

**St. Francis College for Women**  
**Annual Progress Report supported under Star College Scheme,**  
**2025-26**

1. Name of the College : St Francis College for Women
2. Name of the coordinator. : Dr. Gayatri. V  
 Designation : Associate Professor, Department of Microbiology  
 Address : St. Francis College for Women,  
 Begumpet, Hyderabad  
 Phone No : 9704103888
3. Assessment duration : 08/08/2025 to 31/03/2026  
 Duration in years : 1 year
4. Details of Departments Supported

SI No	Name of Department	Courses (B.Sc./M.Sc./ PG Diploma, certificate etc) offered	Regular Faculty members	
			With Ph.D.	Without Ph.D.
			<b>Total = 82</b>	
1	Biochemistry & Nutrition	B. Sc	5	6
2	Botany & Biotechnology	B. Sc	3	3
3	Chemistry	B. Sc., M. Sc.	11	4
4	Computer Science	B. Sc, M.Sc	1	19
5	Mathematics & Statistics	B. Sc, M. Sc	7	3
6	Microbiology	B. Sc , M. Sc	6	2
7	Physics & Electronics	B. Sc	2	1
8	Zoology	B. Sc	3	1

5. Number & Date of Advisory committee meeting: 1 , 22/07/2025  
Internal meetings with the faculty : 8 (Principal, Vice Principal, DBT coordinator, Dean of Science, HoDs and Department coordinators).
6. Qualitative improvements due to DBT support.
- Practical learning was strengthened through field visits, supporting both theoretical and applied understanding.
  - Project work provided students with direct practical exposure.
  - Guest lectures offered specialized insights, enhancing the curriculum.
  - Faculty participation in workshops contributed to overall academic development.
  - Strengthened laboratory infrastructure with advanced instrumentation.
  - Improved technical skills through workshops and hands-on training and enriched curriculum with interdisciplinary and emerging topics.
  - Enhanced student exposure to research and industry practices while strengthening collaborations with industries and research organizations.
  - Improved academic output through paper presentations.

**Summary:**

Projects	51
Student & faculty training program	9
Guest Lectures & Workshops	33
Field trips	11
Outreach Activity	1
National seminars/ Conferences	2

**1. Projects:** About 51 students have completed the projects which focused on the scheme's objectives promoting research and skill development in science. The projects were carried out using the instruments procured through the DBT grant of the previous year. The project areas included diverse areas including molecular biology, microbiology, phytochemistry, food science, hydroponics, organic synthesis, nanoparticle synthesis and applications, computational studies, molecular docking and media psychology. They focus on experimental studies such as antimicrobial activity, antioxidant evaluation, plant growth optimization, food formulation, and biochemical characterization, along with investigations into bacterial genetics, DNA interaction mechanisms, dye adsorption from polluted water and photocatalytic applications. Additionally, the topics address applied aspects like food safety, nutraceutical development, hydroponic agriculture, and the influence of social media on food-related perceptions and behaviour.

<b>S. No</b>	<b>Roll Number</b>	<b>Names of the Students</b>	<b>Topic</b>	<b>Name of the Institution Joined</b>
1	121323057006	Cliveri Kavitha	DNA cleavage Mechanism of action by Iron complexes with amino acids derived Schiff bases	St. Francis College for Women
2	121323057021	Mokshitha Akkala	Characterisation of peptidoglycan editing factor mutant of <i>Xanthomonas oryzae pv.oryzae</i>	St. Francis College for Women
3	121323056024	Pamulapati Tanmaya	Phytochemical and Antioxidant Evaluation of <i>Senna auriculata</i> : A Comparative Study of Aqueous vs. Organic Extraction	St. Francis College for Women
4	121323053025	Tanishq	Immediate Effects of Social Vs Traditional Media Food Content on Perceived Credibility and Food Cravings Among Young Women.	St. Francis College for Women
5	121323053003	Sri Kirti	Formulation of Mochis enriched with Butterfly pea flower	St. Francis College for Women
6	121323053028	Vaishnavi	Chemical Safety in the Food Chain assessing and Validating Decontamination methods.	St. Francis College for Women

7	121323041015	Puppala Shria	Phytochemical screening and antibacterial analysis of the ethanolic extracts of <i>Cassia auriculata</i> on selected strains of gram-negative and gram-positive bacteria	St. Francis College for Women
8	121323055005	D. Harshitha	Effects of Ph variations and nutrient concentration on Spinach grown in Hydroponics	St. Francis College for Women
9	121323055006	D. Jyothigna	Effects of pH and TDS (Nutrient concentration) Differences on Growth, Root Morphology and Biochemical Parameters of <i>Amaranthus spp.</i> in Hydroponic System	St. Francis College for Women
10	121323055012	Khadija Suhail	Analysis of phytochemicals and antimicrobial activity of <i>Cleome viscosa</i> L. Plant	St. Francis College for Women
11	121323055023	R. Aakanksha	Phytochemical analysis and antimicrobial screening of <i>Annona reticulata</i> leaves and seeds against gram positive and gram-negative bacteria	St. Francis College for Women
12	121323051007	Dominic Rachel	Biosynthesis And Therapeutic evaluation Of <i>Trichosanthes dioica</i> peel mediated Silver and zinc Nanoparticles	St. Francis College for Women
13	121323051016	M. Kavya	Green Synthesis And Therapeutic Evaluation of <i>Sechium edule</i> peel mediated Silver and Zinc Nanoparticles	St. Francis College for Women
14	121323051006	Dosapati Pallavi	Bioprospecting Traditional Indian Fermented Foods For Novel Probiotic Strains Through Functional and Molecular Characterization	St. Francis College for Women
15	121323050008	B. Tirzah Mrudula	Bio exploration Of Traditional Fermented Foods for Isolation, Characterization and Functional Evaluation Of Lactic Acid Bacteria	St. Francis College for Women
16	121323051013	Lakhya Sharma	Physico-Chemical and Microbiological Characterization of Musi River Water with Screening of Medicinal Plant Extracts for Antimicrobial Activity	St. Francis College for Women

17	121323056008	Chenna Harshitha	Assessment of Fox Sagar Lake Water Quality and Evaluation of Antimicrobial Activity of Selected Medicinal Plants.	St. Francis College for Women
18	121323051027	Rida Abdul Khadeer	Assessment of Khairatabad Lake Water Quality and Antibacterial Screening of Selected Plant Extracts Against Waterborne Bacteria	St. Francis College for Women
19	121323050001	Aafreen	Screening of Laccase producers and study of their applications	St. Francis College for Women
20	121323050026	Lavisha Balani	Screening of bioremediation properties of Bacillus species isolated from hydrocarbon contaminated soil	St. Francis College for Women
21	121323057028	Moukthika Vadrevu	Antibacterial resistance in <i>Aerococcus viridans</i> and mechanism of macrolide resistance mediated by the ermB gene	St. Francis College for Women
22	121323050041	Veditha Krishna Devireddy	Antibiotic resistance profiling of <i>Aerococcus viridans</i> : Detection of OprA gene and in-silico screening of phytochemical FtsZ inhibitors	St. Francis College for Women
23	121323056028	Sanskriti Kumari	"In Silico Identification of Potential EGFR Inhibitors Using Virtual Screening, Molecular Docking and DFT Studies for Cancer therapy"	St. Francis College for Women
24	121323056025	T. Pavitra	Computational Approach for PPAR $\gamma$ Protein Structure Modelling, Validation AND Molecular Docking for Potential Diabetic Therapeutics	St. Francis College for Women
25	121323056025	Egala Bhargavi	Structure Based Identification of Novel PFKFB3 Inhibitors of Anticancer Drug Discovery	St. Francis College for Women
26	121323061002	Fareeha Khan	Comparative synthesis of bis-chalcone under conventional and non-conventional conditions and its conversion into 1,3-thiazine heterocyclic scaffold	St. Francis College for Women
27	121323061025	Sripuram Naveena	Synthesis, characterisation and cyclization of cyclohexanone-derived bis-chalcone: A route to 1,3-thiazine scaffolds via thiourea mediated heterocyclization	St. Francis College for Women

28	121323050010	Bongarala Santoshi	Synthesis, characterization and antibacterial activity of substituted Benzylidenemalononitriles via Knoevenagel condensation of aromatic aldehydes with malononitrile	St. Francis College for Women
29	121323050021	Katuri Sri Sai Sri Lakshmi Samhitha Katuri	Green synthesis of $\alpha,\beta$ unsaturated nitriles: A study of Knoevenagel condensation under microwave conditions and their antibacterial activity	St. Francis College for Women
30	121323056026	Purimetla Rohini	Synthesis, characterization and antibacterial evaluation of novel Schiff bases derived from substituted benzaldehydes and primary amines	St. Francis College for Women
31	121323056027	Sahaya Emylin Stanica	Design, characterization and molecular docking studies of Schiff base ligands for potential biological applications	St. Francis College for Women
32	121323041021	Agnes Mathew	Green synthesis of ZnO Quantum dots using neem leaf extract for the potential biological applications	St. Francis College for Women
33	121323041007	Faieza Binte Amin	Phyto Mediated synthesis of ZnO Quantum dots - Characterization and biological evaluation	St. Francis College for Women
34	121323050038	S. B. Vaishnavi	Biosynthesis of CdS supported Ta <sub>2</sub> O <sub>5</sub> for Photocatalytic applications	St. Francis College for Women
35	121323050034	S. Sruthi Sahasra	Green synthesis of CdS doped Ta <sub>2</sub> O <sub>5</sub> nanoparticles for visible light driven photodegradation of Methylene blue	St. Francis College for Women
36	121323057011	J. Nilaya	Green synthesis of CdS/ Ta <sub>2</sub> O <sub>5</sub> nanocomposites for photocatalytic applications	St. Francis College for Women
37	121323041010	G. Tharani	Adsorptive removal of Dyes from textile effluents using Low cost and Sustainable Adsorbents	St. Francis College for Women
38	121323041011	K. Krishna Gayathri	Adsorption based remediation of Textile Industry wastewater: Performance and mechanistic insights	St. Francis College for Women
39	121323061011	Koojitha Janga	Novel Schiff Base synthesis, Characterization and their active biological studies	St. Francis College for Women

40	121323061023	R.Sathwika	Synthesis of Iron Oxide Nanoparticles, characterization and it's applications	St. Francis College for Women
41	121323061012	K.Sujana Reddy	Synthesis of Iron oxide nanoparticles, characterization and its application	St. Francis College for Women
42	121323050017	Yashoda Preethi	Green synthesis of silver nanoparticles from ashwagandha and it's applications	St. Francis College for Women
43	121323057020	Meenakshi Praveen	Green synthesis of silver nanoparticles from ashwagandha and it's applications	St. Francis College for Women
44	121323050006	Anireddy Nikhita	Eco-Friendly Microwave-Assisted Synthesis and In Vitro Biological Evaluation of Schiff Bases from Cyanoacetohydrazide	St. Francis College for Women
45	121323050012	Cherukuru Lekhana	Environmentally Benign Synthesis and Multimodal Biological Studies of 5-Nitro-2-Hydroxybenzaldehyde-Derived Schiff Bases and Their Fe (II) Coordination Compounds	St. Francis College for Women
46	121323061021	Hemanjali Ramireddy	Speciation Studies on the interaction of Succinicacidihyrazide, Alanine and Phenylalanine with essential and toxic metal ions	St. Francis College for Women
47	121323050020	K. Srushitha Yadav	Development of a low-cost natural pH testing kit for school science education	St. Francis College for Women
48	121323042007	K. Sri Sharanya	Thermoelectric Energy Harvesting of floral offerings and adsorption studies	St. Francis College for Women
49	121323050042	Y. Haveela Rani	Molecular Docking and ADMET Analysis of Selected Ligands Against Mycobacterium Tuberculosis Protein 5V3Y	St. Francis College for Women
50	121323057024	S. Pravallika	In silico studies on the potential inhibitors of Pancreatic Cancer using Molecular Docking and Pharmacokinetics	St. Francis College for Women
51	121323041020	Nikodi Mounika	Exploring Potential Acetylcholinesterase Inhibitors for Alzheimer's Disease: A Molecular Docking and ADMET Analysis	St. Francis College for Women

2. **Outreach:** The Science Department organized a social outreach programme, **GLEE**, for school students to promote scientific temper and curiosity. Around 35 live science experiments and models were designed and demonstrated to make learning interactive and engaging. The initiative helped students understand scientific concepts through hands-on experience and encouraged interest in science education.
3. **Student and Faculty training:** Hands on training programmes for students were organized to cultivate a productive and engaging learning environment. 9 programmes were organized across various departments.
4. **Guest lectures/ Workshops:** To enhance the learning experience and provide valuable insights from experts across various fields, a total of 33 guest lectures and workshops were organized during this year. These sessions exposed students to current trends, practical knowledge, and interdisciplinary perspectives. They also encouraged interaction with experts, enriching academic understanding and skill development.
5. **Field Trips:** The departments organized 11 field trips to enhance students' learning experiences and provide practical exposure related to their academic subjects. These visits covered industries, research institutes, laboratories, and natural reserves aligned with curriculum objectives. The field trips helped students gain hands-on understanding, observe real-time applications, and strengthen experiential learning.

Link for the details of Qualitative improvements due to DBT support.

### **DBT ANNUAL REPORT 2025-2026**

**6. Any Novel aspect introduced or planning to introduce during the Scheme duration.**

<b>Activity</b>	<b>Novel aspects introduced</b>	<b>Planning to introduce</b>
<b>Project based learning</b>	Phytochemical screening and antimicrobial activity of medicinal plants	Extension of the current projects on Synthesis and Evaluation of Nanoparticles, Lactobacillus as Probiotics and Analysis of different water samples in and around
	Study on the cultivation of leafy vegetables using hydroponics under varying levels of pH and TDS.	
	Antioxidant Assay-DPPH method, DNA Cleavage Studies, Adulteration, Polyphenol Profile	
	Characterization of magnetic materials and green energy.	
	Mini projects in different areas of Chemistry by 211 students of B.Sc. III year.	
<b>Training Programme</b>	Cultivation of Mushroom	Training Program On 'Laboratory Safety & Quality, Good Lab Practice, Food Hygiene & First Aid' for Lab staff
		Training Program On different simulation softwares and Modelling
	College Teachers' Training Program On 'Bridging Theory and Practice in Clinical Nutrition'	Planning a mini MTTTS Programme for staff and students of various colleges.
	College Teachers Training Program On 'Simulations and Computer Interfaced UG Physics Practicals	Training in basic instrumentation and Computer skills for non-Teaching staff from other colleges
	Faculty improvement program in Research Based Pedagogical Tools (RBPT)	
<b>Workshop</b>	Inter college Workshop on Animal Cell culture and Analysis of viability	Planning for a workshop on basic molecular techniques for undergraduate students
	Molecular Docking	Planning to initiate basic pollen studies using Air sampler procured under DBT grant
	Concept to Carton	

	Solar energy and composites		
	A Two-Day Inter-College Robotics		
	Workshop on NMR Spectroscopy: A Key to Unlocking Molecular Structure		
<b>New experiments</b>	Western Blotting Technique		
	Introduced Gel electrophoresis technique for B. Sc final year students after organising a workshop		
	Cultivation of Anaerobic bacteria from dental samples and acne		
	Estimation of micronutrients.		
	Determination of gluten formation.		
	Assessment of nutritional assessment using body composition analyzer.		
	Estimation of Thiamine & Riboflavin using Fluorimetry		
	Estimation of Sodium and Potassium ions using flame Photometer		
	Determination of specific rotation of sugars using Polarimeter.		
	Absorption lines in Rotational spectrum of Iodine Vapour		
	Resistivity by Four probe Method		
	Magnetic susceptibility of materials		
	$e/m$ by Thomson's method		
	Fibre optic communication		
	Experiments using Microcontroller		
	Potentiometric titration of HCl Vs NaOH		
	Potentiometric titration of FAS Vs $K_2Cr_2O_7$		
	Microwave assisted synthesis of Organic compounds		
		Introduced green synthesis with atom economy calculations.	

<b>New approaches</b>	Theoretical principles were effectively translated into practical applications through the execution of mini projects.	
	Industrial training in chemistry provided hands-on experience to the students, that bridges classroom learning with real-world laboratory practices.	
<b>Entrepreneurship</b>	Training in Animal and plant tissue culture enable entrepreneurship by supporting large-scale production of disease-free plants and valuable biological products	
	Product Development - Formulation of Mochis enriched with Butterfly pea flower	
	Hands-on exposure to freshwater pearl culture, silkworm rearing for silk production, and vermiculture/composting	
	Guest Lecture on “IPR Management for Start-ups and Regulatory Affairs & IP Management Training”.	

7. Lessons learnt / difficulties faced/suggestions if any, in implementation of the programme and utilization of DBT grant. (Max 3 points within 300 words).

- **Lessons learnt:**

- The DBT Strengthening Component has significantly contributed to the enhancement of departmental infrastructure through the procurement of state-of-the-art instrumentation facilities. This augmentation has expanded opportunities for undergraduate students to undertake minor research projects and engage in analytical studies within the departments, thereby fostering a strong foundation in scientific inquiry and research aptitude. Furthermore, the component has facilitated the organization of various academic activities, including seminars, workshops, hands-on training programmes, and field visits to research institutes. These initiatives have collectively contributed to the overall academic enrichment and research-oriented learning environment for students.

- **Difficulties/Suggestions:**

Some of the difficulties encountered include delays in procurement procedures and limited time for optimal utilization of newly acquired instrumentation .

It is suggested that streamlined procurement mechanisms be introduced to reduce delays, along with provision for extended utilization periods to maximize the use of instrumentation facilities. Furthermore, enhanced flexibility in budget heads and timelines would facilitate more effective planning and implementation of academic activities.

## 8. Key performance indicators

S.No.	Indicator	Pre-support (2022-2023)				During Support (2023-2024)				During Support (2024-2025)				During Support (2025-2026)				Remarks
1.	No. of students admitted	Total =1067				Total =1215				Total =1156				Total = 996				
		Only Females				Only Females				Only Females				Only Females				
		SC	ST	OB C	GEN	SC	ST	OB C	GEN	SC	ST	OB C	GEN	SC	ST	OB C	GEN	
		82	24	325	636	102	21	535	557	74	28	378	676	88	25	33 4	54 9	
2.	No. of student passing out (%) Students Admitted/ passing out (pass %)	UG-94%				UG – 89%				UG -90%				UG – 96%				
3.	Drop-out rates	3%				4%								4%				
4.	No. of Student opting for M.Sc	600				700				700				700				
5.	Average marks	8.20				8.41								8.7				
6.	No. of hands-on experiments being conducted	U. G Curriculum based experiments.																
		Biochemistry & Nutrition												4				
		Botany & Biotechnology												5				
		Chemistry												6				
		Computer Science												5				
		Mathematics & Statistics												6				
		Microbiology												2				
		Physics & Electronics												5				
7.	No. of new experiments introduced	Biochemistry & Nutrition												6				2 proposed
		Botany & Biotechnology												1				
		Chemistry																
		Computer Science																
		Mathematics & Statistics																
		Microbiology																
		Physics & Electronic												6				
		Zoology												-				
8.	Publications (Scopus indexed) / patents, if Any													6				2 communicated
9.	Training received by faculty and student													Biochemistry & Nutrition -1 Botany & Biotechnology-2 Chemistry -3 Microbiology - 2 Physics & Electronics -2 Mathematics & Statistics -8				
		Biochemistry & Nutrition												4				
		Botany & Biotechnology												9				

10.	Exhibitions/ seminars / Training courses conducted	Chemistry			8	
		Computer Science			3	
		Mathematics & Statistics			2	
		Microbiology			3	
		Physics & Electronic			5	
		Zoology			2	
11.	Books/journals subscribed from grant				Zoology – 16 Mathematics & Statistics - 73	
12.	Outreach activities – (Popular lectures)				1	
13.	College mentored to apply for DBT Star College grants				-	
14.	Invited lectures	Biochemistry & Nutrition			3	
		Botany & Biotechnology			2	
		Chemistry			2	
		Computer Science				
		Mathematics & Statistics				
		Microbiology			1	
		Physics & Electronic			1	
		Zoology			1	

- Proofs (S.No. 6-14 not more than 5 pages, 1.5-line spacing 11 times roman font size) to be provided duly attested by Principal and Coordinator.

## Workshops

### 1. Workshop on ‘CONCEPT TO CARTON’

The Department of Nutrition had organized a **Workshop on ‘CONCEPT TO CARTON’** under DBT STAR COLLEGE (Strengthening Component) for the students of B.Sc Nutrition. The event was attended by 8 faculty members & 80 students. The resource person for the same was Ms. Sindhura, Assistant Professor, Malla Reddy University.

## Objectives

- To provide practical insights into the process of food product development, from innovation and labeling to packaging and marketing.
- To enhance understanding of food labeling regulations, E-number coding, and FSSAI-compliant packaging materials.
- To emphasize the importance of advertising and marketing in the successful launch of food products.
- To inspire students with real-world examples, including a nutrition-focused food product developed to combat anaemia in tribal communities

## Outcomes

- Students gained a comprehensive overview of the end-to-end process of food product development.
- They understood the significance of accurate labeling, sustainable packaging, and effective marketing in ensuring product success.
- The session reinforced theoretical concepts with real-life applications, although some students noted the content had been previously covered in class.
- The workshop highlighted the interdisciplinary nature of food innovation, combining science, creativity, and market strategy.



## 2. Hands-on workshop on Molecular Docking: Computational Modelling of Protein Ligand Interactions

The Department of Biochemistry organized a Hands-on Workshop on Molecular Docking: Computational Modelling of Protein Ligand Interaction under DBT STAR COLLEGE (Strengthening Component) for the Final year students (IIC & IIF). Around 54 students and 3 faculty members participated during the workshop. The resource person for the hands-on workshop was Dr. Monika Kallubai -Assistant Professor of Biotechnology, Rayalaseema University, Kurnool.

## Objectives

- Introduce the fundamental concepts of molecular docking.
- Provide hands-on training to students in molecular docking workflows.
- Train students to use molecular docking software and tools.

## Outcomes

- Students prepared protein and ligand structures for docking studies.
- Students performed molecular docking using computational tools.
- Analyze and interpret docking results.

St. Francis College for Women  
Begumpet, Hyderabad-500016  
(Autonomous & Affiliated to Osmania University)

Resource Person

**Dr. Monika Kallubai**  
Assistant Professor of  
Biotechnology  
Rayalaseema University,  
Kurnool

Ligand

**DBT STAR COLLEGE**  
(Under Strengthening Component)

**Department of Biochemistry**

Organizes a  
**Hands-on Workshop on**

**Molecular Docking: Computational Modelling  
of Protein ligand Interactions**

For B.Sc final year (3F and 3C) Biochemistry Students

Date : 31<sup>st</sup> January, 2026    Time : 9:00 am to 12:30 pm    Venue : Computer Lab 1

Hyderabad, Telangana, India  
6, Street Number 6, Uma Nagar, Begumpet,  
Hyderabad, Telangana 500016, India  
Lat 17.437344° Long 78.461294°  
Saturday, 31/01/2026 10:13 AM GMT +05:30

### 3. Joint Workshop at AIG Hospitals

Under the **DBT STAR COLLEGE** Scheme (Strengthening Component), The Department of Biotechnology had organized a joint Workshop on Molecular Techniques on 23<sup>rd</sup> August, 2025 from 9:00 AM to 4.00PM for the Final year Biotechnology students at **Asian Healthcare Foundation-AIG Hospitals, Hyderabad**. The session was delivered by **Dr. V.V.Ravikanth**, who introduced students to the fundamental structure of DNA, its molecular components, and the distinction between **somatic and germline variants**. The session was attended by 40 students and 2 faculty members from the Department of Biotechnology.

### Objectives

#### To assist students in understanding

- various genetic detection techniques such as Restriction Fragment Length Polymorphism (RFLP), Single-Strand Conformation Polymorphism (SSCP), Reverse Transcription PCR (RT-PCR), Microarray analysis, DNA sequencing, and Next Generation Sequencing (NGS)
- The concepts of genetic prediction and pedigree analysis

### Outcomes

#### The students will gain

- Practical understanding of key techniques such as Polymerase Chain Reaction (PCR), Spectrophotometry, Nanodrop One, Next Generation Sequencing, Ion Gene Studio S5 Semiconductor Sequencer
- Understanding of biomaterials and tissue engineering on 3D Bioprinting Technology
- Comprehensive knowledge in applications of Stem Cells in diagnostics
- Exposure to real-world research environments and cutting-edge technologies, bridging the gap between academic study and practical implementation.



#### 4. Workshop and Hand's on session on “Gel Electrophoresis Technique”

The Department of Botany organized a Workshop and Hand's on session on “Gel Electrophoresis Technique”. Around 35 students of III – year BZC/ANBC with 2 faculty members participated. The speaker for the event was **Ms. Sristishila Baruah, PMRF, Ph.D Research Scholar, Department of Plant Sciences, School of Life Sciences, University of Hyderabad.**

#### Objectives

- Introduce students to the core concepts behind gel electrophoresis, make them understand the concept in extracting DNA from plant samples and migrate through a gel matrix under an electric field.
- Enable students to actively participate in preparing agarose gels, loading samples, running the electrophoresis apparatus, and visualizing results
- To make students understand how to read electrophoresis band patterns, estimate molecular sizes using DNA ladders, and identify potential errors or troubleshooting steps in a typical experiment.

#### Outcomes

- Students understood the core principles and applications of gel electrophoresis, including DNA separation by size and charge.
- Students gained practical experience in gel preparation, sample loading, running electrophoresis, and visualizing DNA bands, enhancing their lab technique and safety awareness.
- The session improved students' problem-solving skills and fostered effective teamwork.

## 5. Report on Workshop on “Cultivation and Processing of Medicinal Plants”

**Date: 08.12.2025**

**Time: 10:30 am to 1:30 pm**

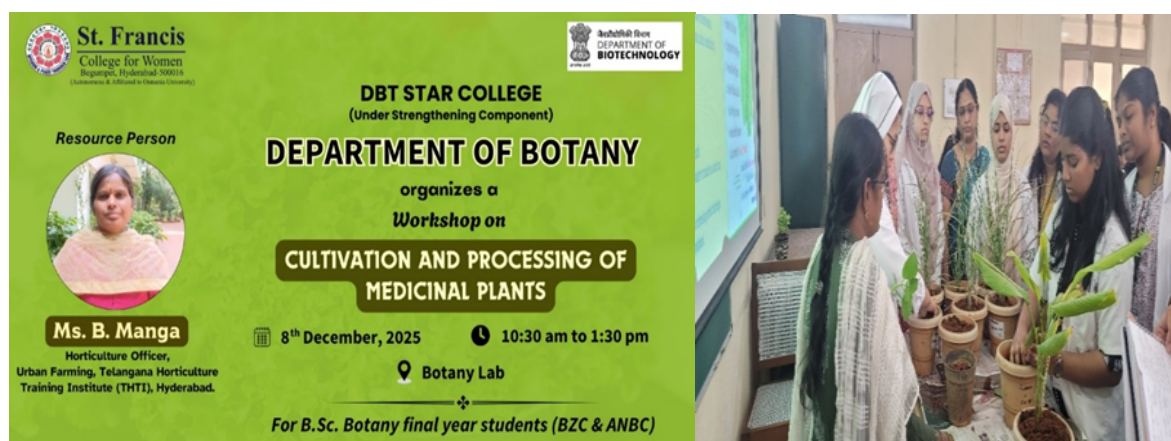
The Department of Botany organized a workshop on “Cultivation and Processing of Medicinal Plants”. Around 35 students of III – year BZC and ANBC with 2 faculty members participated. The speaker for the event was **Ms. B.Manga, Horticulture Officer, Urban Farming, Telangana Horticulture Training Institute (THTI), Hyderabad.**

### Objectives

- To develop scientific understanding of medicinal plant cultivation practices, including propagation methods, soil requirements, and crop management. And to know their uses, and importance in traditional and modern healthcare systems.
- To provide basic knowledge of cultivation and processing techniques of medicinal plants, including propagation, harvesting, and post-harvest handling.
- To create awareness about career and research opportunities in medicinal plant cultivation, herbal industries, and related fields.

### Outcomes

- Students gained practical exposure to the scientific methods of planting medicinal plants, including site preparation, appropriate spacing, and irrigation practices.
- Students developed a clear understanding of the propagation and cultivation techniques of medicinal plants such as Tulsi, Aloe vera, Lemongrass, and Turmeric through hands-on training.



### 6. 3-day Hands on Workshop in DNA Fingerprinting

Under the DBT STAR COLLEGE Scheme (Strengthening Component), The Department of Biotechnology in collaboration with Genome Foundation had organized a 3day Hands-on- Workshop in DNA Fingerprinting at Genome Foundation, Hyderabad from 18 th –20 th December, 2025. The resource persons for the workshop were Dr. G.V.V. S Kanaka Bhushanam, Research Director, Dr. Gandhi P.C. Kaza, Managing Director, Alanka Ketan Kumar, In Charge Specific Operations and Academics, Dr. Pavani and Gargi Deshmukh Scientist in charge, Genome Foundation. A total of 47 BSc 2nd yr Biotechnology students actively participated in the workshop.

### Objectives

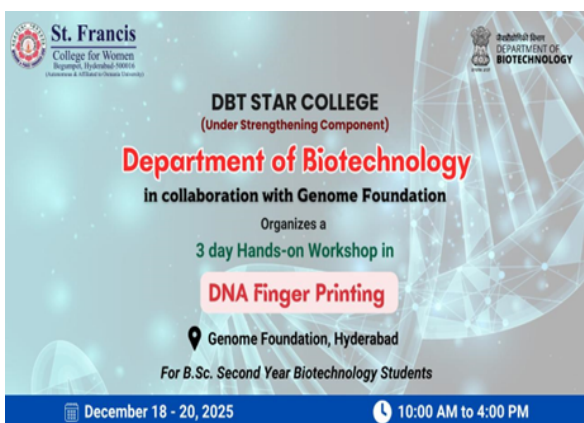
#### To assist students

- In theoretical understanding and practical exposure to laboratory techniques such as DNA extraction, PCR amplification, and STR analysis.
- To understand the workflow of forensic investigations.
- To understand Fingerprinting in the Criminal Justice System

### Outcomes

#### The students will have

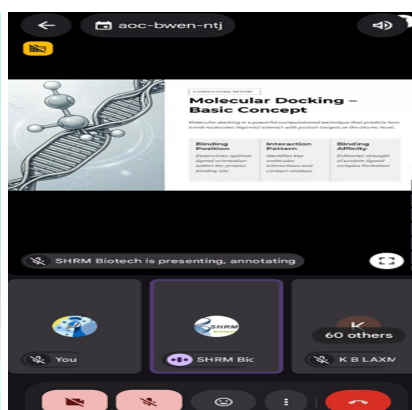
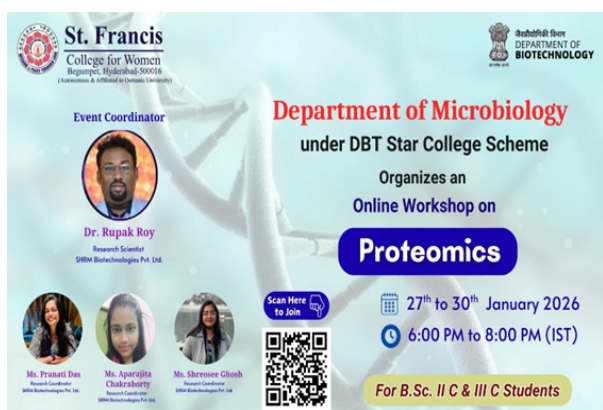
- A deeper comprehension of DNA finger printing techniques, STR data analysis and interpretation
- Aspiration towards a promising career in Forensic Science



## 7. Workshop on Proteomics

### Outcomes

- Gained hands-on understanding of protein databases and retrieval tools.
- Developed basic knowledge of molecular docking and computational analysis.
- Learned fundamental concepts of in silico vaccine designing.
- Enhanced skills in applying bioinformatics approaches to biomedical research.



## 8. Report on Workshop on HPLC

### Outcomes

- Participants understood the operational workflow of an HPLC system.
- Gained practical insight into instrument handling and parameter selection.
- Improved ability to read and interpret chromatographic data.
- Enhanced foundational skills in analytical and separation techniques.



## 9. Two-day Hands-on training on “Nuclei Implantation techniques in Pearl Culture”

The Department of Zoology, in association with Indian Pearl Farm, and sponsored by DBT under Strengthening component organized a two-day Hands-on training on “Nuclei Implantation techniques in Pearl Culture” on 28<sup>th</sup> & 29<sup>th</sup> January, 2026. The Resource person for the event was Mr. Nanjappa Puggera, Founder and Lead Trainer, Indian Pearl Farm, Karnataka, India. The event was organized for the Final year students of B.Sc IIIA and IIN in Zoology Lab, SFC. 50 students participated in this program along with 4 faculty from the zoology department.

### Objective

To Empower students with hands-on pearl culture skills, bridging science with sustainable entrepreneurship for a brighter future.

### Outcomes

- Solve practical challenges in pearl farming
- Develop entrepreneurial insight into pearl markets
- Gain technical skills in nuclei implantation & mussel care
- Integrate zoology knowledge with real-time practices
- Foster holistic growth through sustainable skill-building



## 10. Workshop on “Embedded System and IoT”

The Department of Electronics organized a hands-on training workshop on the topic “Embedded System and IoT” under DBT STAR COLLEGE, Strengthening Component, for the B.Sc students of III year (M.E.CS). Around 40 students and one faculty member participated. The resource person for the event was Mr. Vijayan from Pantech e-Learning.

### Objectives

- The primary objective of the session was to enhance the students' knowledge in electronic skills and embedded systems.
- Apply the knowledge in the IoT field which will help the students to pursue a career as embedded engineer or an IoT professional with this hands-on training workshop.

### Outcomes

- Basic programming in Arduino IDE Micro controller including GPIO manipulation. Embedded C programs were implemented.
- Soil moisture Sensor, LDR Sensor, OLED DISPLAY, IP address Sensor, Ultrasonic Sensor using Arduino with this system.
- Comprehensive understanding of real-life applications and conducted an in-depth study of core components like micro controllers.

The poster is for a one-day workshop titled "Embedded System and IoT" organized by the Department of Electronics at DBT STAR COLLEGE (Under Strengthening Component) in association with Pantech E Learning. The event is scheduled for 9<sup>th</sup> February, 2026, from 9:00 am to 4:00 pm at the Electronics Lab. The attendees are B.Sc. IIIE Students. The poster also features logos for St. Francis College for Women, Begumpet, Hyderabad, and the Department of Biotechnology.



## 11. Online Hands-on workshop in “Scientific Data Analysis for Material Characterization using Origin Software”

The Department of Physics organized an experimental workshop on “Scientific Data Analysis for Material Characterization using Origin” under DBT STAR COLLEGE (Strengthening Component) for the UG and PG students of St. Francis College for Women. Around 45 students and 12 faculty members participated in this two-day workshop. The resource person was Dr. Roopam Gaur, DST Inspire faculty, Centre for Nanomaterials, Jawaharlal Nehru University, Delhi.

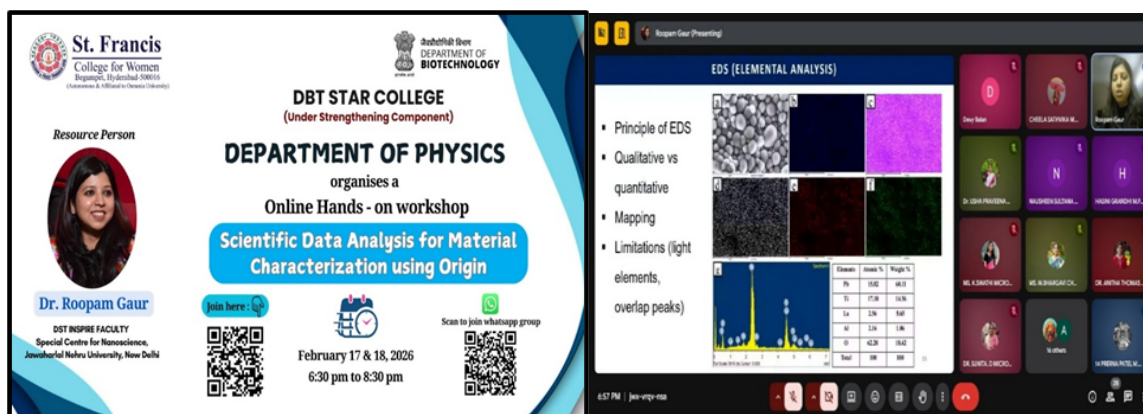
## Objectives

- To introduce students to Materials and Characterization Techniques, fundamentals of XRD and Introduction to SEM Principles.
- To provide hands-on experience in Data Handling in using ORIGIN software and Image J Software.
- To enhance understanding of Data Analysis & Interpretation and Applications in Research and Industry.

## Outcomes

- Students gained practical knowledge of Materials & Characterization Techniques, XRD and SEM Principles.
- Improved understanding of Data Handling and Analysis using Origin and Imaging and Resolution Capabilities of Image J Software.

The demonstrative explanation strengthened basic knowledge and provided clarity in the applications in Research and Industry.



## 12. Experimental Techniques on Magnetic Material Analysis

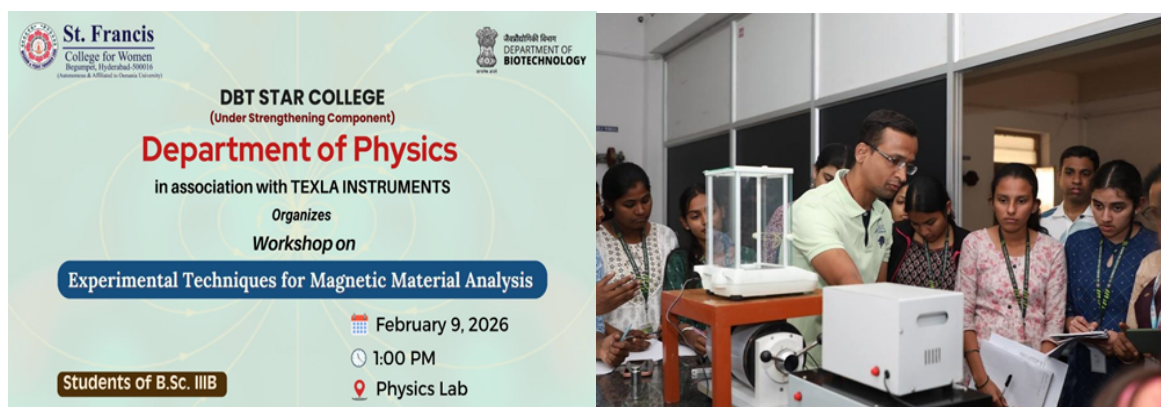
The Department of Physics organized a Hands-on training session on the topic “Experimental Techniques on Magnetic Material Analysis” under DBT STAR COLLEGE (Strengthening Component) for the Physics students of III year (MPC and MPCs). Around 47 students and 2 faculty members participated. The resource person for the event was Mr. Vijaya Krishna from Texla Instruments, Hyderabad.

## Objectives

- To introduce students to the fundamental concepts of Magnetic materials.
- To provide practical knowledge of Material Analysis through hands-on exposure.
- To create awareness about Magnetic properties and their applications.

## Outcomes

- Participants developed a foundational understanding of magnetic materials and its practical relevance.
- Improved awareness of magnetic materials and their role in sensor performance and safety was achieved.
- The hands-on exposure enhanced the ability to identify and differentiate different materials.



## 13. Experimental workshop on Solar-Powered Portable Energy Systems

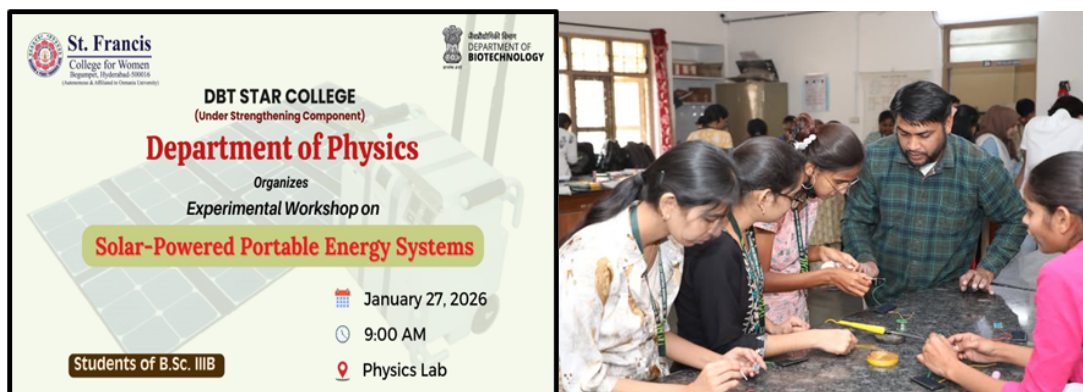
The Department of Physics organized an experimental workshop on “Solar-Powered Portable Energy Systems” under DBT STAR COLLEGE (Strengthening Component) for the Physics students of III year (MPC and MPCs). Around 45 students and 2 faculty members participated.

## Objectives

- To introduce students to the basic principles of solar energy conversion and portable energy storage systems.
- To provide hands-on experience in assembling and testing a functional solar-powered power bank.
- To enhance understanding of the components and circuit design involved in renewable energy devices.

## Outcomes

- Students gained practical knowledge of solar power bank design and the working of its individual components.
- Improved understanding of renewable energy applications and portable energy solutions was achieved among the participants.
- The experimental approach strengthened technical skills and confidence in building and demonstrating simple electronic energy devices.



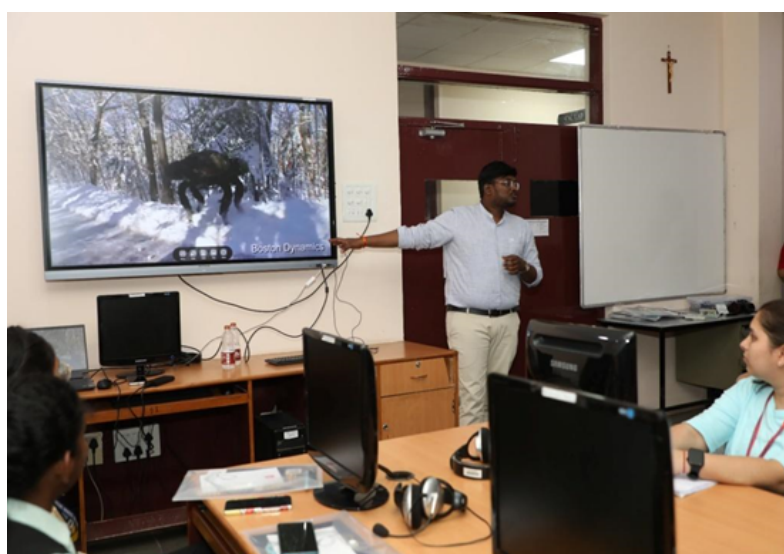
#### 14. Building Smart IoT solutions workshop

A two-day workshop on Building smart IOT solutions on 25<sup>th</sup> to 28<sup>th</sup> November 2025. The Workshop was organized for BSC final year (B, D, E, H) selected students and MSc Data Science of second year students in CS lab 7, Computer science department, St. Francis college for women.



#### 15. Inter College Robotics Workshop

A Two-Day Inter-College Robotics Workshop on 6<sup>th</sup> and 7<sup>th</sup> March 2026, bringing together selected students from various colleges across the twin cities for an immersive hands-on learning experience in robotics.



## 16. Workshop on NMR Spectroscopy: A Key to Unlocking Molecular Structure

The Department of Chemistry organised a workshop solely address on the topic “NMR Spectroscopy: A Key to Unlocking Molecular Structure ” was delivered by Dr. Sarbani Pal, Associate Professor, HOD chemistry, MNR PG College, Hyderabad. She has given a vivid description on NMR Spectroscopy and elucidation of Structure by using NMR spectroscopy. The workshop gave students meaningful insights on NMR spectroscopy and the quantum chemistry behind it. The resource person used real life examples and related them to the topic which was an enriching and memorable experience to the students. Ma’am highlighted the methods used to determine the structure of molecules and how NMR spectroscopy plays a key role in it. She provided a detailed outlook on topics like magnetic moment, resonance in NMR, systematic analysis.

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**Dr. Sarbani Pal**  
Associate Professor,  
HOD - Chemistry,  
MNR PG College

**DBT STAR COLLEGE**  
(Under Strengthening Component)  
**Department of Chemistry**  
Organizes a  
**Workshop on**  
**NMR Spectroscopy : A Key to unlocking  
molecular Structure**

**July 30, 2025**  
9:30 am to 11:30 am  
Capitanio Hall

*For B.Sc. IIIA, B, C, F, N & PG Chemistry Students*

## 17. Hands-on Training on “Computational Thinking with Mathematica

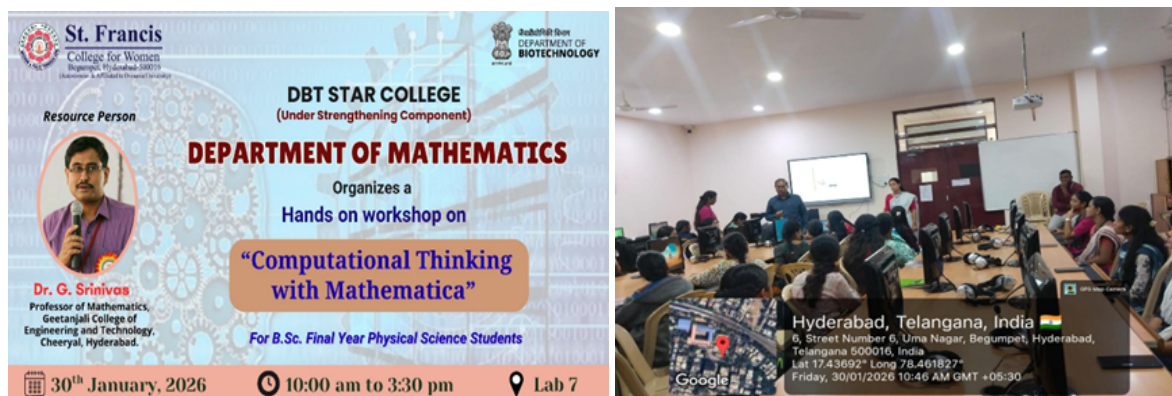
The Department of Mathematics organized a Workshop (Hands on Training) under STAR DBT titled “Computational Thinking with Mathematica” for B.Sc Physical Science final year students on 30th January, 2026. in Lab 7 from 10:30 A.M to 03:30 PM. The resource person for the session was Prof. G.Srinivas, Department of Mathematics, Geetanjali College of Engineering Science & Technology, Keesara.

### Objective

- The workshop was designed for the students to solve mathematical problems numerically, involving equations, systems of equations, matrices, and eigenvalue problems using Mathematica.

## Outcomes

- Develop a clear understanding of core computational thinking concepts such as decomposition, abstraction, pattern recognition, and algorithmic thinking.
- Translate mathematical and real-world problems into computational models using the Wolfram Language.



## 18. WORKSHOP titled “APPLIED BUSINESS ANALYTICS WITH POWER BI: FROM DATA TO DASHBOARD”

The Department of Statistics organized a workshop on “APPLIED BUSINESS ANALYTICS WITH POWER BI: FROM DATA TO DASHBOARD” under DBT STAR COLLEGE (Strengthening Component) for the BSc. III (D & H) students. Around 95 students and 3 faculty members participated.

## Objectives

- To help students understand the importance of data interpretation for informed decision making.
- To provide hands-on training in creating interactive dashboards and reports.
- To enhance students’ skills in data visualization techniques using Power BI.

## Outcomes

- The students were imparted with the basics of Power BI with the help of a case study and also were given hands-on training of developing a Dashboard.
- Students gained deeper insights into data visualization and business intelligence
- Hands-on sessions enabled practical understanding and application of Power BI tools.

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**DBT STAR COLLEGE**  
(Under Strengthening Component)  
**Department of Statistics**  
Organizes  
Two Days Workshop on  
**APPLIED BUSINESS ANALYTICS WITH  
POWER BI : FROM DATA TO DASHBOARD**

Resource Person  
**Mr. Subash Tej**  
Assistant Professor,  
Siva Sivani Institute of Management

15<sup>th</sup> & 16<sup>th</sup> December, 2025  
9:30 am - 3:30 pm  
Gerosa Hall

Audience : For B.Sc. III ( D & H) students

Hyderabad, Telangana, India  
Street View, Begumpet, Hyderabad, Telangana 500016, India  
Lat: 17.4217105, Long: 78.4015431  
Monday, 15/12/2025 09:48 AM GMT+05:30  
Map © OpenStreetMap contributors, Imagery © Mapbox

## 19. Workshop: “Data Analytics using Python”

The Department of Statistics organized a Hands-on session titled “Data Analytics using Python”, under DBT STAR COLLEGE (Strengthening Component) for the BSc. IIID students. Around 60 students and 3 faculty members participated

### Objectives

- To provide practical experience in performing data analysis using Python and help them to develop hands-on skills in Data Analytics techniques such as data cleaning, visualization, and interpretation
- To enable students to apply theoretical knowledge to real-world datasets and to build confidence in using programming tools for solving data-related problems.

### Outcomes

- Students understood how to perform descriptive statistics on real datasets and developed skills to create data visualizations (bar charts, histograms, line plots, scatter plots) for better insight.
- Students learned how to import, clean, and organize datasets for analysis and gained experience in creating visual representations such as charts and graphs for better understanding of data
- Students gained an understanding of real-world applications of data analytics in industries like finance, healthcare, marketing, and technology.

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**DBT STAR COLLEGE**  
(Under Strengthening Component)  
**Department of Statistics**  
Organizes a  
Hands-on session on  
**Data Analytics using Python**

Resource Person  
**Dr. K.S. Harish**  
Professor,  
Siva Sivani Institute of Management

6<sup>th</sup> March, 2026  
9:30 am to 3:30 pm  
Lab 10

For B.Sc IIID students

Hyderabad, Telangana, India  
Street View, Begumpet, Hyderabad, Telangana 500016, India  
Lat: 17.4216939, Long: 78.4015431  
Friday, 06/03/2026 10:16 AM GMT+05:30  
Map © OpenStreetMap contributors, Imagery © Mapbox

## Field visit to BITS-Pilani, Hyderabad (27.07.2025)

The Department of Chemistry organized a field trip to BITS Pilani, Hyderabad. This session provided an overview of the institution's legacy, academic programs, research initiatives, collaborations and 2 alumni students at St. Francis College for Women who were currently pursuing their PhD in BITS shared their experiences. Students were encouraged to pursue higher education and research opportunities in the field of science. Following the orientation, students proceeded to visit a few general laboratories within the campus. These included undergraduate teaching chemistry labs where students got a close look at the practical infrastructure and instrumentation used for basic experiments in chemistry and related sciences, clean rooms which are well equipped with all the facilities.

They had the opportunity to interact with research scholars and gain valuable insights into the life of a research student. Students' academic outlooks were lifted, and many were motivated to contemplate study and advanced degrees in chemistry because of the enriching experience with the field trip.



## Field Visit to Institute of Genetics and Hospital for Genetic Diseases

The Department of Zoology had organized a Field Visit on **6<sup>th</sup> February 2026**. The event was organized for B.Sc IIA & IIN to **Institute of Genetics and Hospital for Genetic Diseases** located at Ameerpet, Begumpet, Hyderabad. Around **60 students** along with Dr. Jyothi Rani and Dr. A. Padmini visited the Institute.



**Objectives:**

To gain a deeper understanding of Genetic Disorders their causes and treatment and to explore the latest advancements in genetic research and their implication for public health.

**Outcome:**

Students gain deeper appreciation for the complexities of genetic disorder and the importance of genetic counselling.

**FIELD TRIP TO IIMR- NUTRIHUB, RAJENDRANAGAR**

The Department of Nutrition organized an educational visit to IIMR- Nutrihub, Rajendra Nagar, Hyderabad Campus under DBT STAR COLLEGE (Strengthening Component) on February 2, 2026 for the students of B.Sc III Year. The event was attended by 2 faculty members & 51 students. The visit aimed to familiarize students with cutting-edge technologies, advanced instruments, and modern research techniques, enhance students' awareness of emerging research opportunities and current trends in scientific innovation in millets and encourage student entrepreneurship.

**Objectives**

- To motivate students to pursue higher education and research careers in science.
- To familiarize students with cutting-edge technologies, advanced instruments, and modern research techniques.
- To enhance students' awareness of emerging research opportunities and current trends in scientific innovation in millets.
- Encourage student entrepreneurship

**Outcomes**

- Students gained a deeper understanding of advanced research infrastructure, laboratory facilities, and modern instrumentation used in research institutions.
- The field trip motivated students to understand research better with real-world requirements.
- The students gained more knowledge on the various millet products developed by entrepreneurs in the incubation.
- Interactions with faculty members, provided valuable insights and encouraged students to develop entrepreneurship with the facilities provided.

**FIELD TRIP TO ICRISAT**

The Department of Statistics organized a Field trip to ICRISAT, Patancheru, Hyderabad under DBT STAR COLLEGE (Strengthening Component) for the BSc.III D students. Around 55 students and 2 faculty members participated.

### Objectives:

1. To provide students with a great learning experience on the application of statistical techniques in various crop research studies.
2. To equip students with the career opportunities and the latest technologies used in the crop research studies.

### Outcomes:

1. The students had a great understanding of real life demonstration of the statistical concepts used in research studies and were very thankful for providing them with this opportunity.
2. The students were also given a deep insight into the career opportunities they can avail as an intern at the esteemed institute.



### INDUSTRIAL VISIT TO NUCLEAR FUEL COMPLEX (NFC), HYDERABAD.

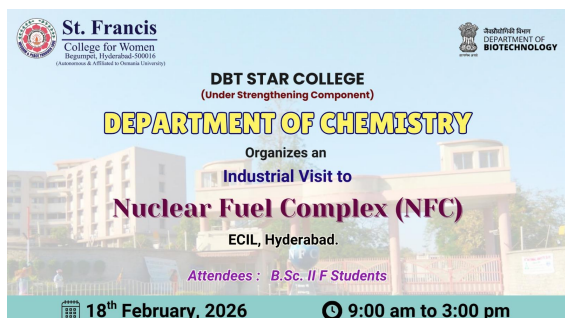
The Department of Chemistry under the DBT Star College (Strengthening Component) organized a field visit to “Nuclear Fuel Complex (NFC), Hyderabad, on 18 th February 2026. The visit was planned for the B.Sc. 2F BTBCC and BCCAC students. About 50 students and two faculty members attended. The visit provided valuable insights into nuclear fuel fabrication, advanced manufacturing processes, and the safety measures followed in the nuclear industry. It was an informative experience that helped students connect their academic learning with real-world industrial applications.

### Objectives

- To understand the role of the Nuclear Fuel Complex (NFC) in the nuclear fuel cycle and its contribution to India’s energy sector.
- To observe the processes involved in the fabrication of nuclear fuel, including material handling, quality control, and safety protocols.

## Outcomes

- Acquired basic knowledge of nuclear fuel fabrication, zirconium alloy processing, and component manufacturing.
- Understood the importance of radiation safety, quality assurance, and regulatory standards in nuclear industries.



## Seminar organized

The Departments of Botany & Zoology jointly organized a one-day seminar commemorating World Wildlife Day on the theme “Conserving Health: Heritage and Habitat for Sustenance of Plants and Animals”. Around 200 students and 6 faculty participated. The seminar enriched participants’ understanding and awareness of biodiversity conservation and emphasized the importance of protecting flora and fauna.



## International Conference -Integrative Biotechnology for Global Impact (IBGI 2026)

An international conference titled as Integrative Biotechnology for Global Impact (IBGI 2026) was organized on February 17th, 2026 for BSc Biotechnology final year students. The resource persons were Prof. Appa Rao Podile, Former Vice Chancellor, University of Hyderabad, Dr. Rosy Bavaraju, Scientist (Clinical Genomics) Bio serves Pvt. Ltd. and Dr Vivek Narisetty, Chief Innovation Officer, Co-Founder, C-Source Renewables Limited, United Kingdom. The conference was attended by 150 participants. The conference also witnessed more than 30 participants from SFC and other colleges of Hyderabad taking active part in research paper presentations.

**DBT STAR COLLEGE**  
(Under Strengthening Component)

**DEPARTMENT OF BIOTECHNOLOGY**

Organizes an  
International Conference on

**Integrative Biotechnology for Global Impact  
(IBGI 2026)**

**Resource Persons :**

**PROF. APARAJIT PODKE**  
Former Vice Chancellor,  
University of Hyderabad

**DR. ROSY BALARAJU**  
Scientist (Clinical Genomics)  
Bioreson Biotechnologies  
(India) Pvt. Ltd.

**DR. VIVEK NARASSETTY**  
Chief Innovation Officer  
Co-Founder, C-Source Researables Limited  
United Kingdom

17<sup>th</sup> February, 2026  
9:00 am to 4:00 pm  
Capitanio Hall

## Intercollegiate Chem Fest

The Department of Chemistry organized a vibrant Intercollegiate Chem Fest on February 5th, 2026, to celebrate National Periodic Table Day. The event aimed to honour Dmitri Mendeleev's monumental contribution to science while providing a platform for students to engage with chemistry through creative and competitive formats. Approximately 300 + students participated in various events. The program commenced at 9:00 AM in Capitanio Hall. The event was graced by the presence of our esteemed Chief Guest, Dr. K. Suresh Babu, Chief Scientist from the Department of Natural Products & Medicinal Chemistry at CSIR - Indian Institute of Chemical Technology (IICT), Hyderabad. The fest included exciting and enjoyable competitions and games like Sci-fi Tambola, Chemistry Idol and Role Play.

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Department of  
**BIOTECHNOLOGY**  
DBT Sponsored

**Intercollegiate Chem Fest**

*Mendeleev's Legacy*  
Commemorating National Periodic Table Day - 2026

Date : 5<sup>th</sup> February, 2026

**Inaugural**

Time : 9:00 to 9:30 am    Venue : Capitanio Hall

Organised by the  
Department of Chemistry

Coordinated by : **Dr. Saritha Aduri**  
HOD - Chemistry    **Dr. M. Bhargavi**  
Assistant Professor

## Guest Lecture on 'Physics of Audio, Video & Image Forensics'

The Department of Physics & Electronics organized a guest lecture on the topic "Physics of Audio, Video & Image Forensics" under DBT STAR COLLEGE (Strengthening Component) for the Physics and Electronics students of I, II and III year (MPC, MPCs and MECs). Around 50 students and 3 faculty members participated. The resource person for the event was Ms. M. Maheshwari (Assistant Director & Scientist (physics), Central Forensic Science Laboratory, Hyderabad).

## Objectives:

1. To introduce the application of physics and electronics principles in audio, video, and image forensics
2. To provide exposure to the professional role and responsibilities of a physicist working in a forensic science laboratory through real case studies.
3. To enhance understanding of how physical evidence such as ballistic patterns, material wear and tear, and footprints is analyzed using scientific methods.

## Outcomes:

1. Students gained practical insight into the role of physics in forensic investigations involving audio, video, and image analysis.
2. Awareness was created about interdisciplinary career pathways in forensic science for physics and electronics graduates.

## Guest Lecture on “Host Pathogen Interaction”


### Outcomes:


- The students of Bsc. III C were able to learn about the different Host-Pathogen mechanisms.
- The guest lecture encouraged students to view Host-Pathogen interactions as not just a concept of Microbiology but also view it from a perspective of interdisciplinary research.
- Students gained valuable insights into the harmful and potentially the beneficial outcomes of HPI.
- Improved ability to interpret research on infection and immunity dynamics.

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Resource Person  
  
**Dr. Hameeda Bee**  
 Associate Professor and  
 Chairperson-BiS  
 Department of Microbiology  
 University College of Science  
 Osmania University

**DBT STAR COLLEGE**  
 (Under Strengthening Component)  
**Department of Microbiology**  
 Organizes  
**Guest Lecture on**  
**Host-Pathogen Interaction**

 11<sup>th</sup> September, 2025  
 9:30 am to 10:30 am  
 Gerosa Hall  
**For B.Sc. IIIC Students**


 जैवप्रौद्योगिकी विभाग  
 DEPARTMENT OF  
**BIOTECHNOLOGY**

**Outreach:** The science departments organized a social outreach programme GLEE for school students to introduce scientific temper in them. Around 30 science live experiments and models were designed and demonstrated to the students.

**Exhibitions/seminars /training courses conducted:****9. Self-evaluation**

<b>Department</b>	<b>*Objective (as stated in proposal)</b>	<b>% achieved</b>	<b>Reasons for underachievement / If achieved, state in quantitative metrics</b>
<b>Biochemistry &amp; Nutrition</b>	Project work (Completed) Visit to reputed laboratories(Completed) Guest lecture (Completed) Workshops (Completed) New experiment based on new instrument purchase (Completed) Training Program for faculty of other colleges as a part of faculty enhancement program (Completed) Training Program for College faculty & non-teaching lab staff (Completed) Students attending 2 day National Workshop	100%	Quantitative metrics – 12/12
<b>Botany &amp; Biotechnology</b>	Students research projects (completed) Gel electrophoresis practical (completed) Visit to research institute (completed) Cultivation & processing of medicinal plants (completed) Field visit to research institutes-completed International Conference-Completed Guest lecture-completed Workshops-Completed	83%	Delay in procurement of air sampler unit for the pollen study. Will be completed in the coming academic year.  Could not organize Animal cell culture workshop as the apparatus/ Chemicals could not be procured on time due to delay in disbursement of grant  Quantitative metrics – 10/12
<b>Computer Science</b>	Project Work (Completed) Faculty Improvement Program Skill Enhancement Courses (Course on IoT was initiated) Industrial Training (Yet to be done)	83%	IoT kits are used in training the final IOT requirement and projects will be completed in the coming academic year. Quantitative metrics – 10/12
<b>Chemistry</b>	Project work ( Completed) Visit to reputed laboratories/Institutions (Completed) Guest lectures ( Completed) Workshops (Completed) New experiments (Completed) Purchase of new instruments as per the proposal (Completed) Industrial training (Completed) Summer training (To be completed) Faculty improvement program (completed) School teacher & College teacher training (completed)	100%	Quantitative metrics – 12/12
<b>Mathematics &amp; Statistics</b>	Field visit to research institute-completed Guest lecture (Completed) Training program attended by Faculty (completed) Training program for students (completed)	100%	12/12
<b>Microbiology</b>	Project work (Complete) Visit to reputed laboratories (Completed) Field visit to research institute-completed Guest lectures (completed) Paper Presentation by students (completed)	83%	Faculty training for school and college staff will be conducted in the coming period.  Quantitative metrics – 10/12

<b>Physics &amp; Electronics</b>	Visit to reputed laboratories (Completed) Guest lecture (Completed) Workshops-Students& faculty (Completed) New experiment based on new instruments purchase (Completed) Training program attended by Faculty( completed) Paper Presentation by student and faculty (completed)	83%	Summer training activity will be planned in the next academic year Quantitative metrics – 10/12
<b>Zoology</b>	Guest lecture (Completed) Hands on training (completed) Field Visit (Completed) One day Seminar (Completed)	85%	Quantitative metrics – 10/12

\* For quantitative analysis you may fix five objective (max) each having 2 marks and accordingly can calculate the matrix.

Not opened  Under process  Opened but not mapped on PFMS  Account is function

**ZBSA Status: (Mark Check Box):**

**Remarks if, any:** \_\_\_\_\_

### 10. Sanctioned Budget details: (Rs. in Lakhs)

Head	Total Released Budget from DBT	Total Expenditure	Balance as on	Remarks if any
Grants for creation of capital assets (Non- recurring)	3795799	3605838	189961	The unutilized balance has arisen primarily due to the procurement of instruments at costs lower than originally budgeted. Furthermore, an amount of approximately ₹70,000 was incurred as a loss during the process of grant reallocation.
Grants-in-aid General (Recurring)	1350000	1349994	6	



Department of Microbiology  
St. Francis College for Women  
Begumpet, Hyderabad-1A

**Dr. Gayatri. V**  
**Course Coordinator**  
**(With Seal)**



Principal  
St. Francis' College for Women  
BEGUMPET

**Pro. T. Uma Joseph**  
**Head of the Institution**  
**(With Seal)**