Ankit
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Department of Mathematics
IIT Delhi

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EDUCATION

Degree	Institution	CPI/%	Year
Ph.D. Mathematics	IIT Delhi	9.0	2027(tentative)
M.Sc. Mathematics	IIT Delhi	8.72	2020 - 2022
B.Sc. (H) Mathematics	University of Delhi	9.63	2017 - 2020

RESEARCH INTERESTS

- Algebraic Coding Theory
- Cryptography

My primary interest lies in algebraic coding theory, specifically **Algebraic Geometry codes and Codes over Rings**.

PUBLICATIONS & PREPRINTS

- **Ankit Yadav**, Vidya Sagar, Ritumoni Sarma: ACD codes and cyclic codes over Z_2R_k. Computational and Applied Mathematics, 44, 29 (2025), https://doi.org/10.1007/s40314-024-02984-0

- Vidya Sagar, **Ankit Yadav**, Ritumoni Sarma: Constacyclic codes over $\frac{Z_2[u]}{<u^2>} \times \frac{Z_2[u]}{<u^3>}$ and the MacWilliams identities. Applicable Algebra in Engineering, Communication and Computing, (2024), https://doi.org/10.1007/s00200-024-00662-6

CONFERENCES

- Presented a paper titled "Additive Complementary Dual Codes and Cyclic Codes over the mixed alphabet Z_2R_k" at the **16th International Conference on Finite Fields and Their Applications 2025 (Fq16)** held in São Carlos, SP, Brazil, from July 7-11, 2025.

- Presented a paper titled "Additive Complementary Dual codes over Z_2R_k" at the **39th Annual Conference of the Ramanujan Mathematical Society** held in CHRIST (Deemed to be University), Bengaluru, December 27-29, 2024.

PROJECTS

- **M.Sc. Thesis Work, Commutative Algebra, IIT Delhi** (August 2021 - November 2021)
  o Building up the theory from the Modules to the Noetherian Rings
  o Study of Rings and Ideals, Modules, Tensor Products, Noetherian Rings
  o Under the supervision of Prof. Vivek Mukundan

WORKSHOPS

- Attended an online seminar titled **The 3rd International Coding Theory Seminar (3rd ICTS)**, Thailand (June 21, 2024)
- Attended an online seminar titled **The 2nd International Coding Theory Seminar (2nd ICTS)**, India (March 25, 2024)
- Attended a two-day online workshop titled **Algebraic Codes and MAGMA Computation** organised by the Department of Mathematics, IIT Patna (November 10-11, 2023)
- Attended **CIMPA Research School on Post-Quantum Cryptography** organised by the Department of Computer Science, Pondicherry University, in association with CIMPA, France (December 10-21, 2023)
- Attended National workshop titled **Advanced Topics in Finite Fields** held at The Institute of Mathematical Sciences, Chennai (July 10-29, 2023)

- Attended a one-day workshop titled **Algebra and its Applications** organised by the Department of Mathematics, ARSD College, New Delhi (March 2019)

AWARDS & ACHIEVEMENTS

- **Joint CSIR-UGC NET June 2025:** Secured All India Rank 80
- **Graduate Aptitude Test in Engineering (GATE) 2022:** Secured All India Rank 120
- **Joint CSIR-UGC NET June 2022:** Secured All India Rank 185
- **Joint Admission Test (JAM) 2020**: Secured All India Rank 89
- Silver medalist in graduation
- Recipient of **Scholarship for Promotion of Science Education (POSE)**, DST - Haryana (2020 - 2022)
- Recipient of **Scholarship for Promotion of Science Education (POSE)**, DST - Haryana (2017 - 2020)
- Recipient of **Haryana Ambedkar Scholarship Yojana** (2015)

TECHNICAL SKILLS

- **Languages:** C, C++
- **Tools:** MAGMA, LaTeX, Mathematica, MS Office