

ST. FRANCIS COLLEGE FOR WOMEN - HYDERABAD

ACADEMIC YEAR 2025-26

Annual Report

NAME OF THE DEPARTMENT: Microbiology

1. WORKSHOPS CONDUCTED

- One day workshop titled Mushroom Cultivation Hands-on Experience was conducted on 11th August, 2025 by the Department of Microbiology. This was organized in association with S Mushroom Agri Tech and attended by 14, B.Sc. Microbiology final year BTMBC and BCMBC students and one faculty member, K Swathi.
- One day workshop on Microtome machine was conducted on September 17th 2025 by the Department of Microbiology. This was organized in association with Vijay Marie Hospital for students of PG II year Microbiology.
- The Three-day workshop titled Tiny Earth partner instructor training was hosted from January 6th to 8th, 2026 by the department of Microbiology in association with Tiny Earth, University of Wisconsin, USA and 6D varsity, attended by a total of 10 faculty from colleges in twin cities.
- A three day workshop on Proteomics was organized by the Department of Microbiology from January 27, 2026 to January 30, 2026, for the students of B.Sc. II C and III C, with a total of 100 participants.
- Hands-on training session on HPLC was organized by the Department of Microbiology on February 1, 2026, for the students of B.Sc. III C, with 16 participants.

2. SEMINARS/CONFERENCE CONDUCTED

The Conference titled International Conference on Novel Therapeutics to combat antimicrobial resistance: Advancing Collaboration, Innovation and sustainability 2026 (ICMIC'26) was conducted on January 9, 2026 by the department of Microbiology. This was organised in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA and was attended by a total of 140 students and 15 staff members.

3. WORKSHOP / SEMINAR ATTENDED (By the Faculty)

- Dr. Roselin organized and attended the workshop Mentoring Peer Institutions on ABC & NAD conducted on July 4th 2025 organized by IQAC, St Francis College for Women.
- Dr. Anitha Thomas attended the workshop Mentoring Peer Institutions on ABC & NAD conducted on July 4th 2025 organized by IQAC, St Francis College for Women.
- Dr. Gayatri V attended Two Day Virtual Workshop on Computational Chemistry on August 25th & 26 2025 organized by BON SECOURS COLLEGE FOR WOMEN Under DBT STAR College Scheme, Thanjavur.
- Dr.P.Roselin attended National Seminar on 'Empowering India's Research Future' conducted on July 9th & 10th 2025 organized by Research Heights in Engineering staff College.
- Dr. Roselin, Dr.Gayatri, Dr.Sunitha and Ms. Natasha attended an international conference on Emerging Microbial Technologies for One Health conducted on October 15th to 17th 2025 organized by Department of Microbiology, Osmania university.
- Dr. Roselin.P attended Three Day conference ICOC 2025 from August 6th to 8th 2025 organized by Christ Deemed to be University, Bengaluru.
- Dr. Roselin Polugari and Dr. Anitha Thomas attended Two Day Conference AIACHE South regional meet 2025 on August 29th and 30th organized by AIACHE at MCC, Tamilnadu.
- Dr.P.Roselin organised and attended Global Immersion Program at Case Western Reserve University, USA from May 6th to 16th 2025, organized by Department of Microbiology, St.Francis College for Women and Case Western Reserve University, Ohio, USA
- Dr.V.Gayatri, Dr.Arsheen, Ms. Suman attended Global Immersion Program at Case Western Reserve University, USA from May 6th to 16th 2025, organized by Department of Microbiology, St.Francis College for Women and Case Western Reserve University, Ohio, USA

- Dr.Roselin.P, Dr.Anitha Thomas,Dr.Gayatri.V,Dr.Sunita.D,Dr.Arsheen Tabassum , Ms.K.Swathi, Dr.K.Suman and Ms.Natasha Selvina attended the International Conference on Novel Therapeutics to combat antimicrobial resistance: Advancing Collaboration, Innovation and sustainability 2026 (ICMIC'26) conducted on January 9,2026 and organised by the department of Microbiology , St.Francis College for Women.
- Dr.Roselin.P and Dr.Gayatri.V attended the One-day faculty workshop titled “After the MOU: Best Practices to Activate U.S.–India Academic Partnerships” conducted on January 16, 2026, and organised by the Centre for International Studies St. Francis College for Women and American Corner Hyderabad.
- Dr Roselin, Dr Anitha Thomas, Dr Gayatri, Dr Sunitha, Dr. Arsheen Tabassum and Ms. Swathi attended the workshop titled Scientific Data analysis and material Characterisation using Origin conducted on February 17, 2026, and organised by the department of Physics, St. Francis College for Women
- Dr. Roselin P, Dr. Anitha Thomas, Dr. Gayatri.V, Dr. Sunita D, Dr. Arsheen Tabassum, Ms. K Swathi, Dr. K Suman and Ms. Natasha Selvina attended the workshop titled “Essentials of Power BI” conducted on February 12, 2026, and organised by the department of Statistics, St. Francis College For Women
- Dr. Roselin P, Dr. Anitha Thomas, Ms. Swathi and Ms. Natasha Selvina attended guest lecture on the topic “Big Bang theory - Mystery” by Dr. Emmanuel Haqq conducted on February 28, 2026, and organised by IQAC, St. Francis College for Women
- Ms. Natasha Selvina attended the International Seminar on the title “Machine learning applications in drug discovery: Predicting drug like properties and efficacy” conducted on March 4, 2026, and organised by department of Chemistry and biotechnology, Gnanamani College Of Technology.
- Ms. Natasha Selvina attended a lecture on Outcome Based Education conducted on February 20, 2026 organised by Faculty Development Cell & IQAC, St. Francis College For Women.
- Dr. Sunita. D & Dr. Arsheen Tabasum attended the National Conference on Integrating sustainable sciences with Indian knowledge system. ISSIKS - 2026, on 19th & 20th March 2026 organized by Shri Rawatpura Sarkar University, Raipu.

- Dr. Sunita. D attended the International Conference on Synergy in science - Integrating diverse disciplines for sustainable technological evolution. SIS2K26, organized by Little Flower college, Uppal, Hyderabad.
- Ms. Natasha Selvina attended a lecture on conversations on emotional well being conducted on December 17, 2025 organised by Faculty Development Cell & IQAC, St. Francis College For Women.
- Dr.Roselin.P, Dr.Anitha Thomas,Dr.Gayatri.V,Dr.Sunita.D, Dr.Arsheen Tabassum , Ms.K.Swathi, Dr.K.Suman and Ms.Natasha Selvina attended a guest lecture on Research grant management and readiness for effective fund utilisation conducted on February 24, 2026 organised by Faculty Research cell
- Dr.P.Roselin , St.Francis College for Women , has participated in the International Webinar on “Quantum Science for Sustainable tomorrow” under DBT star College (Strengthening Component)
Organised by the Department of Physics, St. Francis College for Women, Begumpet, Hyderabad in association with IAPT RC22 on December 13, 2025.
- Dr.Roselin.P, Dr.Anitha Thomas and Dr.Gayatri V attended a National Seminar on Understanding India from Its Grounded Knowledge on 29th and 30th March 2026 organized by Boi Aarot Publication, Kolkata.
- Ms. K Swathi attended and participated in the International Conference IMPNPR 2026 organised by RVBR College , Hyderabad on February 12 to 14, 2026.
- Dr. Arsheen Tabassum, Ms. Natasha Selvina attended two-Day International Conference on SCISUSTAIN 2025 Fostering Sustainable Development through Interdisciplinary Scientific Research , Organized by Faculty of Science sponsored by the CSIR, India held at Kalinga University, Naya Raipur on 17th September 2025.
- Ms. Natasha Selvina attended two day Virtual workshop on Computational Chemistry, organized by Bon Secours College For Women, Thanjavur held on August 25, 26th , 2025

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

Papers Presented

- Dr. Roselin.P presented a paper, Workplace Culture and its Impact on Motivation and Performance of Employees in Higher Educational Institutions in the International Conference on ICOC 2025 organized by Christ Deemed to be university, Bengaluru from August 6th to 8th 2025.
- Dr. Roselin Polugari and Dr. Anitha Thomas presented a paper, PBL for people, planet and process: A future ready approve to holistic education in Fostering Academic Partnership in Christian Higher Education institutions in Two Day Conference AIACHE South regional meet 2025 organized by AIACHE at MCC, Tamilnadu on August 29th and 30th 2025.
- Dr. Anitha Thomas had presented a paper titled Analysis of the Inhibitory Effects of *Camellia sinensis* on Oral Biofilm Formers in the International Conference on Sustainable Science & Technology for Tomorrow organized by SCITECH from 8th to 10th December 2025
- Dr Anitha Thomas had presented a paper titled Phytochemical, antimicrobial and effect of UV radiations on *Camelia sinensis*, *Curcuma longum* *Trigonella foenum* in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr Anitha Thomas had presented a paper titled Evaluating the efficacy and safety of red clover in preventing tooth decay in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr Anitha Thomas had presented a paper titled Biofilm mediated antibiotic resistance in bacteria isolated from dental infection in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.

- Dr Anitha Thomas had presented a paper titled Green Synthesis of metal nanoparticles using citrus peel extracts in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St.Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr. P Roselin and Dr. Gayatri presented a paper titled Green Synthesis of Nanoparticles as Supplemental Treatment Against MDR Strains in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St.Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr.Roselin.P presented a paper titled Bacterial pigment production in fruit peel media for dyeing and antimicrobial use in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr.Roselin.P presented a paper titled Evaluation of antibacterial activity of nano-formulation of antibiotics in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr.Roselin.P presented a paper titled Antimicrobial potential of orange peel and mulberry leaf extracts incorporated with nanoparticles in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.

- Dr. Gayatri presented a paper titled Exploration of Endophytic Microorganisms from Medicinal Plants and their Antimicrobial Properties in the International Conference on Innovation in medicinal plants organized by RBVRR college on 12th February 2026.
- Dr. Gayatri presented a paper titled Inhibition of Biofilm using natural Plant extracts and essential oils in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr. Gayatri presented a paper titled Pseudomonas Vs. Pseudomonas: In-Silico Analysis of Resistance Genes in Pseudomonas aeruginosa against bicyclic antimicrobial peptide of Pseudomonas in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr. Arsheen Tabassum presented a paper, Alternative strategies against clinical multi drug resistant pathogens: antibacterial role of Syzygium aromaticum in MDR Enterobacter cloacae in the International Conference on BIotrendz: Environment and sustainability in science and technology organized by NIET , Noida on September 29th to 30th 2025 .
- Dr. Arsheen Tabasum presented a paper titled “Histopathological evaluation of the wound healing potential of Syzygium cumini in diabetic Wister rats” at the National Conference on Integrating Sustainable Sciences with Indian Knowledge System (ISSIKS 2026), held on 19th and 20th March 2026, organized by Shri Rawatpura Sarkar University.
- Dr. Arsheen Tabassum presented a paper titled From Ancient Remedies to Nanotechnology: Comparing Medicinal Plants and Green-Synthesized Nanoparticles Against Multidrug-Resistant Bacteria. in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with

Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.

- Dr. Arsheen Tabassum presented a paper titled Screening of Plant extracts and Nanoparticles against Multidrug resistant pathogens for their therapeutic properties in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr. Arsheen Tabassum presented a paper titled Revealing MDR *Aerococcus viridans* in diabetic wounds and the healing potential of *Syzigium cumuni* seed extracts in the 4th Annual Conference of Microbiologists Society, India and 10th Annual International Conference of the Indian Network for Soil Contamination Research (INSCR) on "Trends in Biological Sciences 2025 [TIBS-2025]" organised at JNU, New Delhi from 8-10, December , 2025
- Dr. Arsheen Tabassum presented a paper titled Bacteriocin loaded silver Nanoparticles in Eye drop formulation in the Two-Day International Conference on SCISUSTAIN 2025 Fostering Sustainable Development through Interdisciplinary Scientific Research , Organized by Faculty of Science sponsored by the CSIR, India held at Kalinga University, Naya Raipur on 17th September 2025.
- Dr. Arsheen Tabasum presented a research paper titled "Evaluation of medicinal plant seed extracts and their green synthesized nanoparticles for development of topical therapeutics against multidrug resistant skin infections" at the National Conference on Integrating Sustainable Sciences with Indian Knowledge System (ISSIKS 2026), held on 19th and 20th March 2026, organized by Shri Rawatpura Sarkar University.
- Dr. Arsheen Tabassum presented a paper on Green silver nanoparticles as new antimicrobial strategy against Multi Drug resistant bacteria, at National Conference on Integrating sustainable sciences with indian knowledge system. ISSIKS - 2026, on 19th & 20th March 2026, organized by Shri Rawatpura Sarkar University, Raipur.
- Dr. Arsheen Tabassum presented a paper titled Silver nanoparticles as Antimicrobial agents against MultiDrug resistant bacteria, in the International Conference on Novel Therapeutics to

Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.

- Dr. Arsheen Tabassum presented poster entitled Computational Analysis of Lactate Oxidase from Multidrug resistant *Aerococcus viridans*: Insights into Drug and Phytochemicals interactions at 18th Regional Science and Engineering fair, Telangana, November 8, 2025.
- Dr. Arsheen Tabassum Presented paper on the topic Bacteriocin loaded silver Nanoparticles in Eye drop formulation at the Two-Day International Conference on SCISUSTAIN 2025 Fostering Sustainable Development through Interdisciplinary Scientific Research, organised by the Faculty of Science sponsored by the CSIR, India held at Kalinga University, Naya Raipur, on 17th September 2025.
- Dr. Arsheen Tabassum Presented a paper titled “Innovative Sustainable Therapeutics from Farm to Pharmacy: Harnessing medicinal plants for antibacterial defense against Multidrug-Resistant Bacteria in Diabetic Foot Ulcers” at an “International Conference on Allied Sciences and Novel Trends in Resilient & Precision Agriculture” on 30th May 2025.
- Dr. Arsheen Tabassum Presented a paper titled Formulation and invivo evaluation of a plant based ointment against MDR *Aerococcus viridans*” at the “ International conference on BioTrendz Environmental and Sustainability in science and Technology 29th and 30th September 2025 organized by the Department of Biotechnology, Noida Institute of Engineering and Technology (NIET).
- Dr. Arsheen Tabassum Presented a paper “Beyond the Lab: Ethical, Legal and Social Implications in Health Biotechnology”, BIO Web of Conferences 204, 01003 (IEM-HEALS), September 2025.
- Ms. K Swathi presented a paper titled Green Synthesis of silver nanoparticles from neem and Ajwain for tomato shelf life in the International Conference IMPNPR 2026 organised by RVBR College on February 12 to 14, 2026.
- Ms. K Swathi presented a paper titled Green synthesis of Silver nanoparticles using *Citrus Sinensis* peel extract and evaluation of antibacterial activity in the International Conference on Synergy in science - Integrating diverse disciplines for sustainable technological evolution

2026 organised by department of Life science, Little Flower Degree College in association with Progressive Biochar society (PBS), Hyderabad on March 25th & 26th, 2026.

- Ms Swathi, Assistant Professor presented a paper titled Preparation and Evaluation of Chitosan Silver Nano particles and Zinc Nanoparticles from Orange peel for antibacterial activity, in 2-Day International Conference on Global Sustainability through Life Sciences: Green Energy, Climate Resilience & SDG Integration (hybrid Mode), organised by St Pious X Degree & PG College for Women, Nacharam, Hyderabad in collaboration with Dallas Baptist University, Dallas, Texas, USA and Progressive Biochar Society, Hyderabad, on February 17th -18th 2026.
- Ms Hamruthavalli from PG II yr, presented a paper titled Preparation and Evaluation of Chitosan Silver Nano particles and Zinc Nanoparticles from Orange peel for antibacterial activity, in 2-Day International Conference on Global Sustainability through Life Sciences: Green Energy, Climate Resilience & SDG Integration (hybrid Mode), organised by St Pious X Degree & PG College for Women, Nacharam, Hyderabad in collaboration with Dallas Baptist University, Dallas, Texas, USA and Progressive Biochar Society, Hyderabad, on February 17th -18th 2026.
- Ms Angelina from PG II yr, presented a paper titled Preparation and Evaluation of Chitosan Silver Nano particles and Zinc Nanoparticles from Orange peel for antibacterial activity, in 2-Day International Conference on Global Sustainability through Life Sciences: Green Energy, Climate Resilience & SDG Integration (hybrid Mode), organised by St Pious X Degree & PG College for Women, Nacharam, Hyderabad in collaboration with Dallas Baptist University, Dallas, Texas, USA and Progressive Biochar Society, Hyderabad, on February 17th -18th 2026.
- Dr. Sunita. D presented a paper titled From Ancient Remedies to Nanotechnology: Comparing Medicinal Plants and Green-Synthesized Nanoparticles Against Multidrug-Resistant Bacteria. in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St.Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr. Sunita. D presented a paper titled Silver nanoparticles as Antimicrobial agents against MultiDrug resistant bacteria, in the International Conference on Novel Therapeutics to

Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St.Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.

- Dr. Sunita. D presented a paper titled Green synthesis of ZnO nanoparticles using *Catharanthus roseus* leaf extract, characterization and evaluating their antimicrobial activity against MDR Bacteria, in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St.Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Dr Sunita. D presented a paper on Green synthesis of Titanium and Iron nanoparticles using medicinal plant extracts and evaluation of their various properties, in a International conference on sustainable planet 2026: Multidisciplinary innovation for environmental resilience SPIMER 2026, on 26th & 27th February 2026, organized by School of Sciences and R & D Cell, IIMT University, Meerut, Uttar Pradesh.
- Dr Sunita. D presented a paper on Effect of Green synthesized metal oxide nanoparticles and Nanocomposites on Tomato plants affected by Bacterial speck disease,, in a International conference on sustainable planet 2026: Multidisciplinary innovation for environmental resilience SPIMER 2026, on 26th & 27th February 2026, organized by School of Sciences and R & D Cell, IIMT University, Meerut, Uttar Pradesh.
- Dr Sunita. D presented a paper on Green silver nanoparticles as new antimicrobial strategy against Multi Drug resistant bacteria, at National Conference on Integrating sustainable sciences with indian knowledge system. ISSIKS - 2026, on 19th & 20th March 2026, organized by Shri Rawatpura Sarkar University, Raipur.
- Dr Sunita. D presented a paper on Synergistic antimicrobial potential of ZnO-CuO nanocomposites compared to individual metal oxide nanoparticles against Multi-Drug resistance Bacteria, at International Conference on Synergy in science - Integrating diverse disciplines for sustainable technological evolution. SIS2K26 on 25th & 26th March 2026, organized by Little Flower college, Uppal.

- Dr. Roselin.P, Dr. Anitha Thomas and Dr. Gayatri V presented a paper on Indigenous Medicinal Heritage for Sustainable Health & well Being at National Seminar on Understanding India from Its Grounded Knowledge on 29th and 30th March 2026 organized by Boi Aarot Publication, Kolkata
- Ms. Natasha Selvina had presented a paper, Screening, characterization and isolation of DHA producing bacteria from natural sources in Two Day international conference on SCISUSTAIN fostering sustainable development through interdisciplinary scientific research organized by Faculty of science sponsored by CSIR, Kalinga University, September 17th, 18th 2025.

Papers Published/ Book Chapters

- Ms. Natasha Selvina (2025) published a paper, AI Driven Precision anticoagulant: a case study based approach on personalised warfarin therapy in International journal of artificial intelligence in medicine, Volume 3, issue 2, pp 33-44. ISSN No: 1873-2860.
- Gayatri (2025), Preparation of Nutritional Drink from Pineapple, Bioinfolet, Volume 22 (3), pp 370-371.
- Anitha Thomas (2025), Unveiling the Therapeutic Potential of Camellia sinensis Phytochemicals: A Computational Exploration of Ligand-Protein Interactions in Oral Biofilm Inhibition, Annual Research and Review in Biology, December 2025, vol 40(12), pp; 161-172
- Gayatri V (2025), Assessment of Biosorption potential of Lactococcus lactis isolated from Industrial effluent-contaminated soil, Bull. Env. Pharmacol. Life Sci., Vol 14 (12), 24-34
- Gayatri V (2025), Nanomicelled Yeast in Adsorption of Heavy Metals and Dyes, Bull. Env. Pharmacol. Life Sci., Vol 14 (12), 16-23
- Gayatri V (2026), Preparation and Analysis of Sushi from Millets, BIOINFOLET 22 (4), 410 – 412.
- Ms. Natasha Selvina (2025) published a paper, “In-silico analysis of Carbocyclic compound C₁₇H₁₅N₃O₆ against Cox-2 protein extracted from *Gymnema sylvestre* and *Terminalia arjuna*” POSTIF journal Volume 25, issue 5, pp 22-35
- Arsheen Tabassum (2025). “Beyond the Lab: Ethical, Legal and Social Implications

in Health Biotechnology”, BIO Web of Conferences 204, 01003 (IEM-HEALS)

<https://doi.org/10.1051/bioconf/202520401003>.

- Arsheen Tabassum (2025). *Exploration of enzyme-producing bacteria from Devakund Waterfall: A sustainable approach to harnessing freshwater microbial diversity*. In Proceedings of the International Conference on Sustainable Nanobiotechnology: An Eco-friendly Approach (organized in association with Case Western Reserve University). Shanlax Publications. ISBN: 978-93-6163-028-6.

Patents published

- Gayatri.V published a patent titled Green micelle alginate beads delivering curcumin enhance milk stability and shelf life. on February 27, 2026. Application no. 202641018044A
- Roselin Polugari published a patent titled Rapid microbe driven biosensor using microorganisms for visual detection of pesticide contaminants on March 20, 2026. Application no. 202641026412A.

Book Chapters

- Dr. K. Suman (2025) had published a book chapter on Green synthesis of silver nanoparticles and study of drug delivery system using Exopolysaccharides in Principles and applications of Nanoscience and Nanotechnology, Volume 1, First Edition, Chapter 14, Pages 221- 234, ISBN: 978-93-4867982- 6
- Dr. Roselin Polugari and Dr. Anitha Thomas (2025) published a book chapter on PBL for people, planet and process: A future ready approve to holistic education in Fostering Academic Partnership in Christian Higher Education institutions, Chapter 6, ISBN: 978-81-986886-0-6.
- Anitha Thomas (2026). Comparative Assessment of antibacterial activity of *Ocimum basilicum* and silver derived nanoparticles, Fundamentals and Emerging Applications of Nanoscience and nanotechnology, Vol 3, chapter 6, pp 80-101, ISBN: 978-93-48679-89-5

5. GUEST LECTURES ORGANISED

- A guest lecture on The Science of Possibilities, Career & Personal Journey was organized by the Department of Microbiology facilitated by the resource person, Ms. Jacquelyn, Senior Research Fellow from LV Prasad on July 15th, 2025 for the students of BSc IIIyr, and MSc IIyr Microbiology.
- A guest lecture on Precision, Personalization, Progress: AI in Modern Radiation Oncology was organized by the Department of Microbiology. facilitated by the resource person, Dr M Suneetha, Radiation Oncologist, Clinical Director, Yashoda Hospital on July 25th , 2025 for the students of BSc IIyr, IIIyr, and MSc IIyr Microbiology.
- A guest lecture on Host Pathogen Interaction was organized by the Department of Microbiology under DBT STAR college strengthening component scheme facilitated by the resource person, Dr Hameeda Bee, Associate Professor and Chairperson of the Board of Studies, Department of Microbiology, University College of Science, Osmania University, Hyderabad on September 11th 2025 for the students of BSc IIIyr, MSc Iyr and MSc IIyr Microbiology.
- A guest lecture titled “Host–Pathogen Interactions” was organized by the Department of Microbiology, facilitated by Prof. Hameeda Bee from Osmania University on September 11, 2025, for the students of B.Sc. II C and III C.

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

- Dr P Roselin has been awarded Excellence in Microbiology Education and Research award by ACT Now- NGO on account of Dr APJ Abdul Kalam independence Day celebrations at HITEX on August, 2025.
- Dr K. Suman has been awarded Excellence in Microbiology Education and Research award by ACT Now- NGO on account of Dr APJ Abdul Kalam independence Day celebrations at HITEX on August, 2025.
- Dr. Gayatri has been awarded Innovative Achiever award by St.Francis College for Women on Teachers Day celebration , September 2025.

- Dr. Anitha Thomas Completed Minor research project by St.Francis college for women on 31-8-2025 Hyderabad . The topic of the work is Comparative study of Antimicrobial activity of Camellia sinensis & Azadirachta indica leaf extracts on Oral Biofilm forming bacteria.
- Dr.Gayatri V completed SFC Minor Research project on 31-8-2025.The topic of the work is Bioremediation – A novel method to reduce heavy metals released from E-waste.
- Dr. Roselin received Minor research by St.Francis college for women on August 2025 . The topic of the work Nanobased formulations and nanobiotics as antimicrobial agents to combat AMR.
- Dr. Sunita received Minor research by St.Francis college for women on August 2025 . Antibacterial , antioxidant and cytotoxic properties of biosynthesized nanoparticles,
- Dr. Suman received Minor research by St.Francis college for women on August 2025 . Development of smart bandage and its In Vivo Evaluation of Wound Healing.
- Dr.Roselin P has been awarded with the Senior Scientist award by MBSI on 9th December 2025at JNU, New Delhi.
- Dr. Anitha Thomas has won, Best paper presentation award for paper on “Phytochemical, antimicrobial and effect of UV radiations on Camelia sinensis, Curcuma longum Trigonella foenum” at ICMIC’ 26: International conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026, on 9th January 2026, at St Francis college for women.
- Dr.Gayatri V has been awarded with Gold medal for Maximum contribution in Research by SFC on 23rd January 2026.
- Dr. Anitha Thomas was awarded the “Dr APJ Abdul Kalam Women Empowerment Excellence in Academic Leadership Award” at Hitex organised by ACT NOW on 29th March 2026.

- Dr D. Sunita won Best paper award on “Green synthesis of ZnO nanoparticles using Catharanthus roseus leaf extract, characterization and evaluating their antimicrobial activity against MDR Bacteria”, at International conference on Synergy in Science - Integrating Diverse discipline for sustainable technological evolution, in collaboration with International University, Malaysia, organized by Little flower degree college, Uppal on 25th & 26th March 2026.
- Dr. Arsheen Tabassum was awarded the Best Paper Presentation Award at the International Conference on BioTrendz Environmental and Sustainability in Science and Technology , organized by the Department of Biotechnology, Noida Institute of Engineering and Technology held on September 30, 2025.
- Dr. Arsheen Tabassum awarded with Women Scientist award by Society of Agriculture Research and Social Development (New Delhi), Susthayi Krishi Foundation (West Bengal) & Southern Federal University, Rostov-On-Don, Russia (2025).
- Dr. Arsheen Tabassum was honoured with a Recognition Award for invaluable guidance and mentorship provided to a student participating in the 18th Regional Science and Engineering Fair Telangana held on November 8, 2025.
- Dr. Arsheen Tabassum won First prize in oral paper entitled “Innovative Sustainable Therapeutics from Farm to Pharmacy: Harnessing medicinal plants for antibacterial defense against Multidrug-Resistant Bacteria in Diabetic Foot Ulcers” presentation at an “International Conference on Allied Sciences and Novel Trends in Resilient & Precision Agriculture" (2025).
- Dr. Arsheen Tabassum was awarded with the Best Paper Award for the paper titled “Revealing MDR Aerococcus viridans in diabetic wounds and the healing potential of Syzygium cumini seed extracts” at the 4th Annual Conference of Microbiologists Society India and 10th Annual International Conference of INSCR (TIBS-2025) at Jawaharlal Nehru University, held on December 10, 2025.

- Dr. Arsheen Tabassum won the Best Paper Presentation Award for the topic “Evaluation of medicinal plant seed extracts and their green synthesized nanoparticles for development of topical therapeutics against multidrug resistant skin infections” at a national conference organized by Shri Rawatpura Sarkar University on March 19, 2026.
- Ms. Natasha Selvina was awarded a Elite Bronze Certificate for the “ Cell Signaling” course organised by NPTEL SWAYAM, held on November, 2025.

8. STUDENT ACHIEVEMENTS (WINNER DETAILS)

For events:(at the College ,Inter-college , National, International)

- Ms Valla Rishitha from B.Sc 3c participated in International Conference on BIotrendz: Environment and sustainability in science and technology event organised by NIET , Noida on September 29th to 30th 2025 was awarded Best Certificate of Merit.
- Ms Varalakshmi participated in Rangoli competition event organised by Microaura @SFC a local chapter of MBSI and was awarded first prize by St Francis College for Women, Hyderabad
- Ms Mokshitha from BScIII yr participated in Rangoli competition event organised by Microaura@SFC a local chapter of MBSI and was awarded second prize by St Francis College for Women, Hyderabad
- Ms Paspuleti Supraja from PG II yr participated in Reel making competition event organised by Microaura@SFC a local chapter of MBSI and was awarded first prize by St Francis College for Women, Hyderabad
- Ms Lavisha Balani from BSc III yr was awarded best student in academics by Microaura@SFC a local chapter of MBSI and was awarded first by St Francis College for Women, Hyderabad.
- Ms VM Navya Shree from PG II yr was awarded Best student by MBSI (Microbiology Society, India)
- Ms Veditha Krishna Devireddy from BSc III yr was awarded Best student by MBSI (Microbiology Society, India)

- Ms. Vedita Krishna devi Reddy secured first prize in poster presentation entitled Computational Analysis of Lactate Oxidase from Multidrug resistant *Aerococcus viridans*: Insights into Drug and Phytochemicals interactions at 18th Regional Science and Engineering fair, Telangana, November 8, 2025.
- Ms Esthalamuli Snehalatha Reddy from BSc III yr was awarded Best student by MBSI (Microbiology Society, India)
- Ms G Vyshnavi from PG II yr was awarded as outstanding leader by Microaura@SFC a local chapter of MBSI, St Francis College for Women, Hyderabad
- Ms R Siva Naga Pavani from PG II yr was awarded for her maximum contribution towards club by Microaura @SFC a local chapter of MBSI, St Francis College for Women, Hyderabad
- Ms Carolyn Sipora from PG II yr was awarded for her maximum contribution towards club by Microaura@SFC a local chapter of MBSI, St Francis College for Women, Hyderabad
- Ms Meenakshi Praveen from BSc III yr was awarded for her maximum contribution towards club by Microaura@SFC a local chapter of MBSI, St Francis College for Women, Hyderabad
- M.Sc Microbiology II class has won The Best Outgoing class Award at St Francis college for women on 23rd March 2026.
- Ms. G. Vyshnavi from PG II yr was awarded All rounder: PG Award at St Francis college for women on 23rd March 2026.
- Ms Hima Bhavana has won, Best paper presentation award for paper on “Phytochemical, antimicrobial and effect of UV radiations on *Camelia sinensis*, *Curcuma longum* *Trigonella foenum*” at ICMIC’ 26: International conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026, on 9th January 2026, at St Francis college for women.
- Ms. Shravanti, M.Sc Microbiology II, won Best Poster for work titled Exploration of Endophytic Microorganisms from Medicinal Plants and their Antimicrobial Properties in the International Conference on Innovation in medicinal plants organized by RBVRR college on 12th February 2026.
- Ms Sai Lokeshwari won Best paper award on “Green synthesis of ZnO nanoparticles using *Catharanthus roseus* leaf extract, characterization and evaluating their antimicrobial activity against MDR Bacteria”, at International conference on Synergy in Science - Integrating Diverse discipline for sustainable technological evolution, in collaboration with International

University, Malaysia, organized by Little flower degree college, Uppal on 25th & 26th March 2026.

- Ms. Sumaiya, Ms. Mansi Kapoor and Ms. Zafeerah presented paper titled Screening of Plant extracts and Nanoparticles against Multidrug resistant pathogens for their therapeutic properties in the International Conference on Novel Therapeutics to Combat antimicrobial resistance: Collaboration, innovation & sustainability 2026 (ICMIC'26) organized by Department of Microbiology, St. Francis College for Women in association with Association of Microbiologists of India (AMI), Hyderabad Unit and Department of Biology, Case Western Reserve University, Ohio, USA on 9th January 2026.
- Ms. Veditha from B.Sc III C secured 2nd Position for paper presentation titled “Revealing MDR *Aerococcus viridans* in diabetic wounds and the healing potential of *Syzygium cumini* seed extracts in the 4th Annual Conference of Microbiologists Society, India and 10th Annual International Conference of the Indian Network for Soil Contamination Research (INSCR) on “Trends in Biological Sciences 2025 [TIBS-2025]” organised at JNU, New Delhi from 8-10, December, 2025
- Ms. Spurthi Sharma from M.Sc II Microbiology presented a paper titled Bacteriocin loaded silver Nanoparticles in Eye drop formulation in the Two-Day International Conference on SCISUSTAIN 2025 Fostering Sustainable Development through Interdisciplinary Scientific Research, Organized by Faculty of Science sponsored by the CSIR, India held at Kalinga University, Naya Raipur on 17th September 2025.
- Ms. Mansi Kapoor presented a research paper titled “Evaluation of medicinal plant seed extracts and their green synthesized nanoparticles for development of topical therapeutics against multidrug resistant skin infections” at the National Conference on Integrating Sustainable Sciences with Indian Knowledge System (ISSIKS 2026), held on 19th and 20th March 2026, organized by Shri Rawatpura Sarkar University.
- Ms. Veditha from B.Sc III C presented a paper titled “Histopathological evaluation of the wound healing potential of *Syzygium cumini* in diabetic Wister rats” at the National Conference on Integrating Sustainable Sciences with Indian Knowledge System (ISSIKS 2026), held on 19th and 20th March 2026, organized by Shri Rawatpura Sarkar University.

8. SOCIAL OUTREACH INITIATIVES

- 20 students from B.Sc IC, B.Sc III C, BC.MB.C & BT.MB.C, visited Prashanthi Old aged Home, Kukutapally along with Dr K Suman, Ms. K Swathi and Dr. Arsheen Tabassum on December 8, 2025
- 57 M.Sc Microbiology students along with 3 faculty Dr.Gayatri.V, Dr. Anitha Thomas and Dr.Sunita D visited Shankar Foundation for Differently challenged on December 9, 2025.

9. FIELD VISITS ORGANISED

- The Department of Microbiology organized a field trip to Cellpath Diagnostic Centre at Padmarao Nagar, Secunderabad, SIRI Diagnostic Centre at Ramnagar, and Micron Lifesciences, a research laboratory on August 14th, 2025, for BSc 3C (BTMBC & BCMBC) students accompanied by Dr. Suman and Dr. Arsheen Tabassum.
- A group of 24 students from MSc ,II Yr, visited Sensa core medical instrumentation pvt. Ltd. in Hyderabad for a field visit on August 14th, 2025 accompanied by Dr.V. Gayatri and Dr. D. Sunita.
- A group of 21 students from M.Sc II yr, visited Animal Husbandry Unit, Professor Jayashankar Telangana Agricultural University (PJTSAU), Hyderabad along with Dr. K Suman and Ms. Natasha Selvina on January 29, 2026.

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

- Microaura club organized an investiture ceremony of MicroAura club and organized guest lecture on Precision, Personalization, Progress: AI in modern radiation oncology by Dr.M.Suneetha, Radiation oncologist, Clinical director, Yashoda Hospital on July 25th 2025.
- MicroAura club organized International Microorganisms Day on 17th September 2025 with the aim of spreading awareness about significance of microorganisms in health, environment and industry.
- MicroAura club organized workshop on Microtome machine on September 17th 2025 at Vijay Marie Hospital for students of PG II year Microbiology.
- A rangoli and reel making competitions were conducted by Microaura@SFC on occasion of International Microorganisms Day in association with MBSI. About 5 students participated in the event.

Detailed club activities reports can be accessed through the below link.

https://docs.google.com/document/d/1h_C86QDf9phTx74JHuhYECqQYhOmNUa-vOMbC709XaM/edit?usp=drive_link

11. Student Exchange programmes

5 Faculty and 7 students attended Global Immersion Program at Case Western Reserve University, USA from May 6th to 16th 2025, organized by Department of Microbiology, St.Francis College for Women and Case Western Reserve University, Ohio, USA

The Study Abroad Program was attended by the following international students of the Department of Biology, Case Western Reserve University:

- Sanjana Tummala
- Misha Panchal
- Sri Sahanaa Chandramohan
- Sriya Talari
- Aarushi
- Keerthana

The Department of Microbiology organized a Study Abroad Program in Association with Case Western Reserve University, Ohio from 28th December 2025 to 9th January 2026 with the objective of providing international students with academic exposure, laboratory experience, institutional visits, cultural exchange and research-oriented learning. The program was designed to combine theoretical knowledge with hands-on laboratory training, field visits, project work, and cultural activities, thereby offering a holistic learning experience.

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

- Dr. P. Roselin and Dr. Arsheen Tabassum conducted a three-day workshop titled Tiny Earth partner instructor training hosted from January 6th to 8th 2026 in association with Tiny Earth, University of Wisconsin, USA and 6D varsity, attended by a total of 10 faculty from colleges in twin cities.

FDP Attended:

- Dr. Anitha Thomas attended FDP on Empowering faculty for Ethical Teaching in Digital Era conducted on June 2nd to 7th, 2025 organized by DMI engineering College Aralvarimozhi & Globethics, South-Asia Centre, Bangalore.
- Dr. Roselin.P, Dr. Gayatri .V & Dr. Anitha Thomas attended FDP on Generative AI Tools for Smart Teaching conducted on June 9th to 13th, 2025 organized by AIACHE.
- Dr. Roselin.P, Dr. Gayatri .V, Dr. Anitha Thomas, Dr. Sunitha, Dr. Arsheen Tabassum, K. Swathi, Dr. Suman, Ms. Natasha attended FDP on Recent Trends in Education- Staying Relevant As a Teacher in 2025 conducted on June 9th, 2025 organized by St. Francis college for women.
- Dr. Roselin.P, Dr. Gayatri .V, Dr. Anitha Thomas, Dr. Sunitha, Dr. Arsheen Tabassum, K. Swathi, Dr. Suman, Ms. Natasha attended FDP on Recent Trends in Education- Staying Relevant As a Teacher in 2025 conducted on June 24th, 2025 organized by IQAC, St. Francis college for women.
- Ms. Natasha attended FDP on ICT tools and Binary Accreditation for modern Higher Education Institutions conducted on July 23rd to 27th, 2025 organized by St. Joseph's First Grade College, Mysuru.
- Ms. Natasha attended FDP on A Systematic way of Research Paper Writing conducted on July 24th to 28th, 2025 organized by Research Foundation Of India & RFI Care.
- Dr. Roselin.P & Dr. Gayatri V attended FDP on Mainstreaming Indian Knowledge Systems in Higher Education conducted on July 16th to 22nd, 2025 organized by Amity University.
- Dr. Gayatri V attended FDP on Data Analytics and Visualization using MS Excel and Power BI conducted on September 8th to 12th, 2025 organized by A.V College of Arts, Science and Commerce and Mindspark Learning Hub.
- Ms. Natasha Selvina attended FDP on Cell Signaling organized by NPTEL - AICTE on Aug-Oct, 2025

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

- The Faculty Development Cell, in collaboration with IQAC, organised the sixth session of the Faculty Induction Program (FIP) on 'A Structured Approach to Developing Research

Proposals.' The session was led by Dr. V. Gayatri, Research Coordinator and Associate Professor, Dept of Microbiology on 27th January 2026.

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

- Dr. Anitha Thomas conducted the capacity building programme for the Administrative Office Staff, Exam Branch, IT, IQAC Office assistant on September 27th , 2025. The resource person for the same was Ms. Mini Fernandez and Mr. Alexi Chrislin Gym Instructor & Zumba Trainer and the topic was “Outbound & Zumba Session”

15. Any other:

Faculty As Resource Person :

- Dr. Anitha Thomas delivered lecture on Exams@SFC conducted on July 25th ,2025 organized by Faculty development cell & IQAC , St.Francis college for women.
- Dr.Roselin.P delivered lecture on Synergy for success: community globalization and ranking excellence on September 10th 2025 organized by Faculty development cell & IQAC , St.Francis college for women.
- Dr.Roselin P delivered lecture on Mapping the road to Accreditation : Your role in IQAC and NAAC on August 22nd 2025 organized by Faculty development cell & IQAC , St.Francis college for women.
- Dr.Gayatri. V delivered lecture on Research@SFC on September 26th 2025 organized by Faculty development cell , St.Francis college for women.
- Dr.Roselin.P and Dr.Gayatri delivered a lecture on Nanoformulations as antimicrobial agents to combat skin and scalp infections for the students of Case Western University as part of Study abroad program on September 10th 2025.
- Dr.Arsheen Tabassum and Dr.Sunita D delivered a lecture on Assessment of natural extracts and nanoparticle formulations in combating Multidrug resistant pathogens for the students of Case Western University as part of Study abroad program on September 16th 2025.

- Dr.Roselin.P was a resource person for a one-day faculty workshop titled “After the MOU: Best Practices to Activate U.S.–India Academic Partnerships” conducted on January 16, 2026, and organised by the Centre for International Studies, St. Francis College for Women and American Corner Hyderabad.
- Dr.Arsheen Tabassum delivered a Guest lecture on In vitro and In silico evaluation of Plant extracts and Chemically synthesized Nanoparticles against MDR Aerococcus viridans from Diabetic wound Infections for the students of Case Western Reserve University, USA as a part of Study Abroad Programme on 17th Feb 2026.



Dr.Roselin.P

Head, Department of Microbiology