



ST. ANN'S COLLEGE FOR WOMEN



(Autonomous) Affiliated to Osmania University
Accredited 'A' Grade by NAAC (4rd Cycle), College with Potential for Excellence by UGC.
Mehdipatnam, Hyderabad - 500028.

DEPARTMENT OF MATHEMATICS

Report 2023–2024

The Department of Mathematics had a remarkable and productive academic year 2023–2024, marked by significant research achievements, faculty contributions, student successes, and outreach initiatives. The department consistently worked towards academic excellence, research development, and holistic growth of students, while also contributing to the larger academic and social community.

1. Research and Academic Achievements

Research remained a cornerstone of departmental activities during the year. The department secured **two funded research projects**, reflecting the commitment to innovation and scholarly contribution. One project was approved by **NCERT** on the theme “*Promoting a Culture of Risk-Taking in Mathematics Classrooms: Significance of Creating a Safe Learning Environment.*” This project, sanctioned with a budget of ₹4,98,750 for a duration of 24 months, aims to enhance pedagogical practices in mathematics. Additionally, **St. Ann’s College** sanctioned an **ARP-funded project** worth ₹1,00,000 under the guidance of **Dr. Santoshi Misra**, further strengthening research pursuits.



Faculty members published extensively, contributing **three papers in Scopus Indexed journals** and **two papers in SCI/Scopus-listed journals**. These publications reflect the high-quality academic engagement of the department. Alongside publications, faculty also contributed to the global academic community as **peer reviewers for Springer journals, including OPSEARCH**, ensuring the dissemination of quality research.

An important individual achievement was the successful completion of the **Ph.D. viva-voce examination by Dr. Santoshi Misra**, marking a milestone in her academic journey. In addition, she earned an **Elite + Silver Medal** in the NPTEL Online Certification Course on *Applied Optimization for Wireless, Machine Learning, and Big Data*, demonstrating her expertise in contemporary interdisciplinary applications of mathematics.

2. Faculty Contributions as Resource Persons

The department's faculty actively contributed as **resource persons** at national and international platforms.

- **Dr. Santoshi Misra** delivered an **invited talk** at the *International Experts Summit on Condensed Matter Physics and Materials (IESCMP 2023)* held in Dubai from October 12–14, 2023.



- She was also a **virtual speaker** at the *2nd International Conference on Catalysis and Chemical Engineering*, Paris, on November 9–10, 2023.
- Faculty members also conducted sessions closer to home, including lectures on **Laplace Transforms** and interactive guest lectures at events such as *Math Fiesta* and at **St. Francis College**.



- **Mrs. Saba Firdous** served as a guest speaker at **Bhavan's Vivekananda College** on December 18, 2023, and was invited as a **judge** for the *E-Poster Competition on Applications of Mathematics in Medical Science*.



These contributions highlight the department's growing visibility and impact in both international and national academic forums.

3. Staff Achievements

Dr. Santoshi Misra

NCERT has approved the research project titled **“Promoting a Culture of Risk Taking in Mathematics Classrooms: Significance of Creating a Safe Learning Environment”** with the amount sanctioned Rs. 4,98,750 for a period of 24 months. St. Ann's College has approved funded ARP with an amount of Rs. 1, 00,000.



The faculty of the department achieved notable academic milestones during the year. **Mrs. Bala Sowjanya** successfully cleared the **TS-SET in Education (2023)**, adding to the academic credentials of the department. Such achievements underscore the commitment of faculty towards professional and academic growth.



4. Events Organized

The Department of Mathematics organized several academic events to enhance the learning experience of students and to expose them to advanced topics:

- A guest lecture on “Stereographic Projection” was delivered by **Prof. Hari Singh Naik** from Osmania University on 20th August 2023.



- On 16th December 2023, **Prof. K. Srinivasa Rao** from Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram, delivered a lecture on “**MATLAB and its Applications.**”



- The department also conducted **national-level hands-on training workshops**, enabling students to gain practical exposure.



In addition to these formal lectures, the department actively engaged students through **Math Club activities** such as *Math Anthakshari* and *Puzzle of the Week*. These initiatives encouraged critical thinking, teamwork, and a spirit of curiosity among students.



5. Publications and Newsletter

A significant accomplishment for the year was the **release of the departmental newsletter “Math Monolith”** on 16th December 2023. The release was graced by **Dr. Sr. Vijaya Rani** and **Prof. K. Srinivasa Rao**, and the newsletter served as a platform to showcase student creativity, faculty achievements, and departmental activities.



6. Extension and Outreach Activities

The Department actively contributed to extension services and outreach programs. As part of the **PAWMENCAP initiative**, the department organized a **book sale**, raising funds and awareness for social causes. Additionally, the department extended academic support and services to **St. Ann's High School, Vijayanagar Colony**, thereby strengthening school–college collaborations.



7. Student Achievements

The students of the department excelled in various intercollegiate competitions and activities:

- Students participated in “**Ank Ganith – Math Fest**” conducted by St. Francis College for Women on 22nd January 2024.
- **S. Pavani** (B.Sc MSCs, III Year) secured recognition in the *Tambola Game*.



- **Nikitha** (B.Sc MPCs, II Year) won **first prize** in the *Memory Game*.



- Final-year students **Monika and Himika** presented on *Entrepreneurship in the Field of Mathematics* during the **IIC Orientation Program**, showcasing innovative thinking and entrepreneurial spirit.



Such achievements reflect the holistic development of students, going beyond classroom learning.

8. Exhibitions and Fests

The department proudly organized a **Math Expo**, which provided a platform for students to present models, projects, and innovative mathematical applications. This event not only showcased the creativity of students but also helped them apply theoretical knowledge to practical demonstrations, making learning an interactive experience.

