

CURRICULUM VITAE

Pankaj Kumar Das

Professor

Department of Mathematical Sciences

Tezpur University, Napaam

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Research interest: Coding Theory

Educational qualification: [1]. B.Sc from Goalpara College (Gauhati University)
[2]. M.Sc from Delhi University
[3]. M. Phil. from Delhi University
[4]. Ph. D. from Delhi University

(Thesis entitled: **Codes detecting/correcting periodic and solid burst errors**)

Details of employment: [1] 24th Aug. 2024 to till date - Professor,
Department of Mathematical Sciences, Tezpur University
[1] 28th Sept. 2019 to 23rd Aug. 2024- Associate Professor,
Department of Mathematical Sciences, Tezpur University
[2] 28th Sept. 2015 to 27th Sept. 2019 - Assistant Professor,
Department of Mathematical Sciences, Tezpur University
[3] 16th July 2002 to 24th Sept. 2015 - Assistant Professor,
Department of Mathematics, Shivaji College, Delhi University.

Awards / Fellowships: [1] UGC NET Qualified.
[2] National Merit Scholarship in 10th and 12th level.
[3] Teaching Excellence Award for Innovation, Delhi
University, May 1, 2015.
[4] 3rd prize in the R.S. Varma Memorial Student Paper Competition,
Forum for Interdisciplinary Mathematics in IMST 2009-FIM 17,
University of Bohemia, Czech Republic, May 23-26, 2009.

Invited Talk:

- International Conference on Advances in Pure and Applied Mathematics, Shyam Lal College, University of Delhi, Feb. 8-10, 2024.
- GANITA 2022, Shyam Lal College, Delhi University, 27th Apr. 2022.
- Invited talk on Three Days National Conference on International Pi Day, Manipur University, March 12-14, 2022.
- National Webinar on Basic Coding Theory & its Applications, Sadiya College, Aug. 14, 2021.
- Invited talk on Latex on departmental workshop in InSCIgnis21, Tezpur University, Feb. 26-28, 2021.

- Invited talk in 2-days National Workshop on Cryptography, Department of Mathematics, University of Science and Technology, Meghalaya (USTM), Sept. 25- 26, 2018.
- Invited lecture at Kendriya Vidyalaya, No. 1, Tezpur, May 18-29, 2016.

Ph.D. Students:

- Subodh Kumar (registered at Delhi University) (Completed, September 2021)
- Nabin Kumar Pokhrel (registered at Tezpur University) (Completed, January 2023)
- Letminthang Haokip (registered at Tezpur University) (Completed, October 2023)
- Achal Agarwal (registered at Tezpur University) (Ongoing)
- Puspita Paul (registered at Tezpur University) (Ongoing)
- Aklima Begum (registered at Tezpur University) (Ongoing)
- Roshan Bhattarai (registered at Tezpur University) (Ongoing)

Presentation in Seminar/ Conferences:

- ICMMAAC-21, JECRC University, Jaipur (Raj.), India, August 5-7, 2021.
- 26th International Conference of International Academy of Physical Sciences on Advances in Algebra and Analysis at Marwadi University, Rajkot, Gujrat, December 18-20, 2020.
- National Conference on Application of Mathematical Tools in Social Sciences and Sciences (Online), Zakir Husain Delhi College, University of Delhi, October 17-18, 2020.
- International Conference on Discrete Mathematics and its Applications to Network Science (ICDMANS), BITS Pilani, Goa, July 7 - 10, 2018.
- Indian Science Congress, Manipur University, Imphal, Manipur, March 16-20, 2018.
- National Seminar on Science and Technology for Human Welfare, IASST, Guwahati, Feb. 27, 2017.
- National Conference on Mathematics and its Applications (NCMA-2016), Cotton College State University, Guwahati, Oct. 21-22, 2016.
- International Conference on Current Trends in Graph Theory and Computation, South Asian University, Sept. 17-19, 2016, New Delhi
- IMST 2009-FIM xvii, University of Bohemia, Plzen, Czech Republic, May 23-26, 2009.

Participation in Conference/ Workshop/Program:

- 1-week FDP, organized by the Department of Chemistry and IQAC Kirori Mal College, DU on Environmental Sciences and Public Health, Feb.1-5, 2022.
- Pedagogical Training for Mathematics Teachers, Tezpur University, Dec. 25-30, 2019.
- Science Academies' Refresher Course on Analysis, Feb. 18 – Mar. 02, 2019.
- A 2 Days Workshop on Cyber Security: Issues and Challenges, Dept. of Computer Science & Engineering, Tezpur University, Jan. 29-30, 2018.
- One day Workshop cum Training on Patent Search and Analysis, Tezpur University Intellectual Property Right (IPR) Cell, Feb. 25, 2017.
- Science Academies' Lecture Workshop on Theory of Equation, Department of Mathematics, Shivaji College, University of Delhi, 16-17 Oct. 2014.
- Refresher Course in Mathematical Sciences, CPDHE, University of Delhi, Delhi, Nov. 24-Dec.13, 2014.
- Refresher Course in Mathematics, ASC, Lucknow University, Feb. 14.- Mar. 07, 2014.

- One day Brainstorming Session of Teacher Empowerment Program, Centre for Excellence in Interdisciplinary Mathematics in IP University, Kashmere Gate, Delhi-6, May 16, 2009.
- Eighteenth International Conference of Forum for Interdisciplinary Mathematics on Interdisciplinary Mathematical & Statistical Techniques (IMST 2009-FIM XVIII), Jaypee University of Information Technology, Waknaghat (HP), Aug. 2-4, 2009.
- Pre-ICM International Convention on Mathematical Sciences, University of Delhi, India, Dec. 18-20, 2008.
- Symposium on AAEECC-17 & IWAA workshop, Department of Mathematics, Indian Institute of Science, Bangalore, Dec. 16-20, 2007.
- Orientation course, CPDHE, University of Delhi, Delhi, May 06- June 03, 2008.
- A course on Interception and Analysis of Digital Signals under Continuing Education Program of DRDO, SAG, Delhi, India, Nov. 19 -29, 2001.

Publications of last 7 years (out of in total 39):

1. A. Radonjic, P.K. Das and N.K. Pokhrel (2024), "Integer codes correcting single adjacent transposition errors", IEEE Communications Letters , 28(7), 1499-1503.
2. A. Radonjic, P.K. Das and V. Vujicic (2024), "Integer codes correcting burst errors within one byte and single errors within two bytes", Cryptography and Communications , 16, 961–974.
3. P.K. Das and S. Kumar (2024), "Linear codes correcting repeated bursts equipped with homogeneous distance", Theory of Computing Systems , 68(2), 1-17.
4. N.K. Pokhrel and P.K. Das (2024), "Low-density and high-density asymmetric CT-burst correcting integer codes", Advances in Mathematics of Communications , 3(1), 842-856.
5. P.K. Das and N.K. Pokhrel (2024), "Asymmetric solid burst correcting integer codes", Kuwait Journal of Science , 51(1), 100122.
6. L. Haokip and P.K. Das (2023), "Weight distribution of low-density periodic random errors and their correcting codes with error decoding probability", Prikladnaya Diskretnaya Matematika , 62, 106-118.
7. P. K. Das (2023), "Location of solid burst within two adjacent sub-blocks", Journal of Algebraic Systems , 11(1), 137-147.
8. N.K. Pokhrel and P.K. Das (2023), "Probability of erroneous decoding for integer codes correcting burst asymmetric/unidirectional/symmetric errors within a byte and up to double asymmetric errors between two bytes", Kuwait Journal of Science , 50(2), 75-82.
9. N.K. Pokhrel, P.K. Das and A. Radonjic (2023), "Integer codes capable of correcting burst asymmetric errors", Journal of Applied Mathematics and Computing , 69, 771-784.
10. A. Radonjic, N.K. Pokhrel and P.K. Das (2023), "Integer codes correcting burst errors within two bytes", Computational and Applied Mathematics , 42, 128.
11. P.K. Das and L. Haokip (2022), "Codes with burst distance and periodical burst errors", Journal of Computational and Applied Mathematics , 411, 114240.
12. P.K. Das and L. Haokip (2022), "Low-density periodical burst correcting codes with decoding probability and detection capability", Journal of Applied Mathematics and Computing , 68, 4537-4557.
13. P.K. Das and S. Kumar (2022), "Location of burst and repeated burst error in single and adjacent sub-blocks", TWMS Journal of Applied and Engineering Mathematics , 12 (3), 996-1003.

14. N.K. Pokhrel and P.K. Das (2022), “Unidirectional solid burst correcting integer codes”, Journal of Applied Mathematics and Computing , 68, 3163-3178.
15. P.K. Das and L. Haokip (2022), “Periodical burst error correcting codes with decoding error probability”, Discrete Mathematics Letters , 8, 49-56.
16. P.K. Das and N.K. Pokhrel (2021), "Asymmetric CT-Burst Correcting Integer Codes," 2021 5th International Conference on Information Systems and Computer Networks (ISCON) , 1-5, IEEE, DOI: 10.1109/ ISCON52037.2021.9702506.
17. P.K. Das and L. Haokip (2021), “Correction and Weight Distribution of Periodic Random Errors”, Science and Technology Asia , 26 (4), 39–48, Dec. 2021.
18. P.K. Das and S. Kumar (2021), “Location and weight distribution of key errors”, Matematicki Vesnik , 73(1), 43–54
19. P.K. Das and S. Kumar (2020), “Correcting key errors blockwise and correcting low density key errors”, International Journal of Mathematical, Engineering and Management Sciences , 5(6), 1234-1248.
20. P.K. Das and S. Kumar (2020), “Bounds on Linear Codes Capable of Detecting, Locating and Correcting of m-Repeated Burst Errors Prevailing in Multiple Sub-Blocks”, Proyecciones Journal of Mathematics , 39 (6), 1577-1596.
21. P.K. Das (2019), “Codes detecting, locating and correcting random errors occurring in multiple sub-blocks”, Proyecciones Journal of Mathematics , 38(1), 129-144.
22. P.K. Das (2018), “A class of solid burst error correcting codes derived from a reversible code”, University Politehnica of Bucharest Scientific Bulletin, Series A , 80(4), 153-162.
23. L.K. Vashisht, S. Garg, Deepshikha, P.K. Das (2018), “On generalized weaving frames of Hilbert spaces”, Rocky Mountain Journal of Mathematics , 48 (2), pp. 661-685.
24. P.K. Das (2018), “Error Locating Codes and Extended Hamming Code”, Mathematicki Vesnik , 70(1), 89-94.

Professional Activities:

- *Editorial Board Member*
 1. Bulletin of Pure and Applied Sciences - Mathematics and Statistics.
 2. Cultural and Historical Heritage: Preservation, Presentation, Digitalization (KIN Journal).
- *Reviewer of*
 1. American Mathematical Reviews (MathSciNet)
 2. IEEE Wireless Communications Letters
 3. IEEE Access
 4. IEEE Transactions on Computers
 5. Cryptography and Communications
 6. Italian Journal of Pure and Applied Mathematics
 7. Khayyam Journal of Mathematics
 8. European Journal of Mathematics
 9. Scientific Programming
 10. Computational and Applied Mathematics
 11. Journal of Applied Mathematics and Computing
