

ST.FRANCIS COLLEGE FOR WOMEN - HYDERABAD

ACADEMIC YEAR 2025-26

Annual Report

NAME OF THE DEPARTMENT: Mathematics

1. WORKSHOPS CONDUCTED

- The one day Hands-on training workshop “Computational Thinking with Mathematica” was conducted on January 30, 2026 by the Department of Mathematics. It was attended by 50 BSc Physical Sciences final year students .
- The one day Hands-on training workshop “Exploring Mathematics with Python” was conducted on February 2,2026 by the Department of Mathematics. It was attended by 50,BSc II H students .
- The one day Hands-on training workshop “Applications of Differential Equations using Matlab” was conducted on February 5,2026 by the Department of Mathematics. It was attended by 50 , BSc first year physical science students.
- The one day Hands-on training workshop “Applications of ODE using Octave Software” was conducted on February 6,2026 by the Department of Mathematics. It was attended by 100 ,BSc II B and II D students .
- The one day Inter College Hands-on Training on “Mathcad Software”was conducted on March 13,2026 by the Department of Mathematics. It was attended by 6 students and 7 staff members.

2. SEMINARS/CONFERENCE CONDUCTED: NIL

3. WORKSHOP / SEMINAR ATTENDED (By the Faculty)

- Dr.Rekha R Jaichandar attended the workshop “NAAC Reforms and the Role of Faculty” conducted on April 24,2025, organised by the IQAC in association with IAE,St. Francis College for Women,Begumpet.
- Dr.Y.Suryavardhani attended the workshop “NAAC Reforms and the Role of Faculty” conducted on April 24,2025 ,organised by the IQAC in association with IAE, St. Francis College for Women,Begumpet.

- Dr.K.Ramanjana attended the workshop “NAAC Reforms and the Role of Faculty” conducted on April 24,2025 ,organised by the IQAC in association with IAE,St. Francis College for Women,Begumpet.
- Dr.B.Lavanya attended the workshop “NAAC Reforms and the Role of Faculty” conducted on April 24,2025 ,organised by the IQAC in association with IAE,St. Francis College for Women,Begumpet.
- Dr.Sister Mary Jacintha attended the workshop “NAAC Reforms and the Role of Faculty” conducted on April 24,2025 ,organised by the IQAC in association with IAE,St. Francis College for Women,Begumpet.
- Dr.K.Ramanjana attended the conference “National Conference On Data Predictive Analytics And Numerical Simulations” conducted from April 23rd to 25th, 2025 ,organised by Indian Institute of Technology , Dhanbad.
- Dr.Y.Suryavardhani attended the workshop “International Conference on applied Mathematics and Computing 2025” conducted on May 17th to 19 th ,2025 ,organised by the School of Advanced Sciences,VIT-AP University in collaboration with Andhra Pradesh and Telangana Society for Mathematical Sciences at VIT University,Amaravati.
- Dr.K.Lavanya attended the workshop “International Conference on applied Mathematics and Computing 2025” conducted on May 17th to 19 th ,2025 ,organised by the School of Advanced Sciences,VIT-AP University in collaboration with Andhra Pradesh and Telangana Society for Mathematical Sciences at VIT University,Amaravati.
- Dr.Y.Suryavardhani attended the workshop “Vedic Mathematics : Unlocking the power of Ancient Indian Maths” conducted on May 29,2025 ,organised by Central University of Kashmir, Tulmulla Ganderbal.
- Dr.Sister Mary Jacintha attended the workshop “ Rooted and relevant :Religious life in the age of Artificial Intelligence” conducted on September 22nd to 26 th,2025, organised by the National CRI (Women’s Section).
- Dr.Y. Suryavardhani attended the Two Day National workshop “Scilab software” conducted on December 22 to 23 ,2025 ,organised by RBVRR College,Narayanguda.
- Dr.K. Lavanya attended the Two Day National workshop “Scilab software” conducted on December 22 to 23, 2025 , organised by RBVRR College, Narayanguda.

- Dr.B.Lavanya attended the Two Day National workshop “Scilab software” conducted on December 22 to 23 ,2025 ,organised by RBVRR College,Narayanguda.
- Dr.Sister Mary Jacintha attended a one day faculty workshop “Best Practices to Activate to U.S - India Academic Partnership ,conducted on January 16,2026 organised by the American Corner,St. Francis College for Women, Begumpet.
- Dr.Rekha R Jaichandar attended the workshop Hands on Training on "Mathcad Software” conducted on March 13, 2026, organised by the St. Francis College for Women,Begumpet.
- Dr.Y.Suryavardhani attended the workshop Hands on Training on “Mathcad Software”, conducted on March 13, 2026, organised by the St. Francis College for Women,Begumpet.
- Dr.K.Ramanjana attended the workshop Hands on Training on “Mathcad Software” conducted on March 13 ,2026 ,organised by the St. Francis College for Women,Begumpet.
- Dr.K.Lavanya attended the workshop Hands on Training on “Mathcad Software” conducted on March 13, 2026, organised by the St. Francis College for Women, Begumpet.
- Dr.B.Lavanya attended the workshop Hands on Training on “Mathcad Software” conducted on March 13, 2026, organised by the St. Francis College for Women, Begumpet.
- Dr.Sister Mary Jacintha attended the workshop Hands on Training on “Mathcad Software” conducted on March 13, 2026, organised by the St. Francis College for Women, Begumpet.

4. PAPERS PRESENTED , PUBLISHED / BOOK /CHAPTERS PUBLISHED BY FACULTY MEMBERS

PAPERS PRESENTED

- Ms. K. Ramanjana presented a paper in the conference “National Conference On Data Predictive Analytics And Numerical Simulations” conducted from April 23 rd to 25 th ,2025, organised by Indian Institute of Technology, Dhanbad.

- Dr. Rekha R J presented a paper in the conference “Solving two-stage Quadratic Interval valued problems via Optimality and Relaxations” conducted from 3rd July to 5th July, 2025, organised by Indian Institute of Technology, Dhanbad.

PAPERS PUBLISHED

- Baradi, L., Srinivas, G., & Babu, B. S. (2025, November). CuO-Water nano fluid flow, heat and mass transfer in a triangular channel of semi-circular groove. In *AIP Conference Proceedings* (Vol. 3361, No. 1, p. 020004). AIP Publishing LLC.
- Kummari, K., Jaichander, R. R., Treanță, S., & Pirje, C. F. (2025). Robust parametric ER-Karush–Kuhn–Tucker optimality criteria for fractional interval-valued optimization problems: K. Kummari et al. *Rendiconti del Circolo Matematico di Palermo Series 2*, 74(4), 121.
- Kummari, K., Jaichander, R. R., & Ahmad, I. (2026). Schaible and Bector type robust ER-duality for robust fractional interval-valued optimization problems. *Journal of Computational and Applied Mathematics*, 117508.
- Ahmad, I., Kummari, K., & Jaichander, R. (2026). Mangasarian-Type Higher-Order Duality in Multi-Objective Programming with Complementarity Constraints. *European Journal of Pure and Applied Mathematics*, 19(1), 6313-6313.

5. GUEST LECTURES ORGANISED

- A guest lecture titled “Recent Trends in AI/ML Applications in Scientific Computing” was organized by the Department of Mathematics facilitated by a resource person. Prof.P.Srinivasa Rao,Department of Mathematics,IIT (ISM) Dhanbad on June 23,2025 for the students of BSc -final year physical sciences.
- A guest lecture titled “Wellbeing Among The Younger Generation & A Positive Outlook Towards Life” was organized by the Department of Mathematics in collaboration with the Department of Library facilitated by a resource person Ms. Walter ,Founder of Joy Studio ,Yoga Trainer on August 11,2025 for the students of BSc -first year physical sciences.
- A guest lecture titled “Career Guidance” was organized by the Department of Mathematics facilitated by a resource person. Mr.Faizul Hassan, Senior Manager @IDP India on February 4,2026 for the students of BSc -final year B and D sections.

- A guest lecture titled “Unlocking Complexity: How Linear Algebra Drives Complexity” was organized by the Department of Mathematics facilitated by a resource person Dr. J. Vijayasekhar, Department of Mathematics, School of Science, GITAM, Hyderabad on February 5, 2026 for the students of BSc -final year D section.

6. INDUSTRY -ACADEMIA CONNECT INITIATIVES-NIL

7. FACULTY ACHIEVEMENTS (PhD., Research Grants ,Minor/Major research ,Awards....)

- Ms..K.Ramanjana was awarded a PhD from the University of GITAM on June 2, 2025 Hyderabad. The topic of the work is “Magnetic Field Effects On Casson Fluid Flows Through Porous Medium Over Stretching Surfaces” and it was recognized as a significant contribution to the field.
- Ms.B.Lavanya was awarded PhD from the University of Bharatiya Engineering Science and Technology Innovation University on September 10, 2025 Hyderabad. The topic of the work is “Finite Element Analysis Of Convective Heat And Mass Transfer Of CuO water Nanofluid Through Channels With Groove” and it was recognized as a significant contribution to the field.
- Dr.K.Lavanya was invited as a resource person for the topic “Applications of Differential Equations” on November 4, 2025, AV College, Narayanguda. BSc first year students were the participants.
- Dr. Rekha R. Jaichander has received the grant for a minor Research Project on the topic “Study on Solution Methods of Nonsmooth Robust Optimization Problems”, funded by St. Francis College for Women, Begumpet, Hyderabad- ongoing process.

8. STUDENT ACHIEVEMENTS (WINNER DETAILS)

- Ms Sadia Gulzar of BSc II B (MPC) had participated in Pi Approximation-Shape and Slay competition and was awarded first prize in the competition organised by the Department of Mathematics.
- Ms Bharathi of BSc III B (MPCs) had participated in Pi Approximation-Shape and Slay competition and was awarded the consolation prize in the competition organised by the Department of Mathematics.
- Ms Ch.Joshitha of BSc I B (MPCs) had participated in Pi Approximation-Murder Mystery competition and was awarded the first prize in the competition organised by the Department of Mathematics.

- Ms Sannitha Reddy of BSc I B (MPCs) had participated in Pi Approximation-Murder Mystery competition and was awarded the first prize in the competition organised by the Department of Mathematics.
- Ms B. Navitha of BSc I B (MPCs) had participated in Pi Approximation-Murder Mystery competition and was awarded the first prize in the competition organised by the Department of Mathematics.
- Ms P Joshnavi of BSc I B (MPCs) had participated in Pi Approximation-Murder Mystery competition and was awarded the first prize in the competition organised by the Department of Mathematics.
- Ms O. Mounika of BSc III D (MSCs) had participated in the Elocution competition and was awarded second prize in the competition organised by National Institute for Micro Small and Medium Entrepreneurship, Hyderabad.
- Srija Bhoopathi, BSc IB (MPC) Sem II had participated in E-Poster (National Education Day 2025) and was awarded the second prize in the competition organised by Osmania University on 15 th November 2025.
- Srija Bhoopathi, BSc IB (MPC) , Sem II had participated in GLEE Science models and was awarded the second prize in the competition organised by Spectrum club on 20th November 2025.
- S.S Lisha, BSc IB (MPC) , Sem II had participated in GLEE Science models and was awarded the second prize in the competition organised by Spectrum club on 20th November 2025.
- Cheela satvika , BSc IB (MPC) , Sem II had participated in GLEE Science models and was awarded the second prize in the competition organised by Spectrum club on 20th November 2025.
- Hasini Gandhi, BSc IB (MPC) , Sem II had participated in GLEE Science models and was awarded the second prize in the competition organised by Spectrum club on 20th November 2025.
- Vasudharini, BSc IB (MPC) , Sem II had participated in GLEE Science models and was awarded the second prize in the competition organised by Spectrum club on 20th November 2025.

- K.Akshaya,BSc IB (MPC) , Sem II had participated in GLEE Science models and was awarded the second prize in the competition organised by Spectrum club on 20th November 2025.
- Srija Bhoopathi,BSc IB (MPC) , Sem II had participated in Poster Making (National Mathematics Day 2025) and was awarded the first prize in the competition organised by St Ann's College,Mehdipatnam on 17 th December 2025.
- Srija Bhoopathi,BSc IB (MPC) , Sem II had participated in Online Collage making competition and was awarded Consolation prize organised by Women's Cell,St Francis College For Women on 13th March 2026.

8. SOCIAL OUTREACH INITIATIVES

- 38 students from BSc IB , MPC & MPCs combination ,were accompanied by the faculty Member Dr.K.Ramanjana and Dr.K.Lavanya visited Sannihita Centre, Lalaguda, Secunderabad an orphanage on December 9,2025.
- 10 students from BSc III E, MECs combination ,were accompanied by the faculty Member Dr.B.Lavanya visited Sannihita Centre, Parklane, Secunderabad an orphanage on December 9,2025.
- 40 students from BSc III B , MPC & MPCs combination ,were accompanied by the faculty Member Dr.Sister Mary Jacintha visited Sri Vidhya Centre for the Special Children on December 8,2025.
- 30 students from BSc II B , MPC combination ,were accompanied by the faculty Member Dr.Y.Suryavardhani visited Helen Keller College for Disabled (Deaf) children, Secunderabad on December 8,2025.

9. FIELD VISITS ORGANISED

- A group of 28 students from [B.Sc](#) ,III Yr Physical Sciences, visited University of Hyderabad for a field visit on 8th September,2025.
- A group of 13 students from [B.Sc](#) ,II Yr Physical Sciences, visited Warangal (Ramappa temple, Thousand Pillar Temple, and Badrakali temple) for a field visit on 13th December ,2025.

10. STUDENT CLUB ACTIVITIES HOSTED BY DEPARTMENT STUDENTS (IF RELEVANT)-NIL

11.Student Exchange programmes-NIL

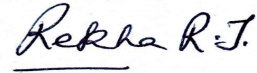
12.FDP Conducted- Date, Faculty-in charge, Resource person,Topic-NIL

13.FIP Conducted Date, Faculty-in charge, Resource person, Topic-NIL

14.Capacity building program conducted by the department Date, Faculty incharge, resource person, topic.

The Department of Mathematics conducted the capacity building programme for the non teaching staff on July 5,2025. The resource person for the same was Dr.Y.Suryavardhani and Dr.K.Ramanjana and the topic was “*Vedic Mathematics*” .

15. Any other: NIL



**Dr.Rekha R Jaichandar
(Head Of The Department)**