National Institute of Technology Rourkela

Progress Seminar

Seminar Title	: Characterization of k−generalized Fibonacci numbers as concatenations and differences of repdigits
Speaker	: Monalisa Mohapatra (Rollno : 522ma1004)
Supervisor	: Prof. Gopal Krishna Panda
Venue	: Mathematics Department Seminar Room
Date and Time	: 06 Feb 2025 (11.15 am)

Abstract : The k-Fibonacci sequence is a generalization of the classic Fibonacci sequence with some fixed integer $k \ge 2$. This study focuses on identifying all k-Fibonacci numbers that can be represented as the concatenation of three repdigits and all the k-Fibonacci numbers that can be expressed as differences of two repdigits. The proof involves the application of Baker's theory of linear forms in logarithms of algebraic numbers and the Baker-Davenport reduction procedure.

Keywords: k−Generalized Fibonacci numbers, repdigits, linear forms in logarithms, Baker-Davenport reduction method