<u>Program Report</u> One Day Seminar on National Mathematics Day

A One Day Seminar on National Mathematics Day, organized by the Department of Mathematics and Computing at Dr BR Ambedkar National Institute of Technology Jalandhar, was held successfully on February 9, 2024. The seminar aimed to celebrate the contributions of mathematicians and highlight the significance of mathematics in various fields.



The event featured three distinguished speakers who delivered insightful talks on diverse topics.

Prof. JK Verma, a renowned mathematician from IIT Bombay, delivered an enlightening talk on the topic "Solving Polynomial Equations Using Eigenvalues." He elucidated the application of eigenvalues in solving polynomial equations of various degrees, demonstrating how eigenvalue techniques can provide elegant solutions to complex mathematical problems. Prof. Verma's talk sparked engaging discussions among the audience, prompting insightful questions and reflections on the practical implications of eigenvalue methods in mathematical analysis and problem-solving.



Prof. Thamban Nair, a distinguished faculty member (retired) from IIT Madras, delivered an insightful presentation on "Singular Value Decomposition." He discussed the fundamental concepts and properties of singular value decomposition (SVD) and its applications across diverse fields, including data analysis, signal processing, and image compression. Prof. Nair elucidated the mathematical principles underlying SVD and showcased practical examples to illustrate its utility in solving real-world problems. His talk provided valuable insights into the theoretical foundations and practical implications of SVD, enriching the audience's understanding of this important mathematical technique



Prof. Jagdish Chand Bansal, South Asian University Delhi, delivered a captivating presentation on "Mathematical Traditions in India." He delved into the rich heritage and contributions of ancient Indian mathematicians, tracing the development of mathematical concepts and techniques from Vedic times to the modern era. Prof. Bansal highlighted notable achievements in Indian mathematics, such as the invention of zero, the development of algebra and trigonometry, and the pioneering work in calculus. His talk shed light on the profound influence of Indian mathematical traditions on global mathematics and underscored the importance of preserving and promoting this cultural legacy for future generations.

Following the keynote talks, a panel discussion was held to delve deeper into the themes addressed by the speakers and to engage the audience in interactive dialogue. The panellists included the keynote speakers as well as faculty members of NITJ. Topics of discussion included the role of mathematics in addressing contemporary challenges, the future directions of mathematical research, and opportunities for interdisciplinary collaboration. The panel discussion provided a platform for exchanging ideas, sharing insights, and fostering collaboration among participants from diverse academic backgrounds.



The seminar attracted a total of approximately 100 participants, including faculty members, research scholars, and students from Dr BR Ambedkar NIT Jalandhar. The venue of the event was Conference Hall Ground Floor IT Park.

Overall, the One Day Seminar on National Mathematics Day served as a platform for knowledge dissemination, academic exchange, and professional networking, reaffirming the importance of mathematics education and research in advancing science, technology, and innovation.

The organizing committee extends its heartfelt gratitude to all the speakers, panelists, participants, sponsors, and volunteers who contributed to the success of the seminar. Special thanks to the administration of Dr BR Ambedkar NIT Jalandhar for their support and cooperation in organizing the event. We sincerely acknowledge the support of National Board of Higher Mathematics for extending financial support to conduct this program.