



**Bhavan's Vivekananda College of Science, Humanities & Commerce,
Sainikpuri, Secunderabad – 500094,
Autonomous College, Affiliated to O.U.
Reaccredited with 'A' Grade by 'NAAC'**

Activities 2024 - 2025

Department of Mathematics and Statistics

1. Artificial Intelligence – How to Be a Player Not a Victim

Date: 13 June 2024

On June 13, Mr. Amar Vajjhala and Dr. Saptarshi Das delivered an engaging and insightful guest lecture titled "*Artificial Intelligence – How to Be a Player Not a Victim.*" Organized by the **Department of Mathematics and Statistics** of Bhavan's Vivekananda College of Science, Humanities, and Commerce, the session highlighted the growing importance of AI literacy across all professional domains and emphasized the need for individuals from diverse career backgrounds to actively engage with emerging technologies. The event, skillfully compered by Ms. B. Poojashree, was attended by 200 students and concluded with a dynamic Q&A session that encouraged thoughtful discussion and active participation.



2. Statistics Word building

Date: 29-June-2024

Time: 02:15pm to 02:45pm

Venue: Room No.71, Seminar Hall, Bio Chemistry Block

Coordinator: Dr. G.S Mini, Head of Department of Mathematics and Statistics
Dr.P. Rajini, Asst.Professor, Department of Mathematics and Statistics
Dr. N. Chandan Babu, Asst.Professor, Department of Mathematics and Statistics

Number of student's Participated: 48 (Female:36, Male:12)

The Department of Mathematics and Statistics conducted a WORD BUILDING competition on the occasion of National Statistics Day 2024.

The event had about 30 participants divided into teams of 2 members each. Participants were given a puzzle and had 30 minutes to solve it. Everyone demonstrated excellent talent and excitement.

The winners were awarded certificates by the guest, Dr. Pavan Kumar Damaraju, at the end of the program.



3. Guest Lecture on “Applications of Statistics in Real time”

Date: 29-June-2024

Time: 2.45pm to 4.30pm

The Department of Mathematics and Statistics have organized a guest lecture on the occasion of National Statistics Day 2024 with the speaker Dr Pavan Kumar Damaraju.

The lecture was all about “APPLICATIONS OF STATISTICS IN REAL LIFE” where the speaker gave daily life examples of statistical usage. He also emphasized on learning the concept than memorizing the formulae. He gave the students valuable Insights about statistics and its presence since our birth.



4. Workshop on "Prototype/Process Design and Development"

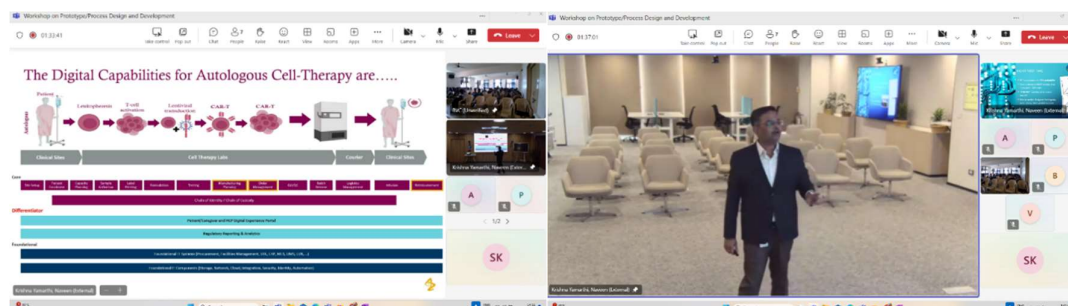
Date: 22nd August 2024

Mode: Online, Room 71, Seminar Hall, Bio-Chemistry Block

Speaker: Mr. Naveen Krishna Yamarthi, Executive Director - OPSIT, AstraZeneca

Participants: 78 students, 2 faculty members (Boys: 42, Girls: 36)

Bhavan's Institution Innovation Cell, in collaboration with the Department of Mathematics & Statistics and the Department of Physics & Electronics, organized a workshop to enhance students' knowledge on prototype design and development. The session, led by Mr. Naveen Krishna Yamarthi, covered the stages of prototype development, overcoming challenges, and strategic planning. Mr. Yamarthi shared insights from his work on digital technology for treating leukemia. The workshop was highly interactive, with participants engaging in discussions about prototype development and marketing strategies, leaving them with a deeper understanding of the process.



5. Special Lecture Series: "Indian Knowledge System"

Date: 13th to 14th September 2024

The Special Lecture Series on the Indian Knowledge System, organized by the Department of Mathematics and Statistics, aimed to introduce B.Sc (HDS) I Year students to ancient Indian mathematics. Delivered by Mrs. Nagasri Saradamba, the sessions explored the contributions of Indian scholars like Bhaskara II, focusing on mathematical texts like *Lilavati* and the concept of arithmetic progression. The lectures fostered a deeper appreciation for India's mathematical heritage while bridging ancient and modern techniques. Students actively engaged in the sessions, gaining valuable insights into both historical and contemporary problem-solving approaches. The event successfully enhanced their understanding of mathematics and inspired further exploration of the Indian Knowledge System.



6. Guest Lecture on "Exploring Careers in Statistics Opportunities & Pathways"

Date: 12-Dec-2024

Time 2.30pm to 4.30pm

Venue: Room No.71, Seminar Hall, Bio-Chemistry Block

Place: Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri.

The Department of Mathematics and Statistics at Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri, organized a guest lecture with Mrs. K. Parimala Diana Sudhir as resource person on

"Exploring Careers in Statistics – Opportunities & Pathways," providing valuable insights into career options and skills in the field. The event, coordinated by Dr. V. Selva Kumar and Dr. P. Rajini, inspired students to explore diverse careers in statistics.



7. Skill Enhancement Program in Linear Algebra Using MATLAB

Date: 18th December 2024

Organized by: Department of Mathematics and Statistics

The Department of Mathematics and Statistics successfully conducted an online skill enhancement program titled "**Skill Enhancement in Linear Algebra Using MATLAB**" on 18th December 2024 for the final year students of B.Sc. The resource person was **Dr. P. Aparna**, Associate Professor, VNRVJIET (Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering and Technology).

The session aimed at introducing MATLAB and improve participants understanding of linear algebra concepts and their practical applications using MATLAB. Dr. Aparna covered key topics such as matrix operations, eigenvalues, eigenvectors, and solving systems of linear equations, illustrating their implementation in MATLAB.





8. Lecture Series on Indian Knowledge Systems

Date: December 23-24, 2024

Organized by: Department of Mathematics and Statistics

Resource Person: Prof. K. Satyanarayana (Retd.), Former Professor, Osmania University

Topics Covered:

- Ancient Mathematicians
- Contributions of Indians to the development of Zero and decimal numbers
- Arithmetic progression
- Works of Bhaskara I & II
- Indian contributions to Mathematics and Ancient Indian Mathematics

The students were thrilled to learn about the contributions of Indian mathematicians, including Ramanujan, and the development of mathematics in ancient India.



9. Workshop on Deep Learning and NLP

Date: 28th December 2024

Place: Bhavan's Vivekananda College of Science, Humanities, and Commerce, Sainikpuri.

Report: The Workshop covered key concepts in Machine Learning and Deep Learning, with hands-on tasks led by Mr. V. Bhaskara Hanuma. Sessions focused on Forward and Backward Propagation, Artificial Neural Networks, and PyTorch, followed by an introduction to Convolutional Neural Networks. The day concluded with a Q&A session and a closing address by B. Poojashree.



10. A talk on "Mathematics in Economics"

A talk on "Mathematics in Economics" was organized by the Department of Mathematics and Statistics on February 3, 2025, in Room No. 71, Biochemistry Block. The event, attended by 96 students (40 girls and 56 boys), featured Mr. Datla Sashank, an alumnus of Bhavan's (2019-2022 MSCs Batch) and MA in Economics from Osmania University. He emphasized the importance of mathematical concepts, such as calculus, linear algebra, and probability, in economic theories and decision-making. The session inspired students to explore interdisciplinary approaches, combining mathematics with economics for further research and study.





11. Value Added Course on “Operation Research”

Date: 10-Dec-2024 to 08-Feb-2025

Place: Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri.

The 30-hour Value Added Course on Operations Research provided students with hands-on experience using specialized software, enhancing their problem-solving skills in optimization and decision-making. Through practical sessions and real-world case studies, students gained valuable insights into key OR techniques, significantly improving their ability to analyze and solve complex problems.



12. Exploring Emerging Technologies and Statistical Innovations: A Showcase by the Department of Mathematics and Statistics

Date: 28th February 2025

Event: Project Presentation in Statistics

Venue: Mathematics and Statistics Lab (Room. No. 26)

Organized by: Dept. of Mathematics and Statistics

No. of Girls: 23

No. of Boys: 24

Total: 47

No. of Teams: 15

The Department of Mathematics and Statistics organized two key events to showcase the students' research and analysis. The first was a PowerPoint presentation on “Mathematics in Emerging Technologies: AI, Blockchain, and Cyber Security,” where students presented different aspects of mathematics applied to these technologies. Dr. S. Ramana, Assistant Professor and Controller of Examinations, judged the event, and Team-6 won the first prize, while Team-5 secured second place. The second event, the Project Presentation in Statistics, saw B.Sc. teams presenting research on statistical topics like data analysis, machine learning, and deep learning. The event provided a platform for students to demonstrate their statistical expertise, with active participation from various classes. Both events emphasized practical applications and innovations in their respective fields.



