Date: Monday, 1st December, 2025.

Time: 3 P.M.

Google Link: https://meet.google.com/rdc-zhfq-jez

Title: Algebraic Codes over Finite Rings: Structure, Properties, and Applications

Abstract:
This presentation provides a concise overview of my research on algebraic codes over finite rings, focusing on cyclic, constacyclic, additive, and complementary-dual (LCD/LCP) structures. I develop unified structural characterizations, decomposition theorems, and new code constructions over rings. Their Gray images give rise to binary, mixed-alphabet, and quantum stabilizer codes with improved distance properties and enhanced algebraic structure.