2024

A Report

on

A Seminar on Existence of Basis and its Applications (SEBA-2024)

(23rd April, 2024)

Organized by:

Department of Mathematics,

Jeel Goswami College of Science & Research,

Faculty of Science,

Monark University

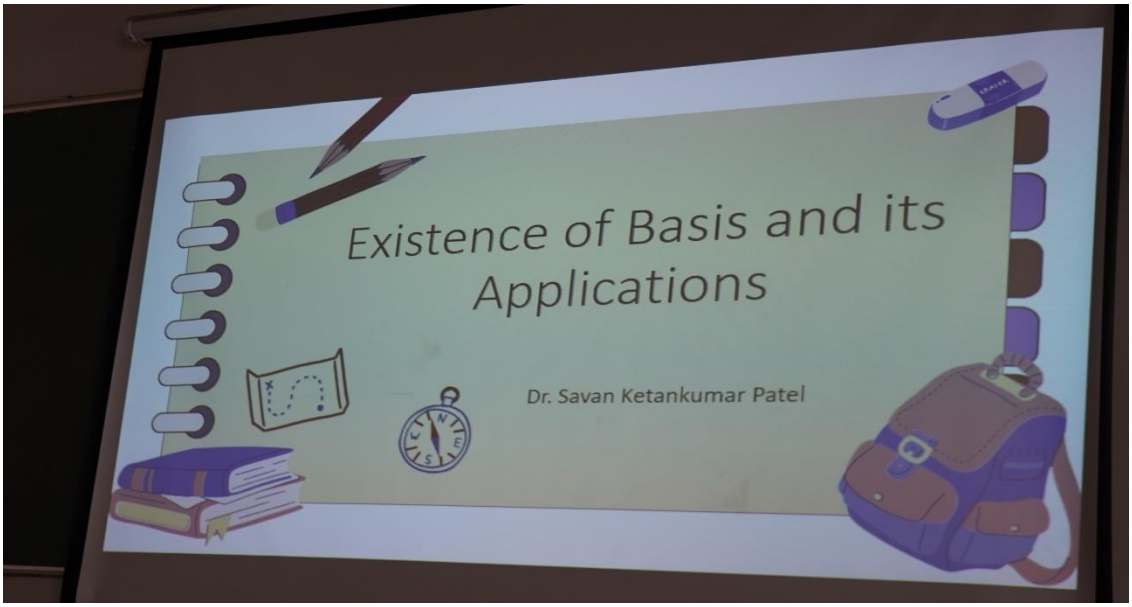
About the event:

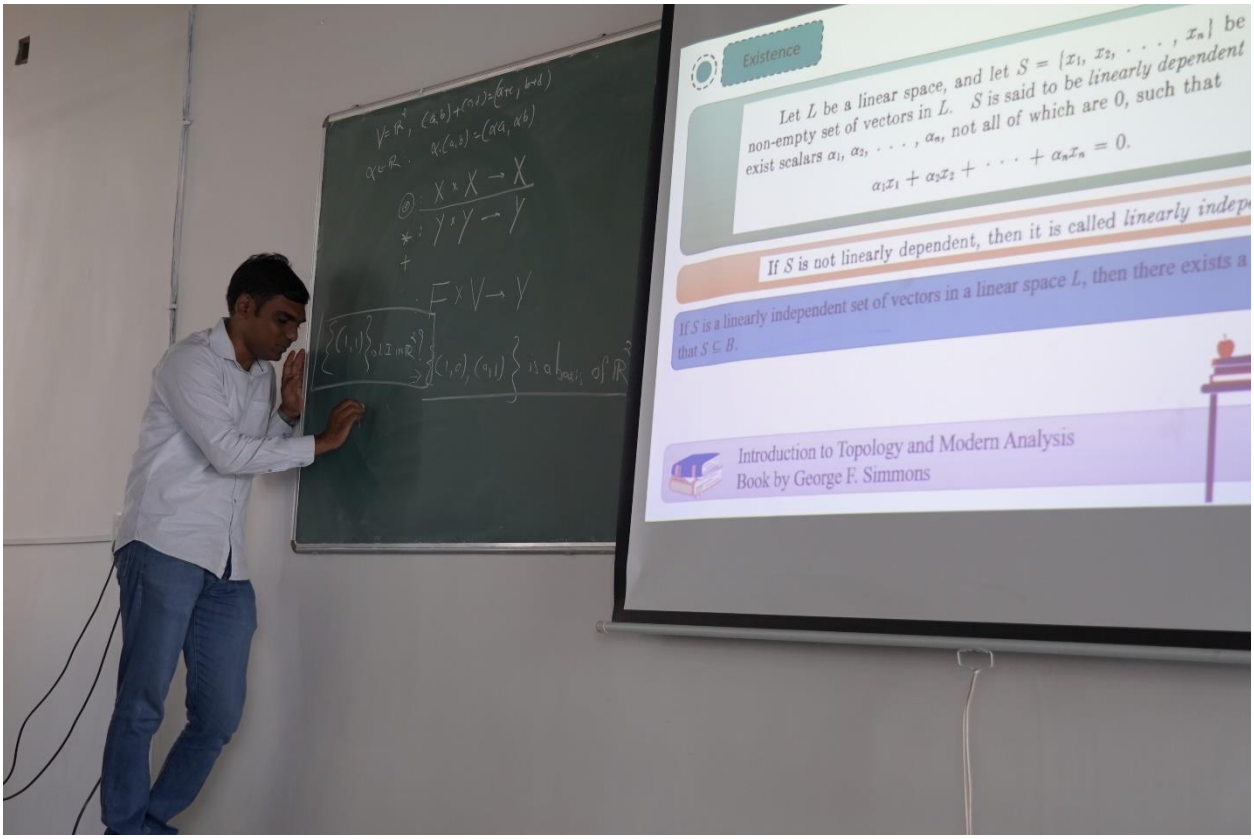
Department of Mathematics, Jeel Goswami College of Science & Research, Faculty of Science, Monark University organized a Seminar on Existence of Basis and its Applications (SEBA-2024) on 23rd April, 2024 (Tuesday). Venue of this event was: S. Ramanujan Hall, Second Floor, Omkar Bhavan, Monark University. The Seminar was aimed to provide insights into Deepening Understanding, Application Insights, Problem-Solving Skills, Research Inspiration and Professional Development. The seminar commenced at 10:30 A.M. onwards and spanned throughout the day. Dr. Savan Patel, Assistant Professor of Mathematics at Department of Mathematics at St. Xavier's College, delivered an expert talk, providing valuable insights in line with the theme of the event. The seminar was designed to be interactive, engaging students and faculty members alike in discussions and Problem-Solving sessions. A total of 25 students registered and actively participated in the seminar, demonstrating significant interest and engagement in the subject matter. Faculty members also actively contributed to the event, enriching the learning experience for all attendees.

The seminar covered the following topics:

1. Understanding Mathematics
2. Exploration of Axioms
3. Study of Linear Spaces
4. Analysis of Basis
5. Examination of Existence
6. Practical Applications
7. Future Prospects

Some Memories of the Event: (photographs)




Existence
Let L be a linear space, and let $S = \{x_1, x_2, \ldots, x_n\}$ be
non-empty set of vectors in L. S is said to be linearly dependent
exist scalars $\alpha_1, \alpha_2, \ldots, \alpha_n$, not all of which are 0, such that
$\alpha_1 x_1 + \alpha_2 x_2 + \cdots + \alpha_n x_n = 0.$
If S is not linearly dependent, then it is called linearly indep
If S is a linearly independent set of vectors in a linear space L, then there exists a
that $S \subseteq B$.
Introduction to Topology and Modern Analysis
Book by George F. Simmons