FACULTY PROFILE

Name: Dr. Ram Krishna Verma

Designation: Assistant Professor

Email: ramv@srmist.edu.in

Professional Qualification:

- ➤ Doctor of Philosophy (2021), "Quantum Codes from Skew and Repeated Root Constacyclic Codes", Mathematics, Indian Institute of Technology Patna, Bihar, India.

- ➤ Master of Science (2014), Mathematics, University of Lucknow, Lucknow, India.

- ➤ Bachelor of Science (2012), Mathematics, Physics, Chemistry, University of Lucknow, Lucknow, India.

Publications (Journals & Conferences):

- ➤ R. K. Verma, O. Prakash, H. Islam and A. Singh: Quantum codes from skew constacyclic and additive skew constacyclic codes, Eur. Phys. J. Plus 137(2), 213 (2022). DOI:10.1140/epjp/s13360-022-02429-9. SCI, I.F.-3.758.

- ➤ R. K. Verma, O. Prakash, A. Singh and H. Islam: New Non-Binary Quantum Codes from Skew Constacyclic Codes over Non-Chain ring $R_{k,m}$ Adv. Math. Commun., (2022). DOI:10.3934/amc.2021028. SCI, I.F.-1.078.

- ➤ S. Rani, R. K. Verma and O. Prakash, Quantum Codes from Repeated-Root Cyclic and Negacyclic Codes of Length $4P^s$ over F_{P^s}. Internat. J. Theoret. Phys. 60(4) (2021), 1299-1327. SCI, I.F.-1.308.

- ➤ H. Islam, O. Prakash and R. K. Verma, New quantum codes from constacyclic codes over the ring $R_{k,m}$, Adv. Math. Commun. 16(1) (2022), 17-35. SCI, I.F.-1.078.

- ➤ O. Prakash, S. Yadav, and R. K. Verma, Constacyclic and Linear Complementary Dual Codes Over $F_q + uF_q$, Defence Sci. J. 70(6) (2020), 626-632. SCI, I.F.-0.707

- ➤ H. Islam, R. K. Verma and O. Prakash, A family of constacyclic codes over

$F_{P^m}[v, w]/\langle v^2 - 1,\ w^2 - 1, vw - wv \rangle$, Int. J. Inf. Coding Theory 5(3-4) (2020), 198-210.

- O. Prakash, A. Singh, R. K. Verma, P. Sole, W. Cheng DNA codes from cyclic and skew cyclic codes over $F_4[v]/\langle v^3 \rangle$, Entropy 25(2) (2023), 239-252. SCI, I.F.-2.738.

- O. Prakash, R. K. Verma and A. Singh: Quantum and LCD codes from skew constacyclic codes over a finite non-chain ring, Quantum Information Processing 22(5) (2023), 200. SCI, I.F.-1.965.

- H. Islam, O. Prakash and R. K. Verma, Quantum codes from the cyclic codes over $F_p[v, w]/\langle v^2 - 1,\ w^2 - 1, vw - wv \rangle$, Springer Proceedings in Mathematics & Statistics 307 (2019), https://doi.org/10.1007/978-981-15-1157-8_6.

- R. K. Verma, O. Prakash and A. Singh, Quantum codes from skew constacyclic codes over $F_{P^m} + vF_{P^m} + v^2 F_{P^m}$, In 2020 Algebraic and Combinatorial Coding Theory (ACCT) IEEE, (2020) 156-161, https://doi.org/10.1109/ACCT51235.2020.9383402.

Awards and Achievements

- Qualified UGC CSIR NET Exam (CSIR JRF) December, 2014.

- Best oral presentation award in the National Science Day Presentation Organized by Department of physics, Indian Institute of Technology Patna, Bihar, India

Workshops/Seminars/FDPs

- Given an invited talk in 2023 IEEE SPS Seasonal School on Quantum Computing and Machine Learning organized by IEEE Signal Processing Society IIT Delhi. Title of the Talk-Construction of Quantum Error Correcting Codes.
- R. K. Verma and O. Prakash: Constacyclic codes over non-chain ring $F_p[v, w]/\langle v^2 - 1, w^2 - 1, vw - wv \rangle$, International Conference on Recent Advance in Mathematics and Scientific Computing, Magadh University, Bodh Gaya, India during September 18-19, 2018.
- R. K. Verma and O. Prakash: Constacyclic codes over non-chain rings, International Conference on Recent Advances in Pure and Applied Mathematics, Delhi Technological University, Delhi, India during October 23-25, 2018.
- R. K. Verma and O. Prakash: Structure of -constacyclic codes of length $n2^s$ over $F_{2^m} + uF_{2^m} + vF_{2^m} + uvvF_{2^m}$, International Conference on Algebra and Related Topics with Applications, Aligarh Muslim University, Aligarh, India during 17-19 December 2019.
- R. K. Verma, O. Prakash and A. Singh: Quantum codes from skew constacyclic codes over $F_{p^m} + vF_{p^m} + vF_{p^m}$, Seventeenth International Workshop on Algebraic and Combinatorial Coding Theory ACCT 2020, Bulgarian Academy of Sciences, Bulgaria during October 11-17, 2020.

- ➢ R. K. Verma Quantum codes from skew constacyclic codes over non-chain rings, International Conference on Quantum Computing and Communications (QCC2023) February 09-11, 2023, Baba Farid College Bathinda, Punjab, India.
- ➢ Workshop on Positive Characteristics methods in Commutative Algebra. June 26-30, 2017 Organized by: Indian Institute of Technology, Bombay, India.
- ➢ The SEAMS-UGM-ITB Summer Course on Coding Theory and Cryptography. July 15-26, 2019 Organized by: Math and Natural Sciences Universitas Gadjah Mada, Yogyakarta, Indonesia.
- ➢ International online workshop on Advanced Topics in Mathematics. October 01-06, 2020 Organized by: Center for applied mathematics IIIT Naya Raipur, India.
- ➢ Online workshop on Quantum computing. October 19-23, 2020 Organized by: Sri Ramkrishna Engineering College, Coimbatore, Tamil Nadu, India.

Work Experience: Total Teaching Experience: **1 year 2 months**

- ➢ Presently working as a Assistant Professor in SRM Institute of Science and Technology, Delhi-NCRCampus, Ghaziabad (INDIA) from 2022 to till date.

Professional Memberships:

Life Membership of INDIAN MATHEMATICAL SOCIETY (L/2023/054).