

## Dr. Deepak Kumar

Assistant Professor  
Department of Mathematics  
Punjabi University Patiala  
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### Academic Profile

- **Ph.D.** in Mathematics awarded from Aligarh Muslim University, Aligarh in the year 2007.
- **M.Phil.** in Mathematics awarded from Aligarh Muslim University, Aligarh in the year 2004.
- M.Sc. (Mathematics) from Aligarh Muslim University, Aligarh in year 2002.
- B.Sc. (Hons.) from Aligarh Muslim University, Aligarh in year 2000.
- Intermediate from U.P. Board Allahabad in 1997.
- High School from U.P. Board Allahabad in 1995.

### Topic of Ph.D. Thesis and M.Phil. Dissertation

- On Derivations and Commutativity of Rings
- On Study of Derivations in Associative Rings and Near-rings

### Research Interest

- Algebra (Ring Theory)
- Additive Maps on Algebraic Structures

### Ph. D. Thesis Supervised/ Supervising

- Mr. Gurninder Singh Sandhu  
Topic : A study of Derivations in certain rings  
Status : Awarded on October 2020
- Mr. Bharat Bhusan  
Topic : A study of Derivations and Commutativity of rings with involution  
Status : Awarded on March 2023
- Mr. Sukhchain Singh  
Topic : Study of Derivations on Rings and Partially Ordered Sets  
Status : Registered on 16-06-2022

## Research Papers Published/Accepted

- Ideals and Symmetric  $(\sigma, \sigma)$ - Biderivations on prime rings published in *The Aligarh Bulletin of Maths* Vol. 25 No. 2 (2006), 9-18 (with Asma Ali).
- $(\theta, \Phi)$ -Derivation which acts as a homomorphism or as an anti-homomorphism in a prime ring published in *International Mathematical Forum* 2, 2007 no.23,1105-1110. (with Asma Ali).
- Generalized Derivations as a homomorphism or as an anti-homomorphism in a prime ring, published in *Hacettepe Journal of Mathematics and Statistics* Vol. 38 (1) (2009), 17-20 (with Asma Ali).
- On Generalized  $\Phi$ -Derivations of prime rings, published in *International Journal of Mathematical Sciences and Engineering Applications (IJMSEA)* ISSN 0973-9424, Vol. 4 No. III (2010) 277-283 (with P. Tripathi and A. K. Singh).
- On Generalized Derivations and commutativity of prime and semi-prime rings, accepted in *Hacettepe Journal of Mathematics and Statistics*.Vol.40(3) 367-374 (2011) (with Asma Ali and Phool Miyan)
- On Multiplicative (Generalized)-Derivations in Semiprime Rings, **Int. Journal of Pure and Applied Mathematics**, Vol. 106, Issue 1, (2016) 249-257
- On Generalized  $\tau$  - Derivations of Prime Rings, *Int. Journal of Advance Research in Science and Engineering* Vol. 5, Issue 3, (2016) 439-442
- Symmetric Bi- Derivations on Semiprime Rings, **Int. Journal of Science Technology and Management**, (2016)
- On commutativity of semiprime rings with multiplicative (generalized)-derivations, *Journal of Mathematics Research*, Vol. 9(2), 9-17 (2017)
- A note on derivations and Jordan ideals of prime rings, *AIMS Mathematics* Vol. 2(4),580-585, (2017) 2473-6988 Science Citation Index Expanded (IF 1.427)
- Remarks on derivable maps of semiprime rings, *Journal of Comp. sci. and computational Mathematics* Vol. 7(4), (2017) 119-123
- Derivable mappings and commutativity of associative rings, *Italian Journal of Pure and Applied Mathematics*, Vol40(2), 376-393-2018 **IF: 0.17 WOS (Scopus Indexed)**
- A study of derivable mappings of semiprime rings, *International Journal of Algebra and Statistics*, Vol 7 (1-2), 19-26 (2018)
- Annihilator conditions of multiplicative reverse derivations on prime rings, *International Electronic Journal of Algebra*, Vol. 25, 87-103 (2019) **WOS Scopus Indexed IF.: 0.28**

- Generalized derivations acting as homomorphisms or anti-homomorphisms on Lie ideals, Palestine Journal of Mathematics, Vol. 7 (Spl.) 137-142, 2018 Scopus Indexed
- Generalized derivation in prime ring with involution, International Journal of Management Technology and Engineering, Vol.8(12) (2018)
- Derivations satisfying certain identities on rings and algebras, Facta Universitatis: Mathematics and Informatics, Vol 34(1), 85-99 (2019) WoS Indexed (ESCI)
- Derivations satisfying certain algebraic identities on Lie ideals, Mathematica Moravica, Vol. 23 (2), 79-86 (2019)
- On additivity of derivations, Carpathian Mathematical Publications, Vol. 11(2), 453-462 (2019), ESCI Scopus Indexed (SJR: 0.41)
- Generalized  $(\theta, \phi)$ -derivations and Jordan ideals in prime rings, Acta Universitatis MatthiaeBelii, series Mathematics, Vol. 27, 83-93 (2019)
- On generalized derivations and commutativity of associative rings, Discussiones Mathematicae - General Algebra and Applications, Vol. 40 (1), 49-62 (2020)
- A note on \*-reverse derivations in rings, Advances in Mathematics: Scientific Journal, Vol. 9(7), 4383-4388 (2020)
- On generalized \*-reverse derivable maps, Proyecciones, Journal of Mathematics, Vol.40(3), 767-778 (2021)
- A classification of generalized derivations in rings with involution, FILOMAT, Vol. 35(5), 1439-1452 (2021) SCI (I.F. 0.848)
- Identities involving skew Lie product and pair of generalized derivations in prime rings with involution, Armenian Journal of Mathematics, (2021) 1-18, Vol. 13 Issue 9.
- On generalized  $(\alpha, \beta)$ -derivations and Lie ideals of prime rings, Rendiconti del Circolo Matematico di Palermo Series 2, 15-(2021)
- Some result on \*-differential identities in prime rings, Asian European Journal of Mathematics, 2250159 (1-12) (2022) .
- On \*-reverse derivation in prime rings, AIP conference proceedings, Vol. 2357, 120006 (1-6) (2022)
- On centrally extended Jordan Derivations and related Maps in Rings, *Hacettepe Journal of Mathematics and Statistics* (2022) (SCI and Scopus Indexed) Impact Factor 0.867
- Centrally extended \*-reverse derivation in semiprime rings in Advances in Pure and Applied Algebra : Proceedings on CONIAPS XXVIII International Conference 2021, by De Gruyter Proceedings in Mathematics p 59-64 (2023)
- Centrally-extended generalized Jordan derivations in rings, Ann. Annales Universitatis Paedagogicae Cracoviensis Studia Mathematica 22 33-47 (2023)

#### Paper presented/attended in Seminar/Conferences/Symposium

- Presented a paper entitled Generalized Derivations in Prime Rings with Involution in International Conference on MASHS at Sri, S. Ramasamy Naidu Memorial College, Sattur, Tamil Nadu Dec 14, 2018.

- Presented a paper entitled Multiplicative (Generalized  $\delta$ )-derivations with central values on semiprime rings in International conference on Algebra and Its applications at Department of Mathematics Aligarh Muslim University , Aligarh on Nov 12-14 2018
- Presented a paper entitled Symmetric Bi- Derivations on Semiprime Rings in 5th International Conference on Science, Technology and Managements, July30,2016 at Conference World India International Centre , New Delhi.
- Presented a paper entitled On Generalized  $\delta$ -derivations of Prime Rings in 4th International Conference on Recent Innovations in Science, Engineering and Managements, March 20,2016 at Conference World India International Centre , New Delhi.
- Presented a paper entitled Generalized Derivation acts as a Homomorphism and Anti-homomorphisms National Conference on Innovative Trends in Mathematical Sciences, March 30,2015 at Department of Mathematics and humanities, Maharashi Markandeswar University, Mullana.
- Presented a paper entitled On Multiplicative (Generalized)-derivations in Prime and Semiprime rings International Conference on Algebra and Its applications, Dec.15-17,2014, at Department of Mathematics, Aligarh Muslim University, Aligarh
- Presented a paper entitled On Generalized  $(\theta, \Phi)$ -Derivations on Prime Rings ,Exploring Basic and Applied Sciences for next Generation Froentiers, Nov.14-15, 2014 at Lovely Faculty of Technology and Sciences, Lovely Professional University, Punjab
- Presented a paper entitled On Generalized Derivations of Prime Rings Recent Trends in Algebra and Analysis with applications, Feb. 12-14,2014 at Department of Mathematics, Aligarh Muslim University, Aligarh
- Presented a paper entitled On Commutativity of Rings in National Seminar on Mathematics and its Applications, Dec.20,2012 at Department of Mathematics, Punjabi University Patiala.
- Presented a paper entitled On Generalized Derivations and Commutativity of prime and semi prime rings in 13<sup>th</sup> International Conference of the International Academy of Physical Sciences June 14-16, 2011 held in University of Petroleum and Energy Studies, Dehradun.
- Presented a paper entitled Generalized Derivations as a homomorphism or as an anti-homomorphism in a prime ring in the conference International Academy of Physical Sciences Feb 20, 2010 held in University of Allahabad.
- Presented a paper entitled Derivations acts as a homomorphism or as an anti-homomorphism on prime rings Feb 22, 2010 held in Department of Mathematics, A.M.U. Aligarh.
- Participated in International Symposium on Theory of rings and Modules held in the Department of Mathematics A.M.U. Aligarh during May07-08,2003.
- Attended the Conference on “Industrial Mathematics” in Jamia Milia Islamia University, Delhi during Nov 10,2004.
- Attended a Seminar on Operations Research and its Applications to Engineering and Management on May 08,2010 held in I.T.S. Engineering College Greater Noida.

### Teaching Experience

- Presently working as an Assistant Professor in Department of Mathematics, Punjabi University, Patiala from July 2012 to till date.
- Worked as an Assistance Professor in the Department of Applied Science and Humanities, *Accurate Institute of Management and Technology, Greater Noida* (Affiliated to U.P.T.U. Lucknow) from August 2011 to July 2012.

- Worked as an Assistance Professor in the Department of Applied Science and Humanities, *ITS Engineering College, Greater Noida* (Affiliated to U.P.T.U. Lucknow) from July 2008 to July 2011.
- Worked as a lecturer in the Department of Applied Science and Humanities in *United College of Engineering and Research, Greater Noida* (Affiliated to U.P.T.U. Lucknow) from July 2006 to July 2008.
- Taught under graduate classes as a Research Associate in the *Department of Mathematics A.M.U. Aligarh* from 2005 to 2006.

#### Reviewer

- Hindawi Portfolio Journals

#### Awards

- Awarded as a **Star Performer** of ITS Engineering College in Faculty Award Function.

#### References

**1. Prof. M. Ashraf**

Chairman  
Department of Mathematics  
A.M.U., Aligarh

**2. Prof. M. A. Quadri**

Ex-Chairman  
Department of Mathematics  
A.M.U., Aligarh

**(Dr. Deepak Kumar )**