



Dr. Rashmi

CONTACT INFORMATION

Assistant Professor (Contractual)
Department of Mathematics
Punjabi University, Patiala-147 002, India
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PERSONAL DETAILS

- Father's Name: Sh. Om Parkash
- Mother's Name: Smt. Shakuntla
- Marital Status: Married
- ORCID Id: <https://orcid.org/0000-0001-7447-1057/>

NATIONALITY

Indian

RESEARCH INTERESTS

- Geometry of Slant Lightlike Submanifolds
- Geometry of Riemannian Submersions and Riemannian Maps

EDUCATION

- **Ph.D.** degree awarded from Thapar University under the supervision of Dr. S. S. Bhatia, School of Mathematics, Thapar University, Patiala and Dr. Rakesh Kumar, Department of Basic and Applied Sciences, Punjabi University, Patiala with title **The Geometry of Slant Lightlike Submanifolds** in November 2016.
- Qualified **UGC-CSIR (NET)** held on 17-06-2012 under Roll No. 404135 vide CSIR letter no. 17-06/2012(i)-EU-V with **All India Rank 67/391**.
- **M.Sc.** (Mathematics) from Guru Nanak Dev University, Patiala, India, in 2009.
- **B.Ed.** (Teaching of Mathematics and Physical Sciences) from Punjabi University in 2007.

AWARDS

- Got second position in Intra College skills in Teaching Competition of Physical Sciences in 2007.

TEACHING EXPERIENCE

- Working as an Assistant Professor (Mathematics) (Contractual) in the Department of Mathematics, Punjabi University, Patiala, from 1st April, 2022 to till date.

- Worked as an Assistant Professor (Mathematics) (Contractual) in the Department of Basic and Applied Sciences, Punjabi University, Patiala, from 5th March, 2014 to 31st March, 2022.
- Worked as a Guest Faculty in Department of Statistics, Punjabi University Patiala for teaching Geometry, Trigonometry and Differential Calculus, Real Analysis to B.Sc. students from July 2013 to June 2016 and July 2018 to Dec 2020.
- Worked as a Guest Faculty in Department of Physics, Punjabi University Patiala for teaching Computer simulation in Physics to M. Sc. students from June 2020 to Dec 2020
- Worked as a Guest Faculty in Department of Chemistry, Punjabi University Patiala for teaching Basic Mathematics for Chemists to M. Sc. students from July 2013 to Dec 2013.
- Worked as a Guest Faculty in Department of Mathematics, Panjabi University Patiala for teaching Discrete Mathematics to M. Sc. students from Jan. 2011 to May 2011.

**TECHNICAL
PROFICIENCY**

- C language
- Latex

**ADMINISTRATIVE
AND ACADEMIC
RESPONSIBILITIES**

- Worked as Course coordinator of subjects:
Applied Math- I
Applied Math-II
Numerical Methods Lab
- Duty in physical verification of original documents
- All other duties given by HOD

**REFERENCES FOR
RECOMMENDATION**

- [Prof. \(Ex.\) Dr. R. K. Nagaich](#)
Department of Mathematics
Punjabi University, Patiala-147002.
Email: nagaich58rakesh@gmail.com
Contact No. +91- 94178-74900
- [Prof. S. S. Bhatia](#)
School of Mathematics
Thapar University, India
Email: ssbhatia@thapar.edu
Contact No.: +91-96460-42866
- [Prof. \(Ex.\) Dr. P. N. Pandey](#)
Department of Mathematics
University of Allahabad, Allahabad, India
Email: pnpiaaps@gmail.com
Contact No. +91- 9450609696

MEMBERSHIP OF RESEARCH BODIES

- Life member of International Association of Engineers.
- Life member of The Tensor Society, India
- Life member of Indian Society of Industrial and Applied Mathematics

REFERRING FOR THE JOURNALS

- Turkish Journal of Mathematics
- International Journal of Maps in Mathematics

REFERRED JOURNAL PUBLICATIONS

1. Garima Gupta, Rakesh Kumar, Rachna Rani and Rashmi Sachdeva, Harmonicity of almost Norden submersions between almost Norden manifolds, *Bull. Korean Math. Soc.*, **59**(2) (2022), 375–395. (SCI & SCOPUS Indexed). (March, 2022)
2. Rashmi Sachdeva, Rupali Kaushal, Garima Gupta and Rakesh Kumar, Conformal slant submersions from nearly Kaehler manifolds, *Int. J. Geom. Methods Mod. Phys.*, Article Id. 2150088 (2021), 1–27. (SCI & SCOPUS Indexed). (May, 2021)
3. Rupali Kaushal, Rashmi Sachdeva, Rakesh Kumar and R. K. Nagaich, Semi-invariant Riemannian submersions from nearly Kaehler manifolds, *Int. J. Geom. Methods Mod. Phys.*, **17**(7) (2020), 2050100 (15 pages). (SCI & SCOPUS Indexed). (June, 2020)
4. Rupali Kaushal, Rashmi Sachdeva, Rakesh Kumar and R. K. Nagaich, Generic Riemannian submersions from nearly Kaehler manifolds, *J. Tensor Soc.*, **13** (2019), 1–20. (December, 2019)
5. Garima Gupta, Rakesh Kumar and Rashmi Sachdeva, Geometry of lightlike submanifolds of golden semi-Riemannian manifolds, *J. Int. Acad. Phys. Sci.*, **23**(3) (2019), 211–227. (September, 2019)
6. Garima Gupta, Rashmi Sachdeva, Rakesh Kumar and R. K. Nagaich, Pointwise slant lightlike submanifolds of indefinite Kaehler manifolds, *Mediterr. J. Math.*, **15**(3) (2018), 1–17. (SCI & SCOPUS Indexed). (June, 2018)
7. Rashmi Sachdeva, Rakesh Kumar and S. S. Bhatia, Totally umbilical slant lightlike submanifolds of indefinite Kaehler manifolds, *Kyungpook Math. J.*, **57** (2017), 503–516. (SCOPUS Indexed). (October, 2017)
8. Rashmi Sachdeva, Rachna Rani, Rakesh Kumar and S. S. Bhatia, Study of totally contact umbilical hemi-slant lightlike submanifolds of indefinite Sasakian manifolds, *Balkan J. Geom. Appl.*, **22** (1) (2017), 70–80. (SCOPUS Indexed). (July, 2017)
9. Rashmi Sachdeva, Rakesh Kumar and S. S. Bhatia, The axioms of indefinite hemi-slant planes and spheres, *Lobachevskii J. Math.*, **38** (1) (2017), 125-130. (SCOPUS Indexed). (January, 2017)

10. Rashmi Sachdeva, Rakesh Kumar and S. S. Bhatia, Slant lightlike submersions from indefinite almost Hermitian manifold onto a lightlike manifold, *Ukrainian Math. J.*, **68**(7) (2016), 963–971. (SCI & SCOPUS Indexed). (December, 2016)
11. Rashmi Sachdeva, Rakesh Kumar and S. S. Bhatia, Warped product slant lightlike submanifolds of indefinite Sasakian manifolds, *Balkan J. Geom. Appl.*, **20**(1) (2015), 98–108. (SCOPUS Indexed). (June, 2015)
12. Rashmi Sachdeva, Rakesh Kumar and S. S. Bhatia, Totally contact umbilical slant lightlike submanifolds of indefinite Kenmotsu manifolds, *Tamkang J. Maths.*, **46** (2015), 179–191. (SCOPUS Indexed). (May, 2015)
13. Rashmi Sachdeva, Rakesh Kumar and S. S. Bhatia, Totally umbilical hemi-slant lightlike submanifolds, *New York J. Math.*, **21** (2015), 191–203. (SCI & SCOPUS Indexed). (April, 2015)
14. Rashmi Sachdeva, Rakesh Kumar and S. S. Bhatia, Non existence of totally umbilical proper slant lightlike submanifold of indefinite Sasakian manifolds, *Bull. Iranian Math. Soc.*, **40**(5) (2014), 1135–1151. (SCI & SCOPUS Indexed). (MR3273829)
15. Rashmi Sachdeva, Rakesh Kumar and S. S. Bhatia, Totally contact umbilical hemi-slant lightlike submanifold of an indefinite Cosymplectic manifold, Proceedings of International Conference on Information and Mathematical Sciences, Baba Farid College of Engineering and Technology, Bathinda, Punjab, during 24-26 October, 2013, 146–149.
16. Rashmi Sachdeva, Rakesh Kumar and S. S. Bhatia, Non existence of totally contact umbilical slant lightlike submanifolds of indefinite Cosymplectic manifolds, *ISRN Geometry*, Volume 2013, Article ID 231869, 1–8. (MR3095653)
17. Meraj Ali Khan, Siraj Uddin and Rashmi Sachdeva, Semi invariant warped product submanifolds of Cosymplectic manifolds, *J. inequal. Appl.*, **19** (2012), 1-12. (SCI Indexed).

BOOK/CHAPTER
PUBLICATIONS

1. Published a Book Chapter entitled **Slant Lightlike Submanifolds of Indefinite Kaehler Manifolds and their Warped Product Manifolds** in the Book entitled "Complex Geometry of Slant Submanifolds", Springer Nature Singapore Pvt Ltd (2022). <https://doi.org/10.1007/978-981-16-0021-0.12>.
2. Published a Book Chapter entitled **Warped Product Slant Lightlike Submanifolds on Indefinite Kaehler Manifolds** with page no. 33–44, in "Differential Geometry, Algebra and Analysis", Springer Proceedings in Mathematics & Statistics 327, Springer Nature, Singapore, (2020).
3. A book entitled **The Geometry of Slant Lightlike Submanifolds** jointly written with Dr Rakesh Kumar and Dr S. S. Bhatia has been published by Scholar's Press, International Book Market Service Limited, Mauritius on February, 2018 with ISBN 978-620-2-30702-4.

4. Published a Book Chapter **Slant Lightlike Submanifolds of Indefinite almost Contact Manifolds**, with page no. 46–56, in a book entitled “Differential Geometry, Functional Analysis and Applications”, published by the Narosa Publishing House Pvt. Ltd. ISBN 978-81-8487-421-1.

CITATIONS AS
PER GOOGLE
SCHOLAR

- **Citations:** 66
- **h-index:** 05
- **i10-index:** 02

PAPER
PRESENTATIONS

1. Presented a paper in International conference on **Differential Geometry and its Applications** organized by Department of P.G. Studies and Research in Mathematics, Kuvempu University , Karnataka during 04-05 March, 2022.
2. Presented a paper in 2nd International Conference on **Functional Materials and Simulation Techniques** jointly organized by UIS, Chandigarh University and Concordia University, Canada at Chandigarh University, Gharuan, Punjab(India) on 10-11 Jan, 2022.
3. Presented a paper in **87th Annual Conference of the Indian Mathematical Society** organized by Department of Applied Sciences, JNEC, MGM University, Aurangabad during 4-7 Dec, 2021.
4. Presented a paper in **Recent Advances in Differential Geometry and Topology CONIAPS-XXVII** organized by Department of Mathematics and Statistics, Central University of Punjab, Bathinda 26-28 oct, 2021.
5. Presented a paper in online National Conference on **Recent Trends of Innovations in Basic and Applied Sciences,(NCRTIBAS-2021)** organized by Department of School of Basic and Applied Sciences IEC University, Baddi, Himachal Pradesh, India on 22 oct, 2021.
6. Presented a paper in **CONIAPS-XXVI** organized by Department of Mathematics, Guru Ghasidas University, Bilaspur, India in association with International Academy of Physical Sciences, Prayagraj, India during December 18–20, 2020.
7. Presented a paper in **One Day National Seminar on Usage and Prospects of Mathematics** organized by Multani Mal Modi College, Patiala on 7th March, 2019.
8. Presented Paper in **Recent Developments in Mathematical Modelling and Fuzziology** at Chandigarh University on March 27-28, 2018.
9. Presented Paper in **International Conference on Emerging Areas of Mathematics for Science and Technology** held at Punjabi University, Patiala on 30 Jan to 1 Feb, 2015.

10. Presented Paper in **International Conference on Algebra, Geometry, Analysis and their Applications** held at Jamia Milia Islamia, Delhi on November 27-29, 2014.
11. Presented Paper in **Conference on Exploring Basic and Applied Sciences for Next Generation Frontiers**, Lovely Professional University, 14-15 November, 2014.
12. Presented Paper in **International Conference on Recent Trends in Mathematical Modeling and Statistical Analysis** held at Jagdish Chandra DAV College, Dasuya on September 30, 2014.
13. Presented Paper in **Information and Mathematical Sciences (IMS-13)** held at Baba Farid College of Engineering and Technology, Bathinda on October 24-26, 2013.
14. 6. Presented Paper in **International Conference on Special Functions and their Applications** at Thapar University, Patiala on 16-18 October, 2014.
15. Presented Paper in **International Conference on Differential Geometry and Relativity** held at Aligarh Muslim University on November 20-22, 2012.
16. Presented Paper in **International Conference on Differential Geometry, Functional Analysis and Applications** held at Jamia Milia Islamia, Delhi on September 8-10, 2012.

CONFERENCE/
WORKSHOPS
ATTENDED

1. Attended an international webinar on *Mathematics of computer vision* organized by Department of Mathematics and Humanities, Maharishi Mar-kandeshwar (Deemed to be University), Mullana-Ambala, India on Apr 28, 2022.
2. Attended an international webinar on *Applications of Differential Geometry* organized by Department of Mathematics and Humanities, Maharishi Mar-kandeshwar (Deemed to be University), Mullana-Ambala, India on Feb 10, 2022.
3. Participate in one week faculty programme on *Computing with Matlab and Latex Software: Indispensible tools for Researchers* jointly organized by Dept. of Mathematics, Baba Farid College, Bathinda, India and Dept. of Mathematics, Mizan-Tepi University, Ethiopia in collaboration with MathTech Thinking Foundation (MTTF), India on Jan 5-11, 2022.
4. Attended *NASI-TMC summer School on Differential Geometry* organised by Department of Mathematics and Statistics, Central University of Punjab, Bathinda during July 5-24, 2021.
5. Attended *International Conference on Riemannian Geometry and Applications- RIGA 2021* organised by University of Bucharest from Januray 15-17, 2021.

6. Participate in *Two days online National Workshop on Latex* organised by Department of Physics Khalsa college Patiala on March 1-2, 2021.
7. Participated in *International Workshop on Geometry of Continued Fractions: Ramanujan and his Successors* by Central University of Himachal Pradesh during September 14-15, 2020.
8. Attended National webinar on *Mathematics Education in India: Retrospect and Prospect* organised by Department of Education, Mizoram University, Aizwal on September 10th, 2020.
9. Participated in three days online workshop on *Mathematica for beginners(A Technical Computing System)* held by Chitkara University during August 17-19,2020.
10. Participated in online faculty development programme on *Online Teaching-Learning Practices: Challenges and Solutions* jointly organised by Department of Mathematics and Department of Computer Science, Sri Guru Teg Bahadur Khalsa College, Sri Anandpur Sahib(Punjab) from July 7-13, 2020.
11. Participate in *Ten days National Level Faculty Development Program on Latex for preparing Manuscripts* organised by Chitkara University from July 20-31, 2020.
12. Participate in Webinar on *Function of Brain and its Relationship with memory: How to memorise things quickly* organised by Dashmesh Khalsa College, Zirakpur on July 23, 2020.
13. Participated in *International Workshop on Robotics and Robot Operating System* organised by Department of Electronics and IQAC, MES College Erumely on June 13, 2020.
14. Participated in webinar on *How to write good Research Project Proposal* by Department of Electronics and Communication Engineering, Punjabi University Patiala on May 31, 2020.
15. Participated in two Day Short Term Course on *Disaster Management and its Mitigation* organized by Department of Civil Engineering, Aligarh Muslim University, Aligarh on 20-21 May, 2020 under TEQIP - III.
16. Participated in webinar on *Teaching and Learning modes Post Covid-19* by Department of Electronics and Communication Engineering, Punjabi University Patiala on April 20, 2020.
17. Participated in faculty development program on *Smart Materials and Nano Technology* organized by Punjabi University, Patiala from November 2-6, 2019.
18. Acted as expert during hands on practice sessions in Three days National Workshop on Latex and Technical writing by Punjabi University, Patiala from November 23-25, 2018.

19. Attended one day seminar on *Fullbright-Nehru fellowship Opportunities for Research and Professional Development in USA* on 5th April, 2016 by Research and Skill Development Centre, Punjabi University, Patiala.
20. Attended *ATM School on Geometry and Dynamics, IISER Mohali*, 17-22 December, 2014.
21. Attended *Teachers Enrichment Workshop on Finite Group Theory* at Punjabi University, Patiala on May 27-June 2, 2014.
22. Attended *Advanced School and Discussion Meeting on Knot Theory and its applications at IISER Mohali* on Dec 10-Dec 20, 2013.
23. Attended *National Workshop on Differential Geometry* held at Banasthali University, Rajasthan on October, 2013.
24. Attended *National Workshop on Latex* held at Chitkara University on July 8-10, 2013.
25. Attended Research Promotion *Workshop on Introduction to Graph and Geometric Algorithms* held at Thapar University, Patiala on October 28-30, 2010

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