



ST. XAVIER'S COLLEGE, MAPUSA GOA

College with Potential for Excellence
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 Awarded DBT STAR College Scheme

Nature of Event (Workshop, Guest Lecture, Add-on Course, Seminar, etc.)	Guest Lecture
Name of Department	Mathematics
Faculty In-Charge	Mr. Gajanan R Parab
Stratum of Event (College, State, Regional, National)	College
Title of Event	Estimations on Primes and its Applications
Date of Event	01 March 2023
Venue	Lecture Hall 212
Resource Person details	Dr. Saranya G Nair Assistant Professor in Mathematics Department of Mathematics Birla Institute of Technology and Science, Pilani K.K.Birla Campus, Goa
Objective/ Scope of Event	To introduce the prime numbers (which are building blocks of number theory), its role in numbers theory and some of its historic occurrences.
Particulars of Event	<p>The resource person Dr. Saranya Nair commenced with the basics of number theory starting with the Fundamental theorem of Arithmetic, followed by the Theorem of Euclid from which she deduced the Euclid Mullin sequence. The Sieve of Eratosthenes was then explained which interested many of the participants. Several interesting properties of numbers in general and prime numbers in particular were displayed to the students and explained with extremely lucid techniques accessible to First Year students. She demonstrated how the prime counting function to count the number of primes less than or equal to a given number uses Mathematical analysis in explaining the Euler analysis in number theory which was postulated by Dirichlet some 100 years ago. She further explained how Chebyshev's result enabled the conclusion of Bertrand's postulate.</p> <p>As the lecture concluded, students were made aware that important branches in Mathematics like Complex Analysis had their origin in Number theory – because early attempts to prove prime number theory stimulated the development of the theory</p>

	of functions of complex variables, especially the theory of entire functions.
Outcome of Event	Participants were able to admire the beautiful properties and span of prime numbers and they also got to know the historic development of primes.
Feedback	Participants really enjoyed the lecture.
Total No. of Participants	65

Photographs



