#### K.T.S.P. MANDAL'S

## HUTUTMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR TAL-KHED, DIST-PUNE 410 505

### **DEPARTMENT OF MATHEMATICS AND STATISTICS**

#### BRIEF REPORT OF GUEST LECTURE

Sr. No.	Particulars	Details
1	Date	14/10/2023
2	Name of the event	Guest Lecture
3	Duration of the programme	1 Day
4	Venue	Hutatma Rajguru Mahavidyalaya, Rajgurunagar
5	Name of coordinator	Prof. R. M. Wayal
6	Number of Participants	20
7	Activity belongs to which criteria	Criteria II
8	Curricular/Co- Curricular/Extra-Curricular	Co-Curricular

Department of Mathematics and Statistics organized a guest lecture of Prof. S. N. Karle, Siddhant Engineering College, Sudumbare, on the applications of mathematics in engineering for F.Y.B.Sc. and S.Y.B.Sc. students on October 14, 2023. The lecture aimed to bridge the gap between theoretical mathematics and its practical implications in the field of engineering. The lecture commenced with an overview of fundamental mathematical concepts commonly employed in engineering disciplines, including calculus, linear algebra, differential equations, and probability theory.

Prof. S. N. Karle elaborated on how calculus is used to analyze rates of change, optimization problems, and the modeling of dynamic systems. Examples from mechanical engineering, such as motion analysis and stress calculations, were discussed to illustrate these concepts. The application of linear algebra in solving systems of equations, matrix transformations, and eigenvalue analysis was explored. The importance of linear algebra in computer graphics, signal processing, and structural analysis was highlighted. He explained the significance of differential equations in modeling dynamic systems, such as electrical circuits, mechanical vibrations, and fluid dynamics. Real-world examples were provided to demonstrate how differential equations are formulated and solved in engineering problems.

Lecture concluded with an overview of probability theory and statistical methods used in engineering applications, including reliability analysis, quality control, and risk assessment. Prof. Karle emphasized the role of probability distributions, hypothesis testing, and regression analysis in making informed engineering decisions. Following the lecture, an interactive session was conducted where students had the opportunity to ask questions and engage in discussions with Prof. Karle. Several queries were raised regarding specific engineering applications of mathematical concepts, and Dr. [Name] provided insightful explanations to address them.

The guest lecture on the applications of mathematics in engineering proved to be highly informative and enriching for the students of F.Y.B.Sc and S.Y.B.Sc in the Department of Mathematics and Statistics. The practical insights shared by Dr. [Name] helped students better appreciate the relevance of mathematical principles in solving real-world engineering problems. Overall, the lecture served as a valuable platform for students to enhance their understanding of the symbiotic relationship between mathematics and engineering, fostering a deeper appreciation for the interdisciplinary nature of these fields.







# K.T.S.P. Mandal's Hutatma Rajguru Mahavidyalaya Rajgurunagar Department of Mathematics and Statistics Guest Lecture Date-14/10/2023

Sr. No.	Name	Class	Sign
1	Bhambure Rasika Rajendra	F.Y. Bsc	@Bhambux
2	Sable Valshnavi Sunil	F. Y. B.SC	due.
3	Pawar Somiksha Prakash	F.Y. BSC	Samiksha
4	Darawade Apurva Ganesh	F. Y. Bac	Agranade
5	sakshi shantaram Hale.	F. Y. BSC	SaHN
6	Payal lahu kale	F.Y. BSC	Fale.
7	Shreya queuder kantikar	f.Y.RSC	Kartikat
8	Sharvari Shantaram khese	F.Y.BSC	Sixhese
9	Gauravi Goraksh Ghevade		-
10.	Pranav Bhaurao Mutkule	F.Y.BSC	Pritto.
11-	Daundkar Dnyanoshwari Sanjay	5.4. B. Sc	- hyprocest
10	Mohan Asmita Sandip	54. B-SC.	(2) mhay
13	Sen Vishakha Raikumay	34 B8C	(Vsen
14	Grangawane Isha Santosh	SYBSC	Egyowone.
15.	Shinde Jayshree Manohar	S. Y. BSC	Jaysher
16	Shaith Sonam Intigay	5.4.B.s	
17	salate Rutinja shaguan	-11-	present
18	tale unushali sipak	-1+-	present
19	Pable Roshan Anil		present
20	Waghole Dryancoh s.		Presen
Harris !			

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S. R. Thorat

HEAD,
DEPARTMENT OF STATISTICS
H B MAHAVIDYALAYA -RAJGURUNAGAR

R. M. Wayal Head

Department of Mathematics Hutatma Rajguru Mahavidyalaya,Rajgurunagar Dr. Shirish S. Pingale
Principal

Hutatma Rajguru Mahavidyalaya Rajgurunagar, Tal. Khed, Dist. Pune.