: Nil

Conference/Symposium/Workshop Attended during 2017-2022

1. Presented a paper entitled "*Mathematical Modelling on Probabilistic Environmental Risk Assessment*" in the **international conference** on "Climate change and Disaster Risk Reduction" during October 26-28, 2018 at HNBGU, SRT Campus Badshahithaul, (TG).

2. Presented a paper entitled "*Impacting Digital technologies on Mathematics Education*" in the **National Seminar** on "Digitalization in India: The way to Knowledge Economy" during December 21-22, 2018 at Sahu Jain (PG) College, Najibabad (UP).

3. Presented a paper entitled "*Trends of computing the geometric structures in Mathematical Science*" in the **National Seminar** on "Emerging Trends and Future Challenges in Science" during February 27-28, 2019 at Dept. of Chemistry S.G.R.R. (PG) College, Dehradun (Uttarakhand).

4. Presented a paper entitled "*Survey of image compression and face recognition*" in the **National conference** on "Promoting the Advancement of Applied Sciences" during October 22-23, 2019 at HNBGU, SRT Campus Badshahithaul, (TG).

5. Presented a paper entitled "*Evolution of Weylian structure Under Ricci flow*" in the **24th International conference** of international academy of physical sciences on "Innovations in Physical Sciences" during August 09-11, 2019 at CCS University, Meerut (UP).

6. Presented a paper entitled "*Geometric operations on Diffusion tensor magnetic resonance imaging*" in the **international conference** on Material Science and Applications, during November 25-27, 2019 at HNBGU Srinagar (Garhwal).

7. Presented a paper entitled "*Newtonian limit for the curvature of space time*" in the **25th International conference** on Physical and biological sciences at Cross-roads: Interdisciplinary Explorations and Exciting Challenges, during **December 29-31, 2019** at Guru Jambheshwar University of Science & Technology, Hisar (Haryana).

8. Presented a paper entitled "*Vedic Mathematics: Concept & Calculations*" in the **National Science Day seminar** on "Development of Scientific Temper among Students" during **February 27-28, 2020** at HNBGU, SRT Campus Badshahithaul.

9. Presented a paper entitled "*Analysis of Ricci flow through various Weylian configurations*" in the '**International conference** on Recent Advancements in Mathematics (ICRAM-2021)' during **April 09-10, 2021** at PG and Research Department of Mathematics, Sacred Heart College, Tirupattur, Tamil Nadu.

10. Presented a paper entitled "*A Remark on Almost Complex Manifold with Linear Connections*" in the "**International conference** on Advancements in Engineering and Sciences" during **July 01-02, 2021** at Dept. of Mathematics, Graphic Era Hill & Deemed to be University, Dehradun (Uttarakhand).

11. Presented a paper entitled "*A Remark on Almost Complex Manifold with Linear Connections***"** in the **'International conference** on Mathematical, Physical and Computational Sciences (ICMPCS-2021)'** during **August 27-28, 2021** at Aurora's Degree & PG College in collaboration with Andhra Pradesh and Telangana Mathematical Society (APTSMS).

Conference/Symposium/Workshop Organized during 2017-2022

1. **Organized a national conference** as **an Organizing Secretary** on "Promoting the Advancement of Applied Sciences" during October 22-23, 2019 at HNBGU, SRT Campus Badshahithaul.

2. **Organized a seminar** on "Development of Scientific Temper among Students" on the occasion of national science day-2020 as an **Organizing Secretary** during February 27-28, 2020 at HNBGU, SRT Campus Badshahithaul.

List of publications from 2017-2022

1. Conformal Geometry of arc length Functional on space Curves and Space time; **Kulveer Singh Rana and K. C. Petwal,** Int. *J. of Math. Trends and Technology, vol 47, No. 5, pp. 338-344 (2017).* UGC Listed N0.1/48198

2. Remark on Isotropic four-dimensional conformal structures; **K. C. Petwal and Kulveer Singh Rana,** *Aryabhatta J. of Mathematics & Informatics*, Vol. 9, No. 2, pp. 307-314 (2017). UGC Listed No. 125/8661 (**ICI Journal**)

3. Characteristics of Riemannian manifolds and Pseudo-Riemannian Metric; **K. C. Petwal and Kulveer Singh Rana,** *Aryabhatta J. of Mathematics & Informatics,* Vol.10, No.1, pp. 179-190 (2018). UGC Listed N0.125/8661 (**ICI Journal**)

4. Isotropic tensor Decomposition of Cartan's Curvature tensor in Complex Finsler Manifolds**, K.C. Petwal & Monika Sati,** *International journal of Research in Advent Technology,* Vol.7, No.4, pp 595-599 (April 2019), UGC Listed No.48768; E-ISSN: 2321-9637.

5. Newtonian Limit for the Curvature of Space Time, **K. C. Petwal,** *Journal of International Academy of Physical Sciences,* pp. 337- 347, Vol. 23 No. 4 (2019); ISSN 0974 – 9373. (**ICI Journal**)

6. A Note on Factorization for Centro-symmetric Real matrices that preserves Centro-symmetry, **Vineet Bhatt, K. C. Petwal and S. Kumar,** *Electronic Journal of Mathematical Analysis and Applications,* Vol. 8(2) July 2020, pp. 272-290. ISSN: 2090-729X(online).

7. A Comprehensive Note on Techniques Used for Face Detection and Application, Vineet Bhatt, **Kailash Chandra Petwal** at al., *Applied Mathematics E-Notes, 21(2021), 478-494 c.* ISSN 1607-2510.

8. Some Properties on Divine Kaehlerian Manifold, **Kailash Chandra Petwal,** *Journal of Mountain Research,* P-ISSN: 0974-3030, Vol. 16(1), (2021), 251-258.

9. Evolution of Electric and Magnetic parts of Weyl Tensor in a Space-time, Monika Sati and **Kailash Petwal**; *Journal of Applied & Computational Mathematics,* ISSN: 2168-9679, Vol. 11:06, (2022) 478, Mini Review, Open Access.

10. Evolution of Purely Electric and Magnetic parts of Weyl's Tensor in a Spacetime, Monika Sati and **K. C. Petwal**; *Bulletin of Calcutta Mathematical Society,* ISSN: 008-0659, Vol. 114(1) 75-84 (2022).

11. A Remark on Almost Complex Manifold with Linear Connections, **Kailash Chandra Petwal at al.,** AIP Publishing; **2481**, 020035 (2022); https://doi.org/10.1063/ 5.0105026

12. A Remark on Non-negative Matrix Factorization; **Vineet Bhatt, Kailash Chandra Petwal at. al.,** AIP Publishing; 2481, 020010 (2022); https://doi.org/10.1063/5.0103866

Book(s) authored /edited

13. Edit Book entitled "Promoting the Advancement of Applied Sciences" Edited by **Dr. U.S. Negi and Dr. K.C. Petwal** (ISBN 978-93-87229-44-0) **Edition-2020**

14. **Chapter** in the Book "Promoting the Advancement of Applied Sciences" (ISBN 978-93-87229-44-0) **Edition-2020**

15. "A Text Book of Vector Calculus" **Author: Dr. U.S. Negi and Dr. K.C. Petwal** Published by ABS Books, New Delhi (ISBN 978-93-91002-22-0) **Edition-2022**

Total Number of Research Publications: 52 (Fifty-two)