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

भारत सरकार GOVERNMENT OF INDIA | विज्ञान और प्रौद्योगिकी मंत्रालय MINISTRY OF SCIENCE AND TECHNOLOGY
जैवप्रौद्योगिकी विभाग DEPARTMENT OF BIOTECHNOLOGY
सत्यमेव जयते

Department of Applied Nutrition & Biochemistry

List of Activities 2026-27

S.No	Date	Activity
1.	21/07/2026	Workshop on Baking & Frosting
2.	25/07/2026	Field trip to "Dangoria Charitable trust, Narsapur
3.	25/07/2026 to 08/08/2026	Clinitek-Medical Lab Training
4.	30/07/2026 & 31/07/2026	Workshop on Clinical Genetics, Cytogenetics, Biochemistry, Molecular Biology and Toxicology Techniques in the Diagnosis of Genetic Diseases
5.	30/07/2026 & 31/07/2026	HPLC Workshop at NIPER Hyderabad (AVISHKARAN Foundation)
6.	07/08/2026	Field Trip to Hyderabad Central University
7.	07/08/2026	Guest Lecture on Novel Proteins -Engineering Nutrition For The Next Generation Of Food Systems
8.	11/08/2026	Guest lecture: GLP, GMP and Biosafety
9.	18/08/ 2026	Training on Food Service Management at Sun Pride Institute of Hotel Management
10.	24/08/2026	Workshop on 'Nutrigenomics Unlocked: A Hands-on Workshop on Molecular Biology Techniques
11.	01/09/2026	Training Program on 'Exploring Food Composition: A Practical Guide in Proximate Analysis'
12.	02/09/2026	Guest lecture on 'Nutrition as a Therapy: From Gut to Vein'
13.	17/09/2026	Workshop on 'From Questions to Results: The Journey of Nutrition Research'

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DEPARTMENT OF BIOTECHNOLOGY

DEPARTMENT OF NUTRITION

Workshop on 'Baking and Frosting techniques'

Date:21st July 2026
Time: 01:00 pm to 04:00 pm

Brochure:



The Department of Nutrition had organized a **Workshop on** 'Baking and Frosting techniques' under DBT STAR COLLEGE (Strengthening Component) for the students of B.Sc II year Nutrition. 8 faculty members & 14 students attended the event. The resource person for the same was Ms. Krishnaveni. Ch, Pastry Chef, The Baking Panorama.

Objectives–

- To bridge the gap between theoretical knowledge in bakery science and practical application.
- To provide hands-on experience in fundamental and advanced baking procedures.
- To demonstrate specialised frosting techniques.
- To understand the scientific principles behind ingredient proportions, aeration, and crumb structure in baked goods.

Outcomes of the Event:

- Students gained practical, hands-on experience in baking and frosting techniques.
- Participants acquired a clearer understanding of how chemical reactions, fat-to-flour ratios, and thermal processing affect texture and structure in baking.
- Direct interaction with an experienced pastry chef provided insights into industry-standard practices, commercial baking setups, and entrepreneurship opportunities in the culinary sector.



Ms. Tabitha (Head) felicitating the speaker





Guest Speaker interacting with the participants

Dr. Tabitha Ramona

DBT Coordinator –Dept of Nutrition

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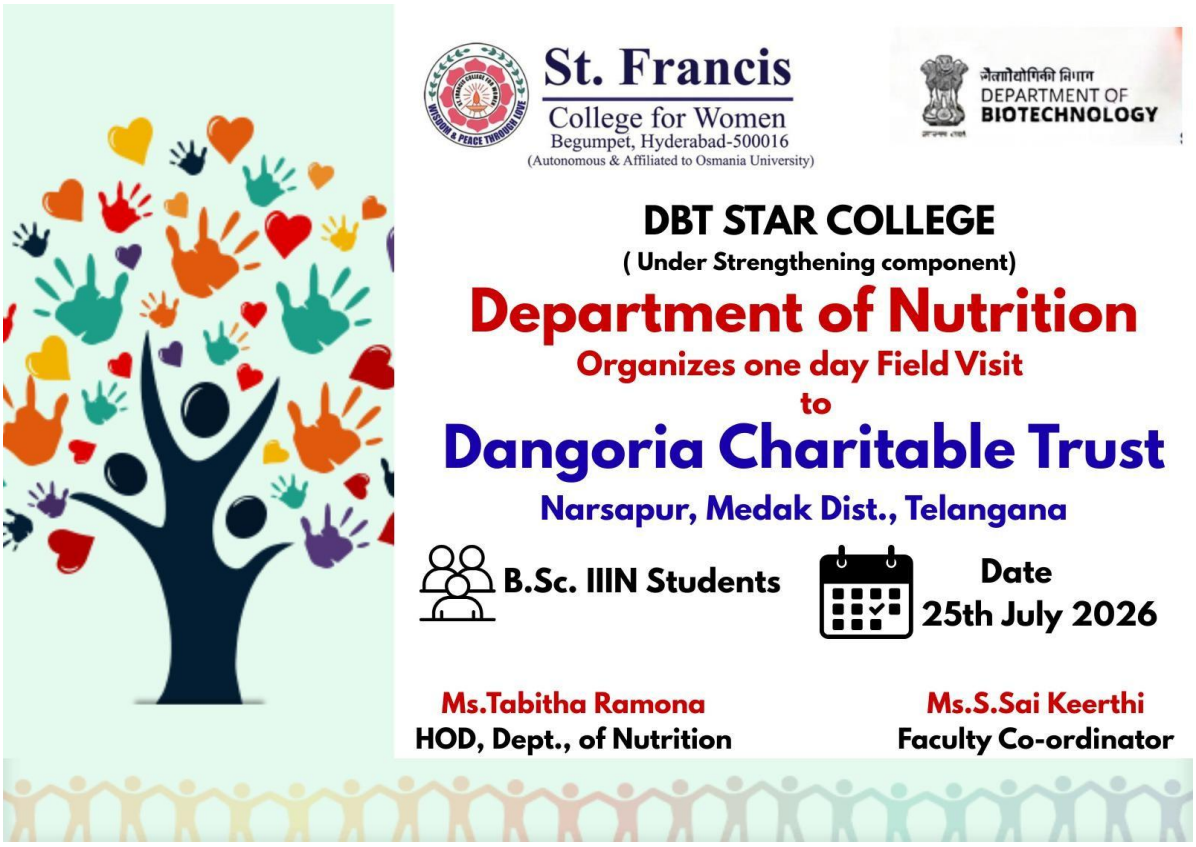
DEPARTMENT OF NUTRITION

Report on Field trip to "Dangoria Charitable trust, Narsapur".

Date: 25th July 2026

Time: 10:30Am to 03:30Pm

Brochure:



The Department of Nutrition organized a one-day field visit to **Dangoria Charitable Trust, Narsapur**, under the **DBT STAR College Scheme (Strengthening Component)** for the **B.Sc. III Year Nutrition students**. The visit was attended by **35 students** and **4 faculty members**, providing an opportunity for experiential learning in community nutrition and rural healthcare. The programme also included enriching guest lectures by **Dr. Mehtab S. Bamji** and **Dr. K. Bhaskarachary**, who shared their expertise on nutrition, public health, and rural development. The visit successfully bridged classroom learning with real-world community health practices.

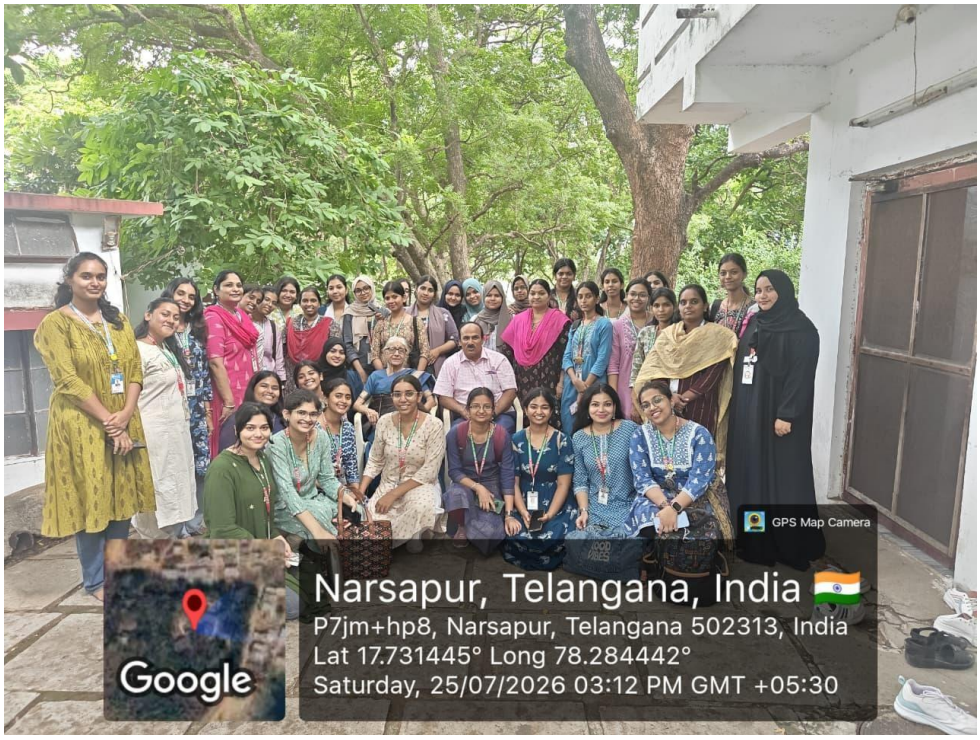
Objectives –

- To understand the functioning of community-based health and social welfare services at Dangoria Charitable Trust.
- To observe the integration of healthcare, nutrition, and community development in a rural setting.
- To study the services provided to elderly residents and hospital patients from a nutrition and public health perspective.
- To develop professional skills through observation, interaction, and experiential learning in a community environment.

Outcomes of the Event:

By the end of the field visit, students gained:

1. Practical exposure to the functioning of a model village, hospital, and old-age home managed by a charitable organization.
2. Enhanced understanding of the role of community-based organizations in delivering healthcare, nutrition, and social welfare services.
3. Real-world insights into the nutritional, healthcare, and psychosocial needs of rural communities and the elderly.
4. Improved professional skills, including observation, communication, teamwork, empathy, and ethical behaviour while interacting with healthcare professionals and community members.



A Group picture with Dr Mehtab S Bamji and Dr Bhaskarachary



Dr.Tabitha Ramona felicitating Dr.Mehtab S Bamji

Dr. Tabitha Ramona
DBT Coordinator –Dept of Nutrition

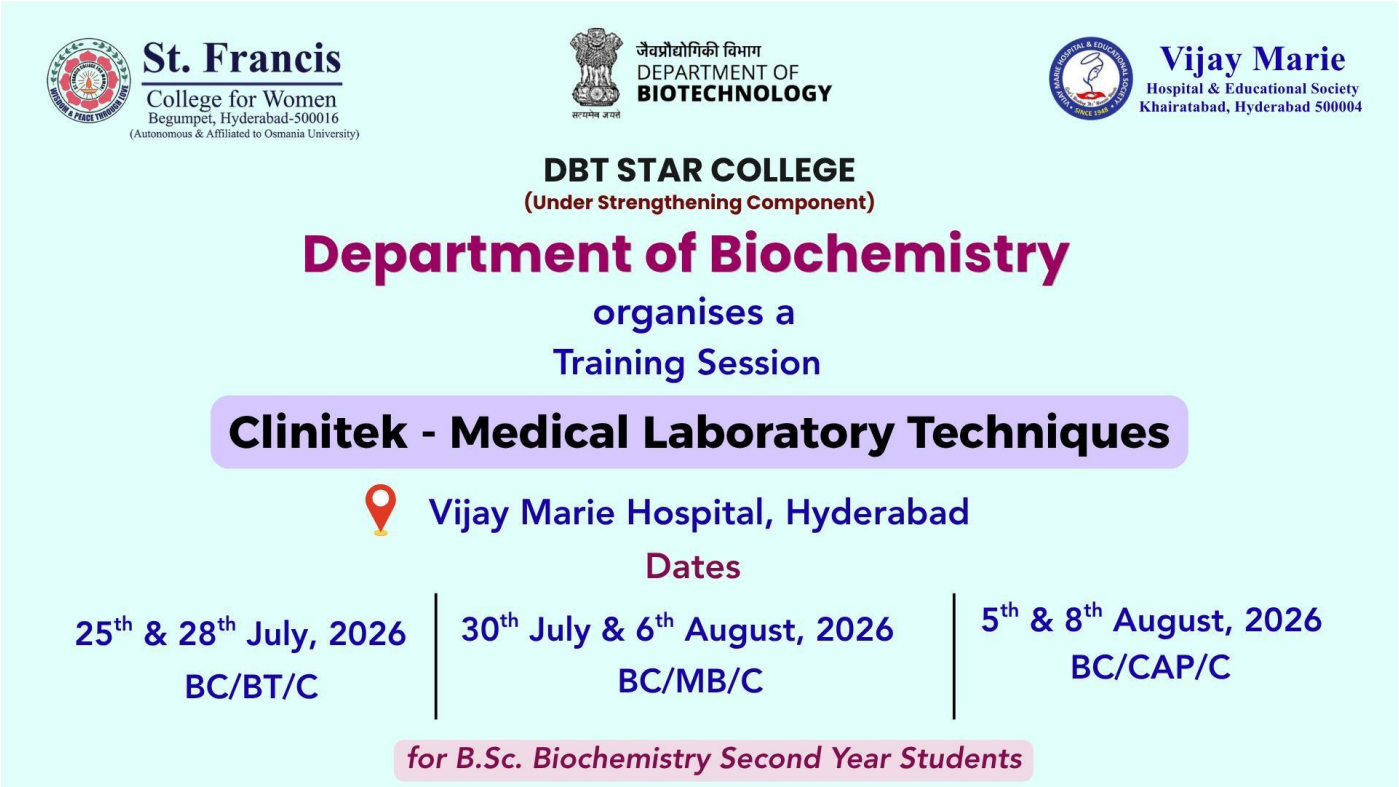
ST. FRANCIS COLLEGE FOR WOMEN, HYDERABAD

ACADEMIC YEAR 2026 – 2027

DEPARTMENT OF BIOCHEMISTRY

Clinitek-Medical Lab Training

Brochure:



The Department of Biochemistry organized a Medical Lab training sessions for the second year Biochemistry students (71).The second year students visited the NABL-accredited Department of Laboratory Medicine at Vijay Marie Hospital, Saifabad, to gain practical exposure to clinical diagnostic laboratory practices. Students explored the Microbiology, Biochemistry, Histopathology, Haematology, and Clinical Pathology sections.

In Microbiology, they observed ELISA, immunochromatography, bacteriology, and automated bacterial identification and antibiotic sensitivity testing using the VITEK system. The Biochemistry laboratory demonstrated VIDAS, ion-selective electrolyte analysis, arterial blood gas analysis, and Mindray automated analysers**,** along with biochemical, hormonal, and tumour-marker investigations.

Students also observed tissue processing and slide preparation in Histopathology and learned about blood and urine analysis, complete blood picture, and blood grouping by the gel card method.

The visit enhanced students' understanding of modern diagnostic technologies and helped them connect theoretical knowledge with clinical laboratory applications.

Objectives

1. To provide students with practical exposure to clinical and diagnostic laboratory procedures in Biochemistry, Microbiology, Haematology, Clinical Pathology, and Histopathology.
2. To familiarize students with automated diagnostic instruments and modern laboratory technologies used in patient investigations.
3. To help students relate theoretical concepts with their practical applications in clinical diagnosis and healthcare.

Outcomes

1. Students gained practical understanding **of** blood, urine, biochemical, microbiological, and histopathological investigations**.**
2. Students became familiar with advanced diagnostic systems such as VITEK, VIDAS, Mindray analyser, and Siemens Clinitek Status**.**
3. The visit enhanced students' understanding of the role of clinical laboratories in disease diagnosis, patient care, and modern healthcare**.**

Pictures:



Students engaged in the workshop









Dr. S. Parijatham Kanchana
DBT Coordinator -Department of Biochemistry

ST. FRANCIS COLLEGE FOR WOMEN, HYDERABAD

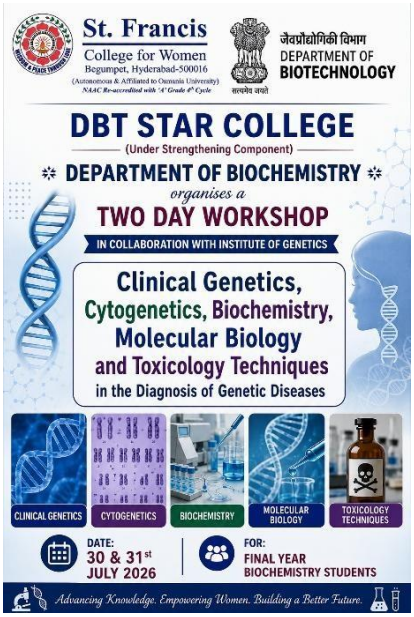
ACADEMIC YEAR 2026 – 2027

DEPARTMENT OF BIOCHEMISTRY

Clinical Genetics, Cytogenetics, Biochemistry, Molecular Biology and Toxicology Techniques in the Diagnosis of Genetic Diseases

Date: 30 & 31st July 2026

Brochure:



The Department of Biochemistry organized a Two-day Hands-on Workshop in the Institute of Genetics on "Clinical Genetics, Cytogenetics, Biochemistry, Molecular Biology and Toxicology Techniques in the Diagnosis of Genetic Diseases" in collaboration with IOG under DBT STAR COLLEGE (Strengthening Component) for the Final year students (IIIC & IIIF) on 30th and 31st July 2026. 34 students and 1 faculty member participated in the workshop.

The first day focused on genetic counselling, karyotyping, and prenatal screening. Students learned the principles and clinical applications of karyotyping for detecting chromosomal abnormalities, along with the role of genetic counselling in assessing hereditary disease risk. Prenatal screening methods, including ultrasound and chromosomal analysis, were also discussed, emphasizing their importance in the early detection and management of genetic disorders.

The second day focused on DNA isolation and laboratory visits. Students observed DNA extraction from blood and visited the Cell Biology, Clinical Biochemistry, New-born Screening, and Environmental Toxicology Laboratories. The Comet Assay was demonstrated to understand DNA damage caused by environmental toxicants, providing practical exposure to clinical and molecular techniques.

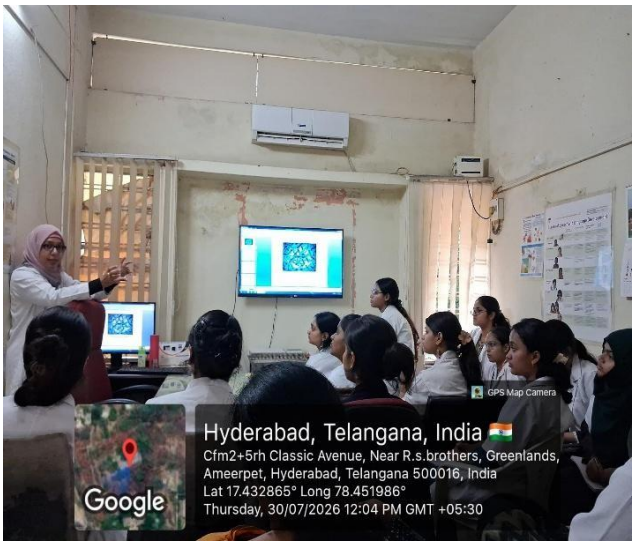
Objectives:

1. To provide hands-on training in clinical genetics, cytogenetics, biochemistry, molecular biology, and toxicology techniques used in the diagnosis of genetic diseases.
2. To bridge the gap between theoretical knowledge and practical laboratory applications in genetic disease diagnosis.
3. To develop students' laboratory skills, analytical abilities, and understanding of modern diagnostic techniques.

Outcomes:

1. The two-day visit provided valuable practical exposure and enhanced our understanding of the interconnection between Biochemistry, Genetics, Molecular Biology, Cell Biology, Clinical Sciences, and Toxicology in modern healthcare and research.
2. Students gained a better understanding of the practical applications of genetic counselling, genetic and prenatal screening, karyotyping, DNA isolation, clinical biochemical analysis, new-born screening, and environmental toxicology**.**
3. Observing laboratory techniques and procedures first-hand helped students connect theoretical concepts with real-world applications**,** improving their understanding, analytical skills, and confidence in laboratory-based learning.

Pictures:





Students engaged in the workshop







Dr. S. Parijatham Kanchana
DBT Coordinator -Department of Biochemistry

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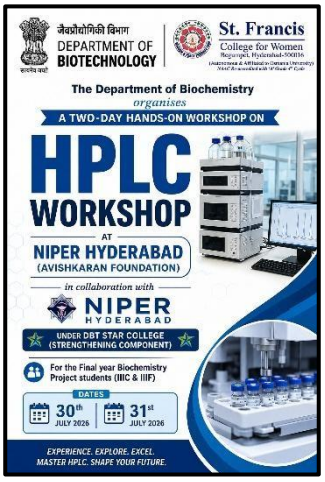
ACADEMIC YEAR 2026 – 2027

DEPARTMENT OF BIOCHEMISTRY

HPLC Workshop at NIPER Hyderabad (AVISHKARAN Foundation)

Date: 30 & 31st July 2026

Brochure:



The Department of Biochemistry organized a Two-day Hands-on Workshop on "**HPLC Workshop at NIPER Hyderabad (AVISHKARAN Foundation)** in collaboration with NIPER under DBT STAR COLLEGE (Strengthening Component) for the Final year Biochemistry Project students (IIIC & IIIF) on 30th and 31st July 2026. 21 students and 1 faculty member participated in the workshop.

Day 1 the Students were introduced to HPLC method development, analytical instruments, and pharmaceutical applications. A live HPLC demonstration covered method creation, sequence setup, batch analysis, chromatogram interpretation, and report generation. The visit also included the NIPER Hyderabad research laboratories and campus facilities**.**

The second day focused on hands-on HPLC training, including sample and mobile-phase preparation, instrument start up, equilibration, calibration, and operation. An interactive session highlighted innovation, entrepreneurship, and career opportunities in pharmaceutical and analytical industries. The programme concluded with feedback and certificate distribution**.**

Objectives

1. To familiarize students with HPLC principles, method development, and pharmaceutical applications**.**
2. To provide hands-on exposure to HPLC operation, sample preparation, calibration, and data analysis**.**
3. To introduce students to pharmaceutical research, innovation, and career opportunities.

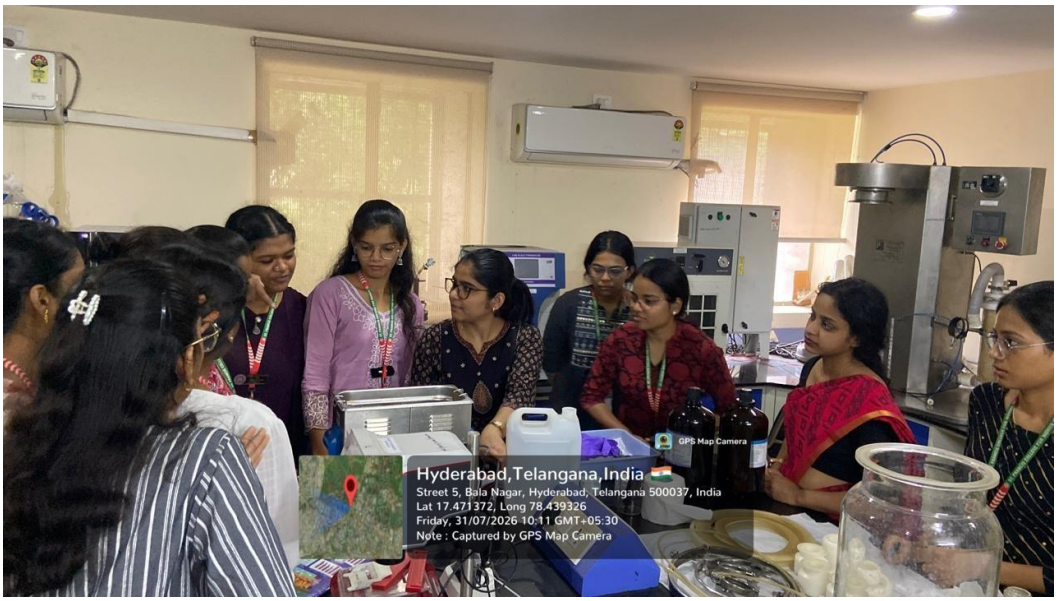
Outcomes

1. Students gained practical skills in HPLC operation, method development, and chromatogram interpretation**.**
2. Students understood sample preparation, system equilibration, calibration, data processing, and report generation**.**
3. Students gained awareness of advanced pharmaceutical research and career opportunities through interaction with industry and research professionals.

Pictures:



Students at NIPER, Hyderabad





Students Receiving Certificates

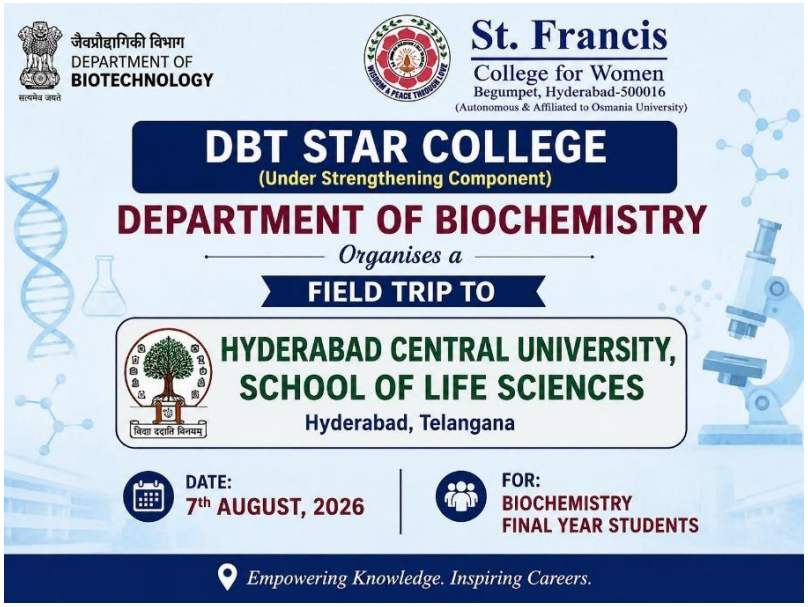
Dr. S. Parijatham Kanchana
DBT Coordinator -Department of Biochemistry

ST. FRANCIS COLLEGE FOR WOMEN, HYDERABAD
ACADEMIC YEAR 2026 - 2027
DEPARTMENT OF BIOCHEMISTRY

Report: Field Trip to Hyderabad Central University

Date: 7th August 2026

Brochure:



A field trip to Hyderabad Central University, was organized for Final year Biochemistry students on 7th august 2026. The visit to the School of Life Sciences, University of Hyderabad began with an orientation on departmental research and facilities. Students visited the Genomics, Proteomics, Cell Culture, and Centrifugation facilities, gaining exposure to techniques such as qPCR, PCR, mass spectrometry, cell culture, and centrifugation. The group also visited other labs undergoing research in areas including cancer biology, lipid metabolism, mitochondrial biology, parasitology, nanotechnology, neuron metabolism, and lysosome biology, providing valuable insight into contemporary life-science research.

Objectives

1. To provide students with practical exposure to advanced biochemical, molecular, and cellular research techniques.
2. To familiarize students with research facilities such as Genomics, Proteomics, Cell Culture, and Centrifugation.
3. To expose students to current research areas and career opportunities in life sciences.

Outcomes

1. Students gained practical awareness of techniques including qPCR, PCR, mass spectrometry, cell culture, and centrifugation.
2. Students understood the applications of biochemical and molecular techniques in contemporary research.
3. Students gained insight into diverse research areas, enhancing their **scientific** awareness and motivation towards higher studies and research careers.

Pictures :



At the laboratories of the School of Life Sciences, HCU



Students at School of Life Sciences, HCU

Dr. S. Parijatham Kanchana
DBT Coordinator -Department of Biochemistry

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DEPARTMENT OF BIOTECHNOLOGY

DEPARTMENT OF NUTRITION

Guest lecture on "NOVEL PROTEINS"

ENGINEERING NUTRITION FOR THE NEXT GENERATION OF FOOD SYSTEMS

Date:7th August, 2026
Time:9:00 to10:30am

Brochure:



The Department of Nutrition had organized a guest lecture on**'Novel Proteins'** for the B.Sc. III Year and M.Sc.II Year Nutrition students on **7th August 2026**.The resource person for the guest lecture was **Ms. Sangita Thenarangam,** Senior Research Fellow, Ph.D. Scholar, ICMR-National Institute of Nutrition, Hyderabad.

Objectives–

- To introduce students to the concept and scope of novel protein sources in modern nutrition.
- To create awareness about sustainable and alternative protein options such as mycoprotein, single cell protein, leaf protein extracts, and insect protein.
- To familiarize students with the applications of novel proteins in food product development and food security.
- To encourage critical thinking on sustainability and innovation in the field of nutrition and food science.

Outcomes of the Event:

- Students gained a clear understanding of various novel protein sources and their nutritional significance.
- Participants were able to relate theoretical knowledge of proteins to real world applications in the food industry.
- The session enhanced awareness of sustainable food systems and alternative protein utilization.
- Students developed insights into the challenges related to acceptance, safety, and processing of novel proteins.
- The lecture inspired interest in research and innovation in emerging areas of nutrition.



Dr.Tabitha (Head) and Dr. Patricia felicitating the speaker



Guest Speaker interacting with the participants

Dr. Tabitha Ramona

DBT Coordinator –Dept of Nutrition

DEPARTMENT OF BIOCHEMISTRY

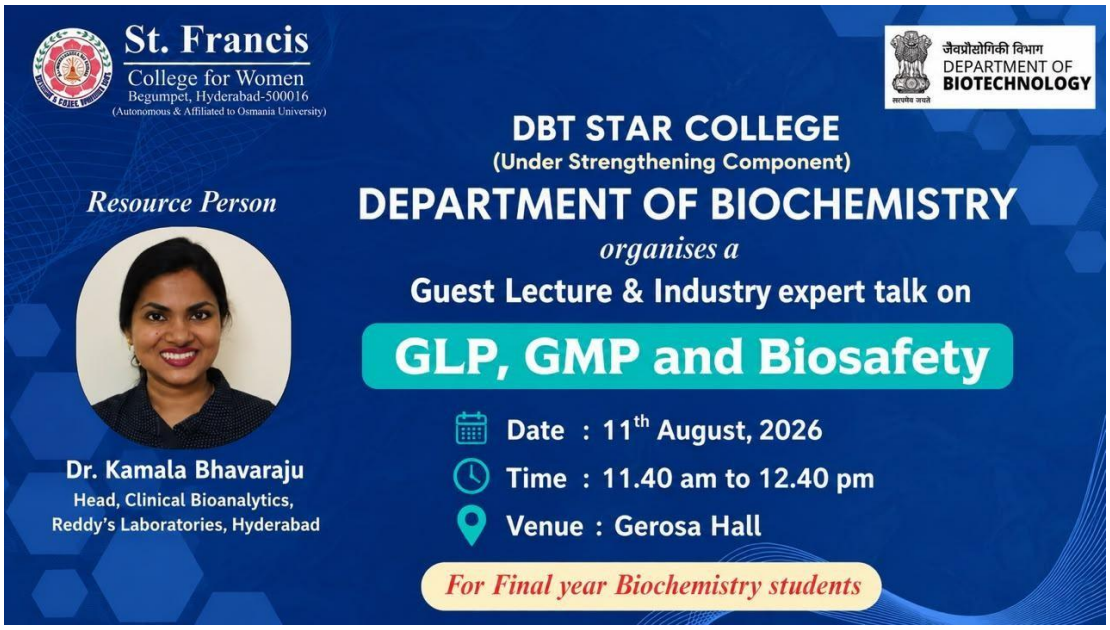
ACADEMIC YEAR 2026 – 2027

Guest lecture: GLP, GMP and Biosafety

Date: 11-08-2026

Time: 11:40 AM to 1:00 PM

Brochure of the Event



The Department of Biochemistry organized a guest lecture on GLP,GMP and Biosafety under DBT STAR COLLEGE (Strengthening Component) for the Final year students (IIIC & IIIF) and second year students. Around 110 students and 4 faculty members participated during the guest lecture. The resource person for the guest lecture was Dr. Kamala Bhavaraju, Head, Clinical Bioanalytics, Reddy's Laboratories, Hyderabad.

Objectives

1. To familiarize students with the principles and applications of GLP, GMP, and Biosafety in pharmaceutical and laboratory settings.
2. To provide insights into quality control, documentation, safety practices, and regulatory compliance**.**
3. To bridge academic knowledge with industrial practices through interaction with an industry expert.

Outcomes

1. Students gained a better understanding of GLP, GMP, and biosafety practices.
2. Students developed awareness of quality assurance, documentation, laboratory safety, and regulatory standards**.**
3. Students gained valuable industry exposure and career insights in clinical bio analytics and the pharmaceutical sector.

Pictures:







Students engaged in the guest lecture

Dr. S. Parijatham Kanchana
DBT Coordinator -Department of Biochemistry

DEPARTMENT OF NUTRITION

REPORT ON Training on FSM at "Sun/Pride Institute of Hotel Management"

Date: 18th August 2026

Time: 9:30Am to 03:30Pm

Class: B.Sc. 3N



The Department of Nutrition organized an educational visit to **Pride Institute of Hotel Management, Ramanagar**, under the **DBT STAR College Scheme (Strengthening Component)** for the B.Sc. III Year Nutrition students. The visit was conducted on **18th August 2026**, with a total of **58 students divided into two batches**, accompanied by **two faculty members**. As part of the visit, the students participated in a **hands-on training session on basic table service and table etiquette**, conducted by **Mr. Nathani Vikram**. The training provided students with practical exposure to professional table setting, service procedures, handling of

service equipment, and appropriate table etiquette. The visit served as a valuable experiential learning opportunity, enabling students to connect their academic knowledge with practical applications in the **Food Production and Service Industry.**

Objectives :

- To understand the functioning of commercial food service establishments.
- To understand the factors involved in menu planning.
- To observe different types of food service, table settings, and serviette folding.
- To understand the importance of table etiquette.

Outcomes of the Event:

By the end of the field visit, students gained:

1. Basic knowledge of **à la carte and table d'hôte**, along with familiarity with commonly used hotel service terms.
2. Practical understanding of **table setting using appropriate cutlery, crockery, and glassware** for different occasions.
3. Understanding of the **key factors influencing menu planning**, including location, clientele, resources, and budget.
4. Exposure to **3-course and 5-course menus**, including the design and presentation of menu cards.



Demonstration of Table setting in a Food service establishment



Fig: Students handling different types of cutleries

Dr. Tabitha Ramona



Head – Dept. of Nutrition

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DEPARTMENT OF NUTRITION & ZOOLOGY

Workshop on 'Nutrigenomics Unlocked: A Hands-on Workshop on Molecular Biology Techniques'

Date: 24th August 2026 Time: 09:00 am to 04:00 pm Venue: Zoology Lab

Brochure:



The Departments of Nutrition and Zoology, St. Francis College for Women, organised a DBT STAR COLLEGE (Under Strengthening Component) workshop titled 'Nutrigenomics Unlocked: A hands-on Workshop on Molecular Biology Techniques' on 24th August 2026 at the Zoology Lab. The workshop was designed for B.Sc. III N (ANZC) students and featured a keynote session by Dr. Jharnavi Puppala, Assistant Professor in Physiology and Assistant Course Coordinator, M.Sc. Courses at ICMR-NIN, Hyderabad, followed by practical molecular biology sessions with the guidance of Dr.

Pavani Sowjanya, Project Senior Scientist and Director Incharge, Genome Foundation, Hyderabad. The programme introduced students to the relationship between nutrition, genes and individual responses to diet, while providing practical exposure to molecular biology techniques.

Objectives–

- To introduce students to the basic concepts of nutrigenomics and personalised nutrition.
- To understand the principles of gene–nutrient interactions and the influence of genetic variation on nutritional responses.

- To provide hands-on exposure to fundamental molecular biology techniques, particularly DNA isolation and agarose gel electrophoresis.
- To develop practical skills in laboratory handling, experimental procedures and interpretation of molecular results relevant to nutrition and biomedical research.

Outcomes of the Event:

- Students gained practical exposure to molecular biology techniques relevant to nutrigenomics, with particular emphasis on DNA isolation and agarose gel electrophoresis.
- The keynote session helped participants understand how genetic variations can influence nutritional responses and why personalised nutrition considers differences between individuals.
- Students observed and participated in laboratory-based learning, strengthening their understanding of molecular approaches used to study gene–nutrient relationships.
- The workshop connected classroom concepts in Nutrition and Zoology with biotechnology and biomedical research, giving students an insight into emerging applications of nutrigenomics.



Dr Jharna, resource person orienting students on basics of nutrigenomics



Dr Tabitha, head, Department of Nutrition introducing the guest speaker



Hands-on session on agarose gel electrophoresis

Dr. Tabitha Ramona

Head – Dept. of Nutrition

DEPARTMENT OF NUTRITION

Training Program on 'Exploring Food Composition: A Practical Guide in Proximate Analysis'

Date : 1st September 2026

Time : 11:15 am to 4:15 pm

BROCHURE



The Department of Nutrition had organized a one day Training Program on 'Exploring Food Composition: A Practical Guide in Proximate Analysis' under DBT STAR COLLEGE (Under Strengthening component) for the students of B.Sc. IIIN project Students and faculty members. The resource person for the same was Dr. Shashi Bhushan Kumar, Technical Officer-B, ICMR-National Institute of Nutrition, Hyderabad.

Objectives–

- To impart practical knowledge and technical competence in executing proximate analysis of various food components.
- To provide step-by-step laboratory orientation on standard protocols used in quantitative food composition analysis.
- To enable students to perform fundamental quantitative calculations for accurate nutritional evaluation. • To demonstrate the procedures practically and enhance students' knowledge and analytical confidence. • To reinforce theoretical principles behind digestion, distillation, and titration through hands-on practical demonstrations.

Outcomes of the Event:

- Students gained practical, hands-on experience in the proximate analysis of food.
- Participants developed a clear understanding of how each process, including digestion, distillation, and titration, is carried out in the laboratory setting.
- Direct interaction with an experienced scientist from ICMR-National Institute of Nutrition provided students with valuable insights into advanced laboratory setups, research protocols, and ongoing opportunities in nutritional sciences.
- Students gained a better understanding of the practical applications of food composition analysis and its direct relevance to broader nutrition research.



Dr. Tabitha Ramona (HOD) felicitating the speaker, Dr. Shashi Bhushan Kumar



Dr. Patricia Micheal (PG COORDINATOR) felicitating the speaker



Guest resource person with the students and faculty

Dr. Tabitha Ramona

Head – Dept. of Nutrition

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DEPARTMENT OF NUTRITION

Report on guest lecture on 'Nutrition as a Therapy: From Gut to Vein'

Date: 2nd September 2026

Time: 09:30Am to 10:30Am

Brochure:



The Department of Nutrition had organized a guest lecture on 'Nutrition as a Therapy: From Gut to Vein' under DBT STAR COLLEGE (under strengthening component). The event was attended by 58 students and 8 faculty members. The Resource person for the same was Ms Haritha Shyam, Chief Dietitian, Apollo Hospitals, Hyderabad.

Objectives –

- To enhance students' understanding of the importance of Nutrition in critically ill patients and its role in recovery and clinical outcomes.
- To develop knowledge of enteral and parenteral nutrition including their indications, advantages and limitations.
- To create awareness regarding the sequential flow of patient care from hospital admission through different phases of treatment with emphasis on the changing nutritional requirement.
- To bridge theoretical knowledge with practical hospital based nutritional management.

Outcomes of the Event:

- Improved understanding of the role of nutrition support in the management and recovery of critically ill patients.
- Increased awareness of proper patient assessment including biochemical parameters and changes in body weight during hospitalization.
- Strengthened student's ability to relate clinical nutrition concepts to practical hospital situations.
- Increased confidence in applying evidence based nutritional approaches while handling patients in clinical settings.



Ms. Patricia Michael felicitating the speaker



Resource Person Delivering the Talk

Dr. Tabitha Ramona

Head –Dept of Nutrition

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DEPARTMENT OF BIOTECHNOLOGY
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DEPARTMENT OF NUTRITION

Report on One Day Workshop on 'From Questions to Results: The Journey of Nutrition Research'

Date: 17th September 2026

Time: 09:30AM to 12:30PM

Brochure:



The Department of Nutrition had organized a One Day Workshop on 'From Questions to Results: The Journey of Nutrition Research' under DBT STAR COLLEGE (under strengthening component). The event was attended by 30 students and 8 faculty members. The resource person for the same was Dr.S.Nasreen, Nutrition Educator, Researcher and Author.

Objectives –

- To understand the importance of systemic data collection, questionnaire standardization, and accurate data entry in nutrition research.
- To develop an understanding of appropriate statistical analysis methods for questionnaire - based studies and food product development research.
- To recognize the importance of selecting statistical tests based on the research objectives, study design, type of data and novelty of the research.
- To identify common errors in data entry and interpretation and understand their impact on the accuracy and reliability of research findings.

Outcomes of the Event:

- Improved understanding of data collection and questionnaire standardization in nutrition research, along with the importance of accurate data entry.
- Enhanced knowledge of statistical analysis methods, application to food product development research.
- Increased awareness of common data entry and interpretation errors.
- Developed better understanding of selecting appropriate statistical tests based on research objectives and type of data.



Dr. Tabitha Ramona & Ms. Patricia Michael felicitating the speaker



Students involved in the session

Dr. Tabitha Ramona
Head –Dept of Nutrition

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DEPARTMENTS OF BOTANY & BIOTECHNOLOGY

2026 - 2027

S. NO	DATE	ACTIVITY
1	18-7-26	Workshop on "Green Archives: A Hands-on Workshop on Medicinal Plant Herbarium Techniques"
2	23rd &24th July,2026	Workshop on Animal Cell culture
3	8-8-2026	Guest lecture on "Medicinal properties of selected wild medicinal plants of Anantagiri hills, Hyderabad"
4	8-8-2026	Filed trip to Anantagiri hills, Hyderabad
5	8-8-2026	Guest Lecture on Intellectual Property Rights (IPR)
6	13-8-2026	Guest Lecture on Tiny Inter-Cellular Messengers: Role of Exosomes in Liver Disease and Regeneration
7	25-8-2026	Field Visit to EPTRI
8	1-9-2026	Workshop on Western Blotting Technique
9	2-9-2026	Training program-The DNA Discovery Lab- Exploring Biotechnology Beyond the classroom
10	15-9-26	Guest Lecture on "AI for a Greener Future: Transforming Plant Sciences"
11	18-9-2026	Field visit to NIRD
12	7th to 19th September 2026	15-day Online Training program on Bioinformatics Tools and Software
13	July 2026 inwards	Students' ongoing research Projects

1. **Workshop on "Green Archives: A Hands-on Workshop on Medicinal Plant Herbarium Techniques"**

   Date: 18.07.2026

   Time: 10:00 am to 12:00 pm

Brochure



The Department of Botany organized a workshop on "**Green Archives: A Hands-on Workshop on Medicinal Plant Herbarium Techniques**" under DBT STAR COLLEGE (Strengthening Component) for the Botany students of II-year BZC and ANBC. Around 20 students and 2 faculty members participated. The resource person for the event was Dr. Allam Vijaya Bhasker Reddy, Associate Professor, Department of Botany, University College of Science, OU, Hyderabad

Objectives

2. To provide hands-on training in the collection, preparation, and preservation of medicinal plant herbarium specimens.
3. To develop skills in the identification, labelling, and scientific documentation of medicinal plants.

- To enhance understanding of the role of herbaria in botanical research, education, and biodiversity conservation.
- To promote awareness of medicinal plant conservation through systematic herbarium techniques.

Outcomes

- Students acquired hands-on experience in preparing scientifically curated herbarium specimens of medicinal plants.

- Students enhanced their observational and taxonomic skills through the identification and documentation of medicinal plant species.
- The workshop enhanced students' awareness of the importance of herbarium collections in botanical research and biodiversity conservation.
- The workshop inspired students to explore medicinal plant diversity and encouraged the adoption of scientific documentation practices in academic and research activities.

Relevant Photographs



Students gaining Hands on experience

Basanti.ch

Dr. Basanti Chintapalli

2. Report on A comprehensive workshop on Animal Cell culture

Date: 23rd and 24th July,2026

Time: 09:00am to 4.30pm

Brochure:



The Departments of Biotechnology and Zoology under **DBT Star College Scheme** organized a two-day workshop on "Culturing cells: A comprehensive workshop on Animal Cell culture" on 23rd & 24th July 2026. The session commenced with a keynote address by Dr. Bokara Kiran Kumar, Scientist E, CSIR-CCMB, Hyderabad providing an insightful introduction to the field of stem cell biology and its significance in modern biomedical research followed by technical sessions for 2 days conducted by Ms. Greeshma Murthati, Project Associate, CCMB. The workshop was attended by 25 students and 7 faculty members from the Departments of Biotechnology and Zoology.

Objectives

To assist students in understanding

- Media preparation for animal cell culture and cell thawing**,** cell maintenance, passaging**,** cell counting and seeding
- The concept of **MTT assay**, for evaluating cell viability and cytotoxicity

Outcomes

The students gained

- Practical understanding of the importance of aseptic techniques, enabling participants to gain practical experience in handling and maintaining animal cell cultures.

- **Comprehensive understanding of MTT assay**, an important technique for evaluating cell viability and cytotoxicity
- Invaluable exposure to data analysis and interpretation, providing students with insights into the application of the assay in biological and biomedical research.

Relevant Photographs









Participants attending the workshop

Students performing thawing of animal cells

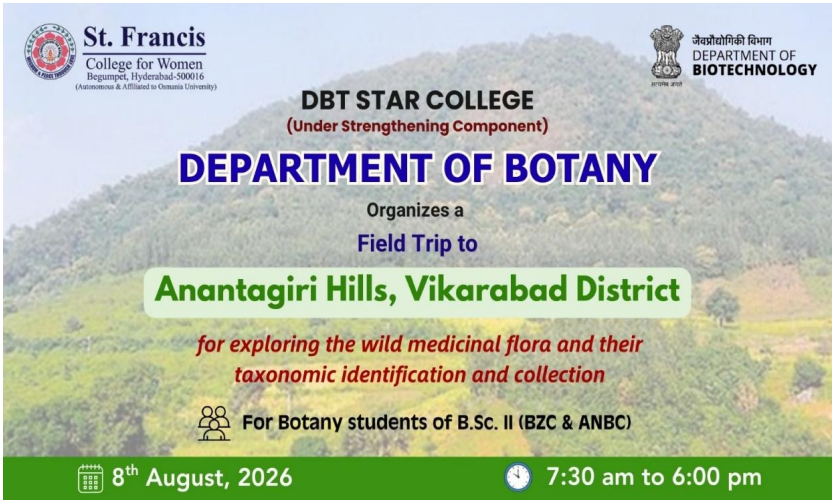
Dr. V. Deepa Switha

3. **Guest lecture on "Medicinal properties of selected wild medicinal plants of Anantagiri hills, Hyderabad" during field visit.**

Date: 08.08.2026

Time: 7:30am to 6:00pm

Brochure:



The Department of Botany organized a guest lecture during the field visit to Anantagiri Hills on the topic **"Medicinal Properties of Selected Wild Medicinal Plants of Anantagiri Hills, Hyderabad."** under DBT STAR COLLEGE (Strengthening Component) for the Botany students of II-year BZC and ANBC. Around 22 students accompanied by two faculty members, participated in the visit. Dr. L. Paramesh, Assistant Professor, Department of Botany University College of Science, OU, Hyderabad assisted the students in the identification and collection of wild medicinal plants.

Objectives

To help students

- Identify the medicinal plants with the morphological characters.
- Gain practical knowledge in plant collection from wild sources.

Outcomes

- Students learnt practical experience in medicinal plant collection.
- Students gained easy understanding on the medicinal uses of the plant species that were identified during the visit.

Relevant Photographs



Wild Medicinal plants observed and documented during the field

Basanti.ch

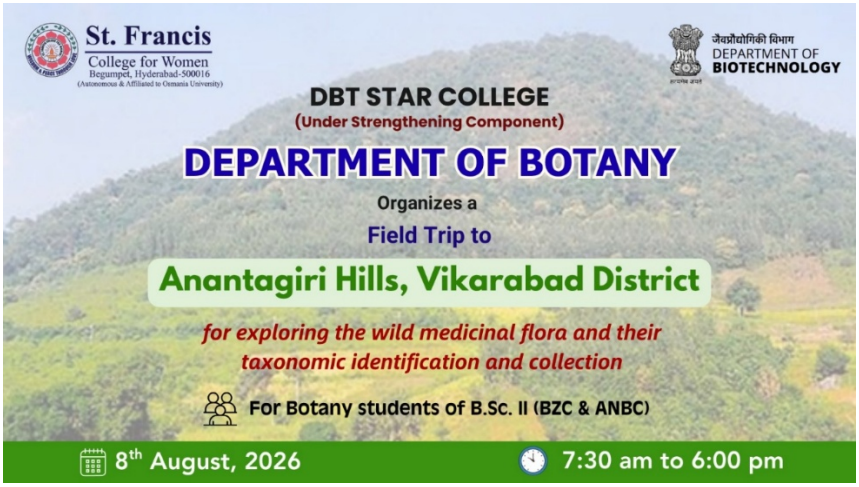
Dr. Basanti Chintapalli

4. **Field Trip to "Anantagiri Hills, Vikarabad District for exploring the wild medicinal flora and their taxonomic identification and collection"**

   Date: 08.08.2026

   Time: 7:30am to 6:00pm

   Brochure:



The Department of Botany organized a Field Trip to "Anantagiri Hills, Vikarabad District for exploring the wild medicinal flora and their taxonomic identification and collection under DBT STAR COLLEGE (Strengthening Component) for the Botany students of II-year BZC and ANBC. Around 22 students accompanied by two faculty members, participated in the visit. Dr. L. Paramesh, Assistant Professor, Department of Botany University College of Science, OU, Hyderabad assisted the students in the identification and collection of wild medicinal plants. The visit provided the students with an opportunity to observe and gain exposure to various medicinal plants and it was an informative, engaging, and enjoyable learning experience for the students.

Objectives

1. To observe and identify medicinal plants in their natural habitats.
2. To gain practical knowledge of plant identification through field observations.
3. To understand the medicinal uses and importance of local plant species.
4. To create awareness among students about plant diversity and conservation.

Outcomes

1. Students were able to connect classroom learning with the plants they observed during the visit.
2. Students gained practical experience in identifying and recording medicinal plants found in their natural habitat.
3. Students enhanced their understanding of plant morphology and the medicinal uses of commonly occurring species.
4. The visit helped students develop field observation skills and appreciate the importance of local medicinal plant resources.

Relevant Photographs



Students participating in the Field visit

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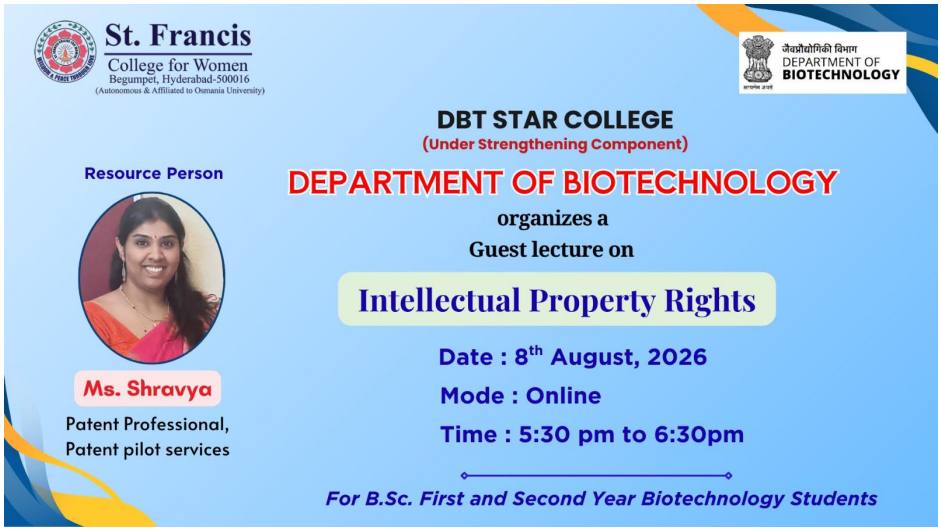
Dr. Basanti Chintapalli

5. Report on Guest Lecture-Intellectual Property Rights (IPR)

Date: 8th, August, 2026

Time: 5:30pm to 6.30pm

Brochure:



Under the **DBT STAR COLLEGE** Scheme (Strengthening Component), the Department of Biotechnology had organized an online guest talk on "Intellectual Property Rights" on 8th August 2026 from 5:30 PM to 6:30 PM for the B.Sc. first- and second-year Biotechnology students on Google meet platform. The talk was delivered by Ms. Shravya, Patent Professional and founder, Patent pilot services. The session was attended by 98 students and 4 faculty members from the Department of Biotechnology.

Objectives:

To assist students in understanding

- the basic concepts and significance of Intellectual Property Rights (IPR) and their relevance to biotechnology, research, and innovation.
- and gaining awareness of different forms of intellectual property, particularly patents, copyrights, and trademarks, and their applications in protecting biotechnological innovations.

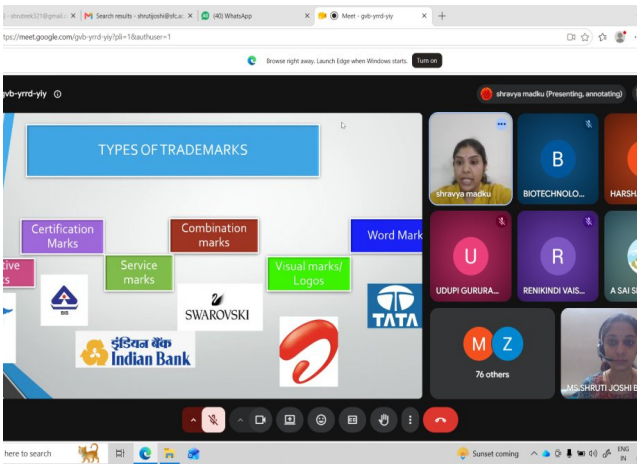
- the importance of patent protection in safeguarding research outcomes, encouraging innovation, and promoting the commercialization of biotechnological products and processes.

Outcomes

The students have

- gained a basic understanding of Intellectual Property Rights and their significance in the field of biotechnology and scientific research.
- become familiar with patents, copyrights, trademarks, and other forms of intellectual property and their role in protecting novel ideas, inventions, products, and processes.
- developed awareness of the importance of protecting and commercializing research outcomes, thereby encouraging innovation and responsible translation of biotechnological discoveries.

Relevant Photographs



Speaker explaining about the different types of trademarks



Students actively participating during the session

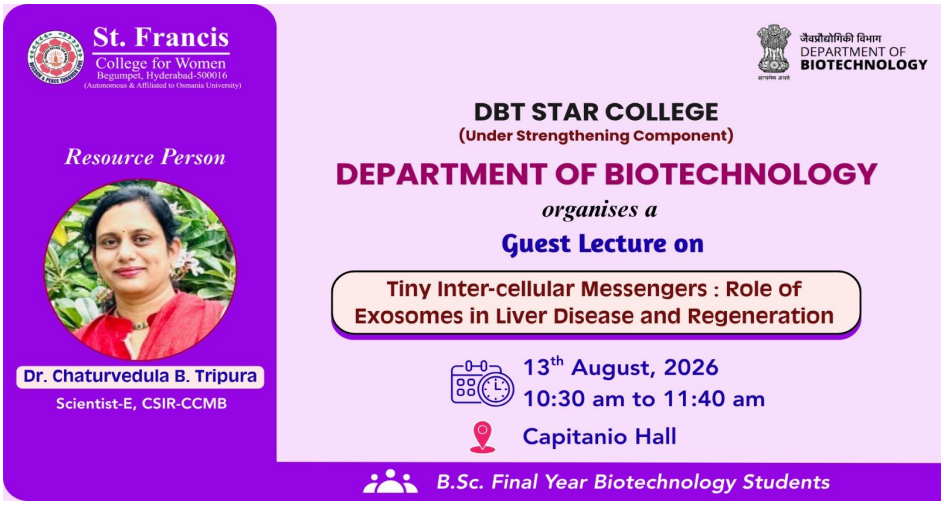
Dr. V. Deepa Switha

6. Report on Guest Lecture-Tiny Inter-Cellular Messengers: Role of Exosomes in Liver Disease and Regeneration

Date: 13th, August, 2026

Time: 10:30am to 11.40am

Brochure:



Under the **DBT STAR COLLEGE** Scheme (Strengthening Component), the Department of Biotechnology had organized a guest lecture on "Tiny Inter-Cellular Messengers: Role of Exosomes in Liver Disease and Regeneration" on 13th August 2026 from 10:30 AM to 11:40 AM for the B.Sc. final year Biotechnology students in Capitanio Hall. The talk was delivered by Dr. Chaturvedula B.Tripura, Scientist-E, CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad. The session was attended by 96 students and 4 faculty members from the Department of Biotechnology.

Objectives

To assist students in understanding

- the structure, cellular organization, and functions of the liver, including the roles of different liver cell types in maintaining normal liver health.

- exosomes and their role in intercellular communication, with particular emphasis on their involvement in liver disease pathogenesis, progression, and regeneration.
- to create awareness about the applications of exosomes in disease diagnosis and regenerative medicine, while encouraging students to explore research and career opportunities in life sciences.

Outcomes

The students have

- Demonstrated an improved understanding of liver anatomy, cellular organization, and its major physiological functions, including the distinction between normal and diseased liver conditions.
- Gained insight into the role of exosomes as mediators of intercellular communication and their significance in liver health, disease progression, and tissue regeneration.
- Recognized the emerging potential of exosomes in diagnostic applications and regenerative medicine and developed an awareness of related research and career opportunities in life sciences.

Relevant Photographs



Resource Person- Dr. Chaturvedula B. Tripura during the session



B. Sc Biotechnology final year students during the session

Dr. V. Deepa Switha

7. Report on Field Visit to EPTRI

Date: 25th August, 2026

Time: 10:00am to 4:00pm

Brochure:



Under the DBT STAR COLLEGE Scheme (Strengthening Component), the Department of Biotechnology organized a field trip to the Environment Protection Training and Research Institute (EPTRI), Gachibowli, Hyderabad, on 25th August 2026 for 48 biotechnology students from B.Sc. III A and F accompanied by the faculty Dr. Deepa Switha.

Objectives:

To assist students

- gain practical exposure to environmental monitoring, laboratory practices, biotechnology, and analytical techniques followed in a professional research and training institute.
- understand the applications of advanced laboratory instruments and techniques, including air-quality monitoring, microbiology, plant tissue culture, and analytical instrumentation.
- develop awareness of plant conservation and environmental sustainability through exposure to medicinal plants and participation in plantation activities.

Outcomes

The students gained

- practical knowledge of professional laboratory practices, including sample collection, sterilisation, calibration, validation, documentation, and adherence to Standard Operating Procedures.
- an understanding of environmental monitoring, plant tissue culture, microbiological techniques, and advanced analytical instruments including UV-Visible Spectrophotometer, ED-XRF, ICP-OES, ICP-MS, and GC-MS used in scientific research and environmental studies.
- an awareness of environmental conservation and the importance of medicinal plants, while connecting their theoretical knowledge with real-world applications in biotechnology and environmental research.

Relevant Photographs



Students and faculty at EPTRI



Students monitoring air quality



Students along with the researchers at plant tissue culture laboratory

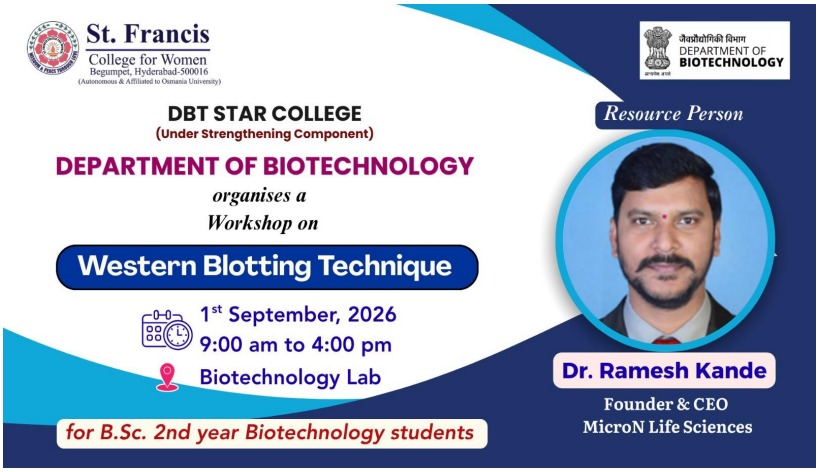
Dr. V. Deepa Switha

8. Report on Workshop on Western Blotting Technique

Date: 1st, September,2026

Time: 09:00am to 4.00pm

Brochure:



Under the **DBT STAR COLLEGE** Scheme (Strengthening Component), the Department of Biotechnology organized a workshop on "Western Blotting Technique" on 1st September 2026 from 9:00 AM to 4:00 PM for BSc. second year Biotechnology students in the Biotechnology lab. The session was delivered by Dr. Ramesh Kande, Founder & CEO, Micron Life Sciences, Hyderabad and was attended by 24 students and 3 faculty members from the Department of Biotechnology.

Objectives

To assist participants

- understand the principle, significance and applications of Western blotting in biological and biomedical research, with emphasis on protein expression analysis.
- and provide hands-on training in the key steps of Western blotting, including protein separation by SDS-PAGE, transfer to a membrane, blocking, antibody incubation, and detection.
- familiarize with proper laboratory practices, troubleshooting methods, and interpretation of Western blot results.

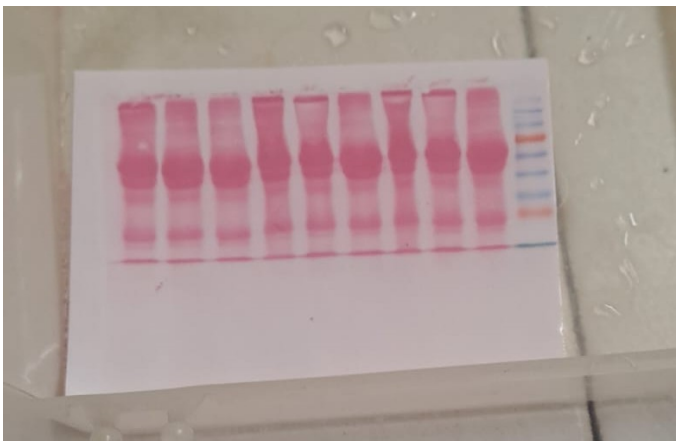
Outcomes

The students gained

- an understanding of the principles, workflow, and applications of Western blotting and its relevance to protein expression studies, disease research, molecular diagnostics and biomedical sciences.
- practical knowledge in performing the major steps involved in Western blotting and handling the required reagents and equipment.
- an understanding to interpret Western blot bands and identify common technical issues that may affect the quality and reliability of results.

Relevant Photographs





Students actively participating during the workshop



Dr. Ramesh Kande demonstrating the procedure for western blotting technique.

Dr. V. Deepa Switha

9. Report on The DNA Discovery Lab- Exploring Biotechnology Beyond the classroom

Date: 2nd, September, 2026

Time: 09:30am to 11.30am

Brochure:



Under the **DBT STAR COLLEGE** Scheme (Strengthening Component), The Department of Biotechnology organized a one-day learning and awareness programme on "The DNA Discovery Lab- Exploring Biotechnology Beyond the classroom" on 2nd September, 2026 from 9:30AM to 11.30AM for Cremon Montessori Life School students. The session was guided by Dr. Deepa Switha and Ms. Mini Fernandez, Faculty members, Dept. of Biotechnology and was attended by 13 students and 2 faculty members from the Cremon Montessori Life School, Hyderabad.

Objectives:

To assist participants in understanding

the basic concepts and applications of biotechnology through hands-on laboratory activities beyond the classroom.

- and providing practical exposure to fundamental biotechnology techniques, including DNA isolation, encapsulation, and microscopic observation of microorganisms.
- basic applications in biotechnology research and to familiarize students with common laboratory instruments and equipment.

Outcomes:

The participants have gained

- an introductory understanding of biotechnology and its practical applications through an interactive laboratory learning experience.
- hands-on knowledge of DNA isolation and encapsulation techniques and understood their relevance to biological and plant biotechnology.
- an understanding to observe microorganisms under a microscope and became familiar with basic biotechnology laboratory instruments, their functions, and applications in scientific experimentation and research.

Relevant photographs



Participants from Cremon Montessori Life school along with Dr.Anitha Thomas, Vice Principal and Biotechnology staff members.



Dr. Deepa Switha demonstrating experiments to the students.

Dr. V. Deepa Switha

10. Guest Lecture on "AI for a Greener Future: Transforming Plant Sciences"

Date: 15.09.2026

Time: 2.10 pm to 3:10 pm in Botany Lab

Brochure



The Department of Botany organized a guest lecture on the topic **"AI for a Greener Future: Transforming Plant Sciences"**. Around 40 students of III- year BZC and ANBC and 2 faculty members participated. The speaker for the event was **Dr. Kaushik Sekaran, Associate Professor, Department of Computer Science & Engineering, Amity University, Hyderabad.**

Objectives

- To make students understand the concept and the applications of Artificial Intelligence (AI) in plant sciences for plant identification, disease detection, and crop monitoring.
- To develop students' understanding towards innovative and sustainable plant research through AI and digital technologies.
- To inculcate the research interest in students to explore AI-based tools and technologies for plant-based fields in agriculture, biodiversity, and environmental sustainability.

Outcomes

- Students gained knowledge on the role and applications of AI in plant sciences.
- Students understood how AI tools can be effectively implicated in plant identification, disease detection, crop monitoring, and data analysis.
- Students also understood how AI can support innovative and sustainable plant science research in framing future academic and research applications.

Relevant Photographs



Felicitation of Resource speaker



Resource speaker interaction with the students



Group photograph with the participants

Basanti.ch

Dr. Basanti

11. Report on Field visit to NIRD

Date: 18th, September,2026

Time: 10:00am to 4.00pm

Brochure:



Under the **DBT STAR COLLEGE** Scheme (Strengthening Component), the Department of Biotechnology organised a field visit to National Institute of Rural Development and Panchayati Raj (NIRDPR), Hyderabad on 18th September 2026 from 10:00 AM to 4:00 PM for BSc IIIC Biotechnology students. The visit provided practical exposure to sustainable technologies, rural development initiatives, skill development and livelihood-oriented activities. It was attended by 27 students and 1 faculty member.

Objectives:

To assist participants

- understand waste utilization, recycling and value addition.
- In understanding the importance of biopesticides, biofertilizers and microbial applications in agriculture
- familiarize with the process involving natural dye technology and fermentation

Outcomes:

The students gained

- an understanding of solar engineering, skill-development programmes and sustainable building technologies using locally available materials
- practical knowledge in food processing, women entrepreneurship.
- an understanding of the applications of academic knowledge with real-world,the role of biotechnology and appropriate technologies in waste management, sustainable agriculture, medicinal plants, renewable energy and food processing

Relevant Photographs





Students actively participating during the field visit





Dr. V. Deepa Switha

12. Report on 15-day Online Training program on Bioinformatics Tools and Software

Date: 7th to 19th September, 2026

Time: 06:00pm to 8:00pm

Brochure:



Under the **DBT STAR COLLEGE** Scheme (Strengthening Component), the Department of Biotechnology in collaboration with Learntoupgrade had organized a 15-day online training program on Bioinformatics Tools and Software from 7th – 19th September, 2026. The resource person for the training program was Dr.Sunil Kumar Gupta, Assistant Professor,NIPER,Raebareli,UP.A total of 18 BSc 2nd yr Biotechnology students actively participated in the workshop.

Objectives

To assist students to:

- understand the fundamentals of bioinformatics and the role of computational approaches, biological databases, and software tools in modern biological research.

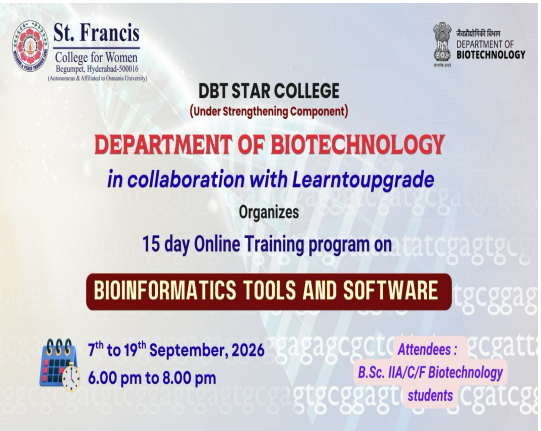
- develop practical skills in biological data retrieval and analysis, including sequence alignment, phylogenetic analysis, genomics, transcriptomics, gene annotation, and protein structure prediction.
- explore the applications of bioinformatics in protein modelling, molecular docking, drug discovery, and other biological and biomedical research areas.

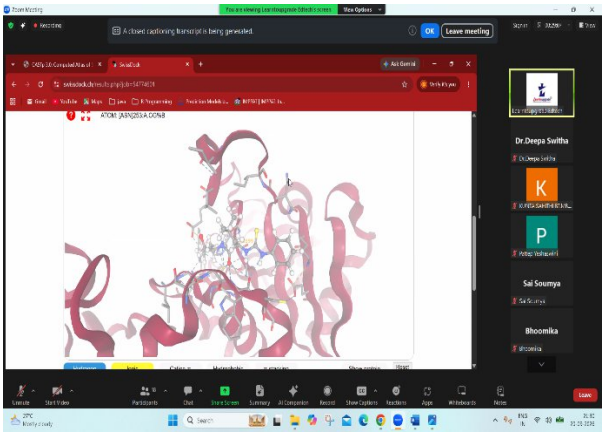
Outcomes

The students:

- gained proficiency in retrieving, analysing, and interpreting biological data using major databases and tools for sequence alignment, phylogenetic analysis, and gene annotation.
- acquired practical exposure to computational approaches in genomics, transcriptomics, protein modelling, structure/function prediction, and molecular docking.
- developed an understanding of the application of bioinformatics in research, particularly in functional genomics, protein analysis, drug discovery, and structure-based drug design.

Relevant Photographs





The resource person Dr. Sunil Kumar Gupta explaining Molecular docking

Dr. V. Deepa Switha

13. DBT SPONSORED ONGOING STUDENTS' PROJECTS FOR THE ACADEMIC YEAR 2026 – 2027

S. No	Name of the Researcher	Roll No	Title of the Project	Research Supervisor
1	ANGELINA GONSALVES	121324055002	Phytochemical screening, antibacterial and antifungal analysis of the methanolic extracts of ***Azadirachta indica***	Dr. S. Revathi
2	BOBBA DIVYASRI	121324055006	Phytochemical screening, antibacterial and antifungal analysis of the methanolic extracts of ***Ocimum sanctum***	Dr. S. Revathi
3	VAISHNAVI SHARMA	121324055029	Phytochemical screening, antibacterial and antifungal analysis of the methanolic extracts of ***Curcuma longa***	Dr. Basanti Ch
4	GANIPAKA RUTH PRASHANTHI	121324041003	Comparative analysis of phytochemical composition and bioactive properties of ***Ocimum tenuiflorum*** cultivated in hydroponic and conventional soil methods	Dr. Basanti Ch
5	KOMERA PRIYANKA	121324041005	Comparative analysis of phytochemical composition and bioactive properties of ***Coriandrum sativum*** cultivated in hydroponic and conventional soil methods	Dr. Basanti Ch
6	N ANN MARIA PRAKASH	121324041010	Comparative analysis of phytochemical composition and bioactive properties of ***Spinacia oleracia*** cultivated in hydroponic and conventional soil methods	Dr. Basanti Ch
7	PUJARI SUNANDA	121324041011	Comparative analysis of phytochemical composition and bioactive properties of ***Latuca sativa*** cultivated in hydroponic and conventional soil methods	Dr. Basanti Ch
8	SAMIA QADRI	121324056028	Integrated analysis of Physiocochemical and Biological parameters in water quality assessment of Umda sagar lake,Hyderabad	Ms. Shruti Joshi

9	ASNA KULSUM	121324050005	Evaluation of Antibacterial and Anti biofilm activity of Probiotic derived cell free supernatants from traditional fermented foods	Dr. Deepa Switha





Dr. Basanti Chintapalli
DBT Coordinator,
Department of Botany,
St. Francis College for Women.
Women

Dr.V.Deepa Switha
DBT Coordinator
Dept of Biotechnology
St Francis College for

St. Francis College for Women
Begumpet, Hyderabad-500016
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जैवप्रौद्योगिकी विभाग DEPARTMENT OF BIOTECHNOLOGY
सत्यमेव जयते

ST. FRANCIS COLLEGE FOR WOMEN, HYDERABAD ACADEMIC YEAR 2026 – 2027

DEPARTMENT OF COMPUTER SCIENCE

List of events under Star DBT

S. No	Name of the Event	Date
1	Advanced Embedded System with IoT	2nd -4th July, 2026
2	Embedded Systems and IoT for Data Analytics	27th & 28th July, 2026.
3	Educational Field Visit to the Indian Institute of Technology – Hyderabad, Kandi, Sangareddy	25th August, 2026
4	Dronetech: From Concept to Flight	24th - 25th August, 2026
5	Two-Day Inter Collegiate Faculty Development Programme: "Intelligent Analytics"	1st - 2nd September, 2026
6	Two-Day Inter Collegiate Faculty Development Programme: "Modern AI Toolkit: From Gen AI to Autonomous Agents"	15th - 16th September, 2026

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(Autonomous & Affiliated to Osmania University)
NAAC Re-accredited with 'A' Grade 4th Cycle

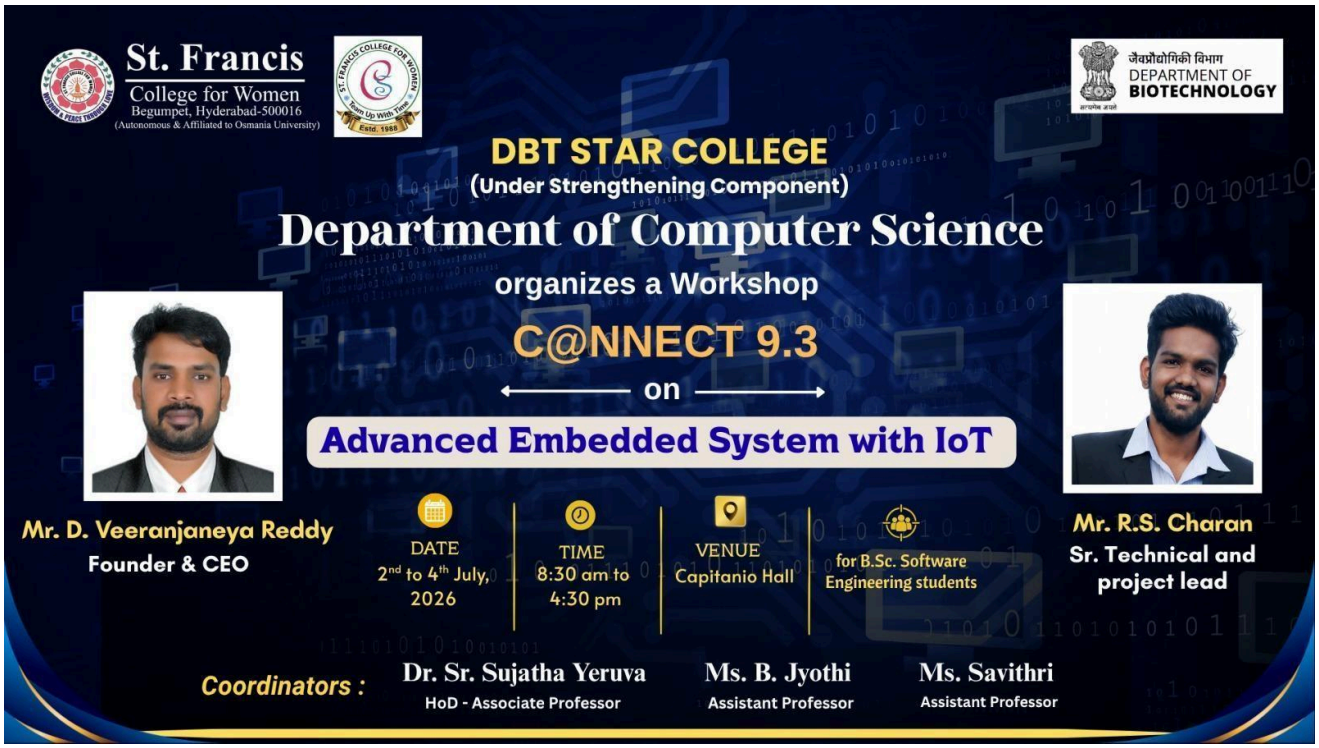
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जैवप्रौद्योगिकी विभाग DEPARTMENT OF BIOTECHNOLOGY
सत्यमेव जयते

ST. FRANCIS COLLEGE FOR WOMEN, HYDERABAD
ACADEMIC YEAR 2026 - 2027
DEPARTMENT OF COMPUTER SCIENCE

Report on Advanced Embedded System with IoT Workshop Conducted on 2nd -4th July, 2026.

Time: 8:30 a.m-4:30 p.m.

Brochure:



The Department of Computer Science, organized A Three-Day Workshop during 2nd – 4th July, 2026, for B.Sc. 3H software Engineering students for an immersive hands-on learning experience in IoT. The resource persons for the workshop are Mr. D. Veeranjaneeya Reddy & Mr. R.S. Charan.

Objective:

- To introduce participants to the fundamentals of embedded systems, microcontrollers, and IoT technologies.
- To provide hands-on experience in interfacing sensors, actuators, LCDs, and ESP32 microcontrollers.
- To develop practical programming skills for embedded systems using the Arduino IDE and ESP32 platform.
- To enable participants to design and implement real-time sensor-based automation and monitoring projects.
- To familiarize participants with IoT concepts, Wi-Fi connectivity, and cloud-based monitoring using the Blynk platform.

Outcome:

- Participants will be able to understand the architecture and working principles of embedded systems and IoT applications.
- Participants will gain the ability to interface and program various digital and analog sensors with the ESP32 microcontroller.
- Participants will be capable of developing basic embedded and IoT-based projects, including automation and environmental monitoring systems.
- Participants will acquire practical knowledge of connecting embedded devices to Wi-Fi and monitoring/control through the Blynk IoT dashboard.
- Participants will enhance their problem-solving, debugging, and project development skills through hands-on activities and mini-project implementations.

Pictures:



Management interacting with the students



Faculty and Students along with the Resource persons

Signature of StarDBT coordinators:

1. Savithri
2. 4/7/2026

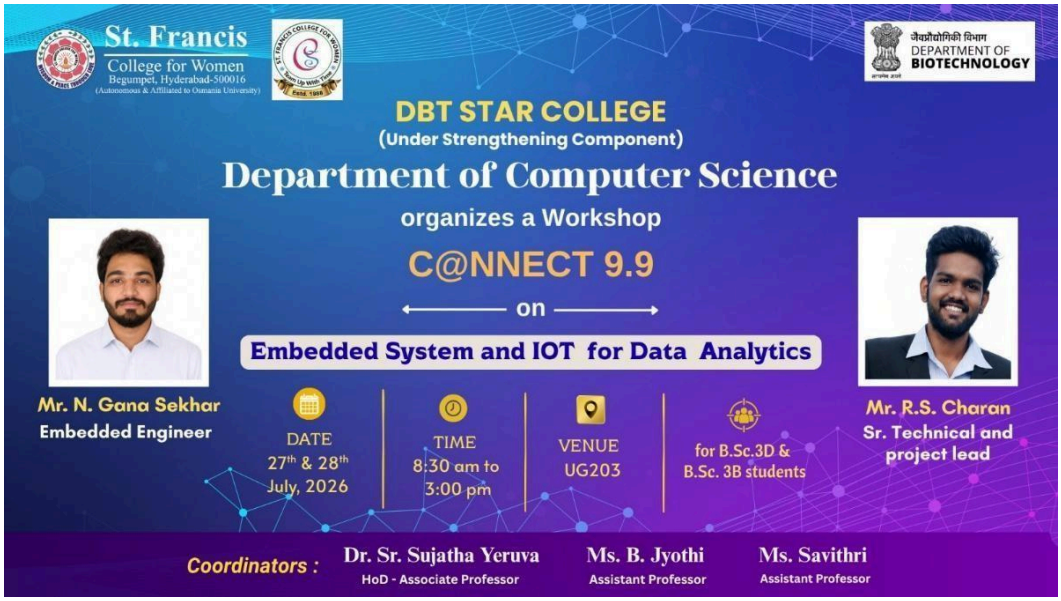
ST. FRANCIS COLLEGE FOR WOMEN,
HYDERABAD ACADEMIC YEAR 2026 - 2027
DEPARTMENT OF COMPUTER SCIENCE

Report on Embedded Systems and IoT for Data Analytics Workshop

Conducted on 27th & 28th July, 2026.

Time: 8:30 a.m-4:30 p.m.

Brochure:



Objectives:

- To introduce students to Embedded Systems and IoT:
  To provide students with a fundamental understanding of embedded systems, microcontrollers, sensors, actuators, and the basic concepts of the Internet of Things.
- To develop practical skills in embedded programming:
  To provide hands-on experience in programming and working with Arduino Uno and ESP32 microcontrollers.
- To develop sensor interfacing and automation skills:
  To enable students to interface different sensors and actuators and develop simple embedded and automation-based applications.

- To introduce IoT-based data collection and monitoring:
  To demonstrate how IoT devices can collect real-time data, communicate through Wi-Fi, and enable remote monitoring and control using platforms such as Blynk.
- To connect IoT with data analytics and real-world applications:
  To help students understand how sensor-generated data can be collected, processed, analysed, and used for monitoring, decision-making, automation, and developing practical solutions.

Outcome:

- Understanding of Embedded Systems and IoT:
  Students gained a clear understanding of the basic concepts, components, and applications of Embedded Systems and the Internet of Things.
- Hands-on experience with microcontrollers:
  Students acquired practical knowledge of Arduino Uno and ESP32 programming and development.
- Sensor interfacing skills:
  Students learned to interface and work with various sensors such as IR, Flame, LDR, Vibration, Soil Moisture, Rain, DHT11, Ultrasonic, and MQ-2 Gas sensors.
- Development of practical applications:
  Students gained experience in developing simple applications such as Fire Alarm, Vibration Alert, LCD Display, and sensor-based monitoring systems.
- IoT connectivity and remote monitoring:
  Students learned to connect ESP32 devices to Wi-Fi and Blynk and monitor sensor data remotely through an IoT dashboard.
- Real-time data collection and analysis:
  Students understood how IoT devices collect real-time sensor data and how the collected data can be processed and analysed for meaningful information.
- Improved technical and problem-solving skills:
  The hands-on activities enhanced students' programming, hardware interfacing, troubleshooting, problem-solving, and practical implementation skills.
- Awareness of real-world and industry applications:
  Students developed an understanding of how Embedded Systems, IoT, automation, and data analytics can be integrated to develop practical solutions for real-world applications.

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Pictures:



Students working with IoT devices



Resource person delivering the Lecture

Day-1 Session



Valedictory Session



Certificates Distribution

Day-2 Session

Signature of StarDBT coordinators:

1. Savithri
2. Jyothi 28/07/2026

ST. FRANCIS COLLEGE FOR WOMEN, HYDERABAD

ACADEMIC YEAR 2026 - 2027

DEPARTMENT OF COMPUTER SCIENCE

Report on "Educational Field Visit to the Indian Institute of Technology – Hyderabad, Kandi, Sangareddy"

On 25th August, 2026

Brochure:



The Department of Computer Science, St. Francis College for Women, organized an academic visit to the Indian Institute of Technology Hyderabad (IIT Hyderabad) on 25th August, 2026 . Approximately 100 students from the department, accompanied by two faculty coordinators Ms. Savithri and Ms. Preethi participated in the visit. The visit provided students with an opportunity to experience an academic and research-oriented environment and gain exposure to areas beyond the regular classroom curriculum. Throughout the visit, we attended informative sessions and learned about Japanese culture and education, India–Japan collaboration, Japanese language education, and ongoing research in the field of educational technology and applied linguistics. The visit offered us valuable insights into higher education, research, technological applications, and opportunities for international academic and professional collaboration.

Objective:

- To provide students with exposure to a higher education and research environment.
- To introduce students to Japanese culture and the education system.
- To create awareness about India–Japan academic and STEM collaboration.
- To understand the importance of Japanese language education and research.
- To introduce students to algorithms and their applications in Computer Science.
- To provide an understanding of cryptography and information security.
- To familiarize students with academic resources, facilities, and student innovations at IIT Hyderabad.
- To encourage students to explore higher education, research, technology, and innovation.

Outcome:

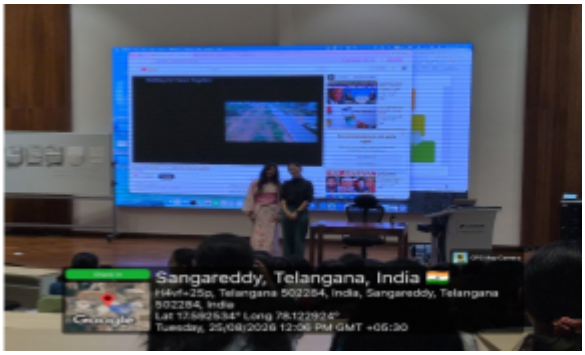
- Students gained exposure to the academic and research environment at IIT Hyderabad.
- Students developed an understanding of Japanese culture, education, and language learning.
- Students gained awareness of India–Japan collaboration in education, STEM, and technology.
- Students learned about research in Japanese language education and educational technology.
- Students gained a better understanding of algorithms and problem-solving approaches.
- Students learned the basic concepts and applications of cryptography through practical examples.
- Students explored the library, sports facilities, Hall of Fame, and campus infrastructure.
- Students gained motivation to explore higher education, research, innovation, and technological opportunities.

Pictures



Group Photo – Faculty and Students during the IIT Hyderabad Visit





Faculty and Students at IIT Hyderabad Campus

Signature of StarDBT coordinators:

1. Savithri
2. Jy

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ST. FRANCIS COLLEGE FOR WOMEN, HYDERABAD

ACADEMIC YEAR 2026 - 2027

DEPARTMENT OF COMPUTER SCIENCE

Report on Dronetech: From Concept to Flight Conducted on 24th - 25th August, 2026

Time: 8:30 a.m-3:00 p.m.

Brochure:



The Department of Computer Science organized a Two-day workshop during 24th-25th August,2026, for B.Sc. Second Year Computer Science students. The workshop was designed to move beyond theoretical classroom instruction and provide students with practical exposure to the complete lifecycle of a quadcopter, from structural assembly and circuit integration to flight-controller configuration, calibration and flight trials.The resource persons for the workshop are Mr. K S Pravyuth.

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DEPARTMENT OF COMPUTER SCIENCE

Objective:

- To introduce students to the fundamentals of drone technology, quadcopter structure and basic aerodynamics.
- To provide hands-on experience in assembling drone frames, motors, ESCs, flight controllers, GPS/compass modules and radio receivers.
- To develop practical skills in circuit integration, wiring, soldering and component mounting.
- To familiarize students with Pixhawk flight controllers, Mission Planner, firmware flashing and real-time telemetry.
- To provide practical exposure to sensor calibration, radio calibration, safety checks and pre-flight testing.
- To develop problem-solving, troubleshooting, teamwork and communication skills through hands-on activities.

Outcome:

- Students gained practical knowledge of drone hardware assembly, component mounting, wiring, soldering and cable management.
- Participants developed proficiency in Mission Planner for firmware flashing, telemetry monitoring, calibration and parameter configuration.
- Students understood how motors, ESCs, flight controllers, GPS and radio receivers work together as an integrated embedded system.
- The workshop strengthened students' troubleshooting and systematic problem-solving abilities through real hardware and software issues.
- Team-based activities improved collaboration, communication and task-sharing skills.
- Students gained confidence by successfully assembling, configuring and flying drones under supervision.
- The workshop generated interest in advanced areas such as autonomous mission planning and computer vision integration.

Pictures:





Live-Drone-Flying Session



Faculty & Students with the Resource Persons

Signature of StarDBT coordinators:

1. Savithri

2. Jy

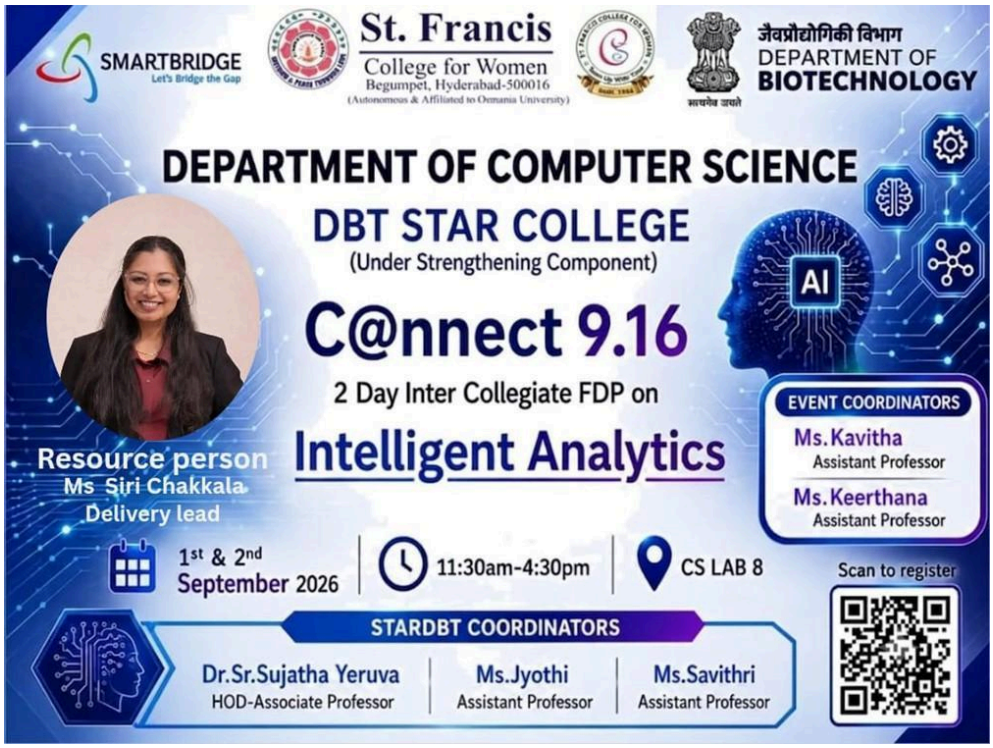
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ACADEMIC YEAR 2026 - 2027

DEPARTMENT OF COMPUTER SCIENCE

Report on Two-Day Inter Collegiate Faculty Development Programme: "Intelligent Analytics"
Conducted on 1st - 2nd September, 2026

Brochure:



The Department of Computer Science organized a two-day Inter Collegiate Faculty Development Programme (FDP) on "Intelligent Analytics" on 1st and 2nd September 2026. The programme was conducted in an offline mode at St. Francis College.The FDP was designed as a practical and engaging learning experience that guided participants through the complete journey of turning data into useful information, statistical evidence and intelligent decisions. The resource persons were Ms. Siri Chakkala – Delivery Lead, The SmartBridge and Ms. Tharuna Sree Golla – Associate Software Engineer, The SmartBridge.

ST. FRANCIS COLLEGE FOR WOMEN, HYDERABAD

DEPARTMENT OF COMPUTER SCIENCE

Objective:

- To strengthen participants' understanding of data exploration and statistical reasoning.
- To provide practical exposure to commonly used Python tools for data analytics and machine learning.
- To help participants understand how datasets can be cleaned, explored and visualized.
- To develop an understanding of statistical testing and interpretation of results.
- To introduce important machine learning approaches and the process of building predictive models.
- To familiarize participants with model evaluation techniques and performance measures.
- To demonstrate how predictions can be connected to simple decision-support mechanisms.
- To encourage hands-on learning through practical activities and mini-projects.

Outcome:

- Participants gained practical skills in data exploration and cleaning using Pandas and NumPy.
- The faculty developed the ability to visualize and interpret data using Matplotlib and descriptive statistics.
- Participants gained an understanding of sampling, correlation, and hypothesis testing.
- Faculty learned to perform t-test, Chi-Square test, and ANOVA using SciPy.
- Participants developed an understanding of supervised and unsupervised machine learning approaches.
- Faculty gained hands-on experience in regression, classification, and model prediction using Scikit-learn.
- Participants learned to apply K-Means clustering for identifying patterns and groups in data.
- The faculty understood how machine learning predictions can support simple decision-making systems.

Pictures:





Faculty Participants attending the session



Faculty Participants with the Resource persons

Signature of StarDBT coordinators:

1. Savithri
2. Jy

ST. FRANCIS COLLEGE FOR WOMEN, HYDERABAD

ACADEMIC YEAR 2026 - 2027

DEPARTMENT OF COMPUTER SCIENCE

Report on Two-Day Inter Collegiate Faculty Development Programme:
"Modern AI Toolkit: From Gen AI to Autonomous Agents"
Conducted on 15th - 16th September, 2026

Brochure:



The Department of Computer Science organized a two-day Faculty Development Programme (FDP) on "Modern AI Toolkit: From Gen AI to Autonomous Agents" for 18 faculty members of the Department of Computer Science and 22 M.Sc. Data Science and Computer Science (AI & ML) students on 15th - 16th September, 2026. The programme was designed as a practical and engaging learning experience that connected classroom concepts with current AI development practices. The resource person, Mr. Syfulla Khan Pattan – AI Specialist, AT&T and IIC, provided participants with theoretical insights along with extensive hands-on exposure to Machine Learning, Deep Learning, Natural Language Processing (NLP), Large Language Models (LLMs), Prompt Engineering, Retrieval-Augmented Generation (RAG), and Agentic AI.

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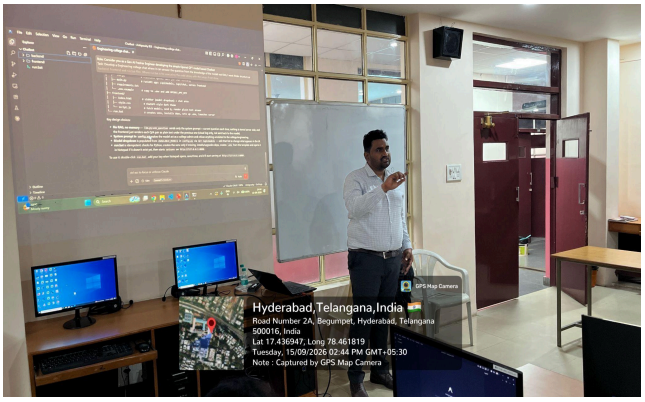
Objective:

- To introduce Generative AI and Agentic AI concepts.
- To understand Machine Learning and its workflow.
- To introduce Deep Learning, NLP, and neural networks.
- To understand Large Language Models and embeddings.
- To develop skills in Prompt Engineering.
- To introduce RAG and document-grounded AI.
- To understand AI Agents and tool/function calling.
- To provide hands-on experience in developing AI applications.

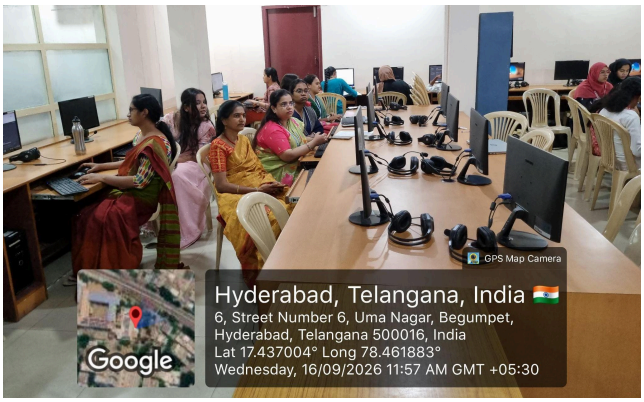
Outcome:

- Participants gained an understanding of Generative AI, Agentic AI, Machine Learning, Deep Learning, NLP, and Large Language Models.
- Participants understood the Machine Learning workflow, including data preparation, training, evaluation, and deployment, along with classification and regression.
- Participants gained knowledge of neural networks, tokenization, embeddings, context windows, hallucinations, and structured/JSON outputs.
- Participants explored temperature, Top-K, and Top-P parameters and observed their effect on chatbot responses.
- Participants gained practical experience in Prompt Engineering, including zero-shot and few-shot prompting, role-based prompts, structured prompting, and iterative refinement.
- Participants learned the complete RAG workflow, from document ingestion and chunking to embeddings, vector search, retrieval, context construction, and grounded generation.
- Participants understood AI Agents, tool calling, planning, multi-step workflows, context management, human-in-the-loop, and guardrails and gained hands-on experience using Antigravity.
- Participants successfully developed and tested four working websites/applications, gaining practical exposure to frontend-backend integration, RAG-based applications, and document-grounded AI assistants.

Pictures:



Day -1 : Resource Person Delivering Session



Day - 2 : Hands-on Working Session



Students & Faculty with the Resource Person

Signature of StarDBT coordinators:

1. Savitheri

2. Jy

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DEPARTMENT OF MATHEMATICS & STATISTICS
2026-27

S.No.	Date	Activity
1	3/7/2026	Hands-on Training on "Mathcad Software on Linear Algebra"
2	24/7/2026	Hands-on Training on "Exploring Mathematics with Python" for students
3	25/7/2026	Guest Lecture on "Career in Mathematics and AI Discovery" for faculty
4.	19/8/2026	Pi Approximation Day
5.	29/8/2026	Field trip to IIT Hyderabad, Kandi
6.	5/9/2026	Workshop on "Python programming on Eigen values and Eigen vectors"
7	7/9/2026	Workshop on "Linear Algebra and its Applications"
8	15/9/2026	Workshop on "Applications of Algebra in Data Science and Machine Learning and Applications of ODE and PDE in technology"
9	17/9/2026	Hands-on Training on "Mathcad Software on Numerical Analysis"
10	03/7/2026	National Statistics Day
11	12/8/2026-13/8/2026	Workshop on "Power BI Essentials: Visualizing, Analyzing and Reporting of Data".
12	24/8/2026	Field Trip to ICRISAT
13	2/9/2026	Guest Lecture on ""Statistics for Decision Making and Applications-Overview" .

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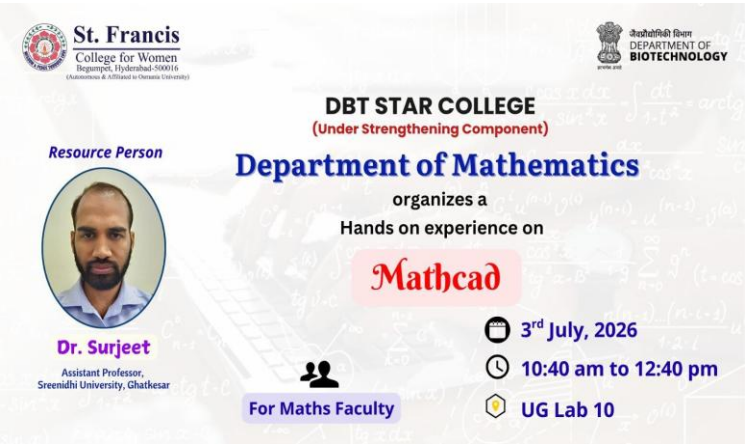
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Hands-on Training on "Mathcad Software"

Date: 3-07-2026

Time: 10:40 AM to 12:40 PM

Brochure:



The Department of Mathematics organized Hands on Training on "Matlab Software" under STAR DBT for faculty on 3rd July, 2026. in Lab 10 from 10:40 AM to 12:40 PM.

The resource person for the session was Dr.A.Surjeet, Assistant Professor, Department of Mathematics, Sreenidhi University, Ghatkesar..

The objective for the session was:

- The workshop was designed for the faculty to gain hands-on experience using Matlab to get numerical solutions of Linear Algebra.

Outcomes:

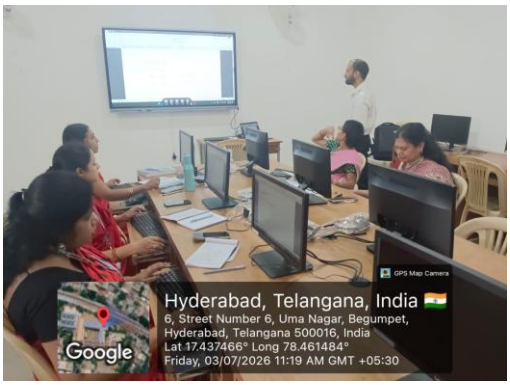
- Faculty developed hands-on proficiency in using MATLAB for solving

  Concepts in Linear Algebra.

Pictures:







Y. Suryavardhani

Dr.Y.Suryavardhani
(DBT Coordinator)

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Career in Mathematics

Date: 24-07-2026

Time: 9:30 AM to 12:30 PM

Brochure:

AI tools for Mathematics and Learning (Hands-on)



The Department of Mathematics organized online guest lecture on "Mathematics in AI" under STAR DBT for BSc final year selected students on 24th July, 2026 from 10:30 AM to 12:30 PM.The resource person for the session was Prof. A.Satyanarayana Reddy,Department of Mathematics,Shiv Nadar University,Delhi..

The objective for the session was:

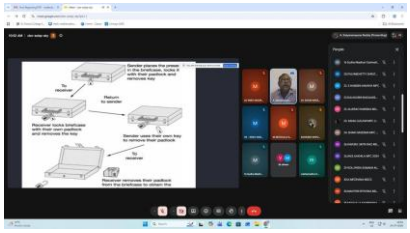
- To introduce students to the fundamental mathematical concepts underlying Artificial Intelligence and Machine Learning.
- To understand the role of **linear algebra, calculus, probability, statistics, and optimization** in AI.
- To demonstrate how mathematical models and algorithms are used to solve real-world AI problems.

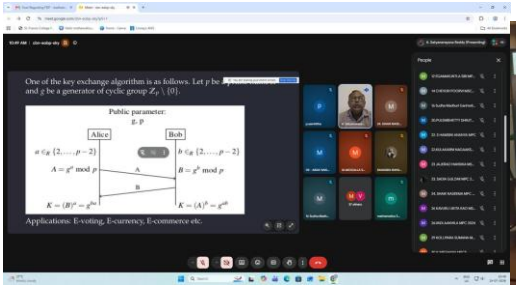
Outcomes:

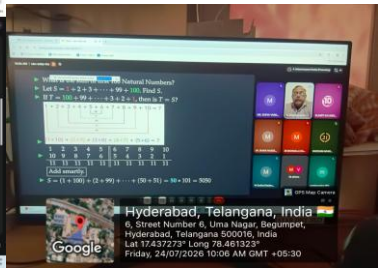
- Identify the key mathematical concepts involved in **Artificial Intelligence and Machine Learning**.
- Explain the applications of **linear algebra, calculus, probability, statistics, and optimization** in AI.
- Apply basic mathematical techniques to understand and formulate AI models.

Pictures:









Y. Suryavardhani

Dr.Y.Suryavardhani
(DBT Coordinator)

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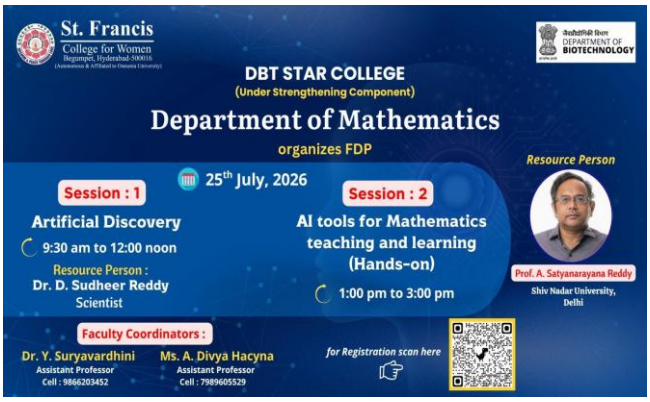
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Artificial Discovery and AI tools for Mathematics

Date: 25-07-2026

Time: 1:00 PM to 3:30 PM

Brochure:



The Department of Mathematics organized Hands on Training on "Python:A Computational tool" under STAR DBT for BSc final year selected students on 25th July, 2026 from 10:30 AM to 12:30 PM.The resource person for the session was Prof.A.Satyanarayana Reddy, Shivanadir University, Delhi.

The objective for the session was:

- Understand the fundamentals of Python programming and its role in scientific computing.
- Develop Python programs to solve mathematical and computational problems efficiently.
- Apply Python libraries for numerical computations, matrix operations, and data visualization.
- Enhance logical thinking, problem-solving, and algorithmic skills through hands-on programming.

Outcomes:

- Write and execute Python programs to solve mathematical and computational problems.
- Use Python libraries such as NumPy, Matplotlib, and SymPy for numerical computation, visualization, and symbolic mathematics.
- Implement computational techniques for matrices, systems of equations, graphing, and other mathematical applications.

The Department of Mathematics, under the **DBT STAR College Strengthening Component**, organized a **Hands-on Training** on "**AI tools for Mathematics and Learning " 25th July 2026**, from **1:00 PM to 3:30 PM**, for faculty members from various institutions. The session was delivered by **Prof A Satyanarayana Reddy**,Shiv Nadar University, Delhi who shared valuable insights into the emerging role of Artificial Intelligence and its applications in scientific research and higher education.

The objective for the session was:

- To provide faculty members with practical exposure to AI-powered tools for mathematics teaching and learning.
- To develop competency in using AI tools for creating lesson plans, question papers, assignments, presentations, and instructional resources.

The outcomes for the session was

- Use AI tools confidently to design and deliver interactive mathematics lessons.
- Generate AI-assisted teaching materials, assessments, and learning resources.

Pictures:









Y. Suryavardhani

Dr.Y.Suryavardhani
(DBT Coordinator)

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Field Trip to the IIT Hyderabad

Date: 29-08-2026

Time: 9:00 AM to 3:00 PM

Brochure:



The Department of Mathematics organized a field trip to Indian Institute of Technology (IIT) Hyderabad,under DBT STAR COLLEGE (Strengthening Component), on 29th October 2026 from 9 am to 3 pm. Around 50 students from BSc Second and final year (MES) physical sciences are part of this field trip.

Objectives:

- To provide exposure to advanced scientific research facilities and laboratories in the fields of Mathematics, Physics, and Chemistry.
- To motivate students to pursue higher education and research opportunities by showcasing academic and career pathways available at IIT Hyderabad.

Outcomes:

- The visit will motivate students to consider pursuing higher studies (M.Sc., Ph.D.) or careers in research and development.
- Students will understand various academic and professional pathways available in science and research, helping them plan their future career decisions.

Pictures:





Y. Suryavardhani

Dr.Y.Suryavardhani
(DBT Coordinator)

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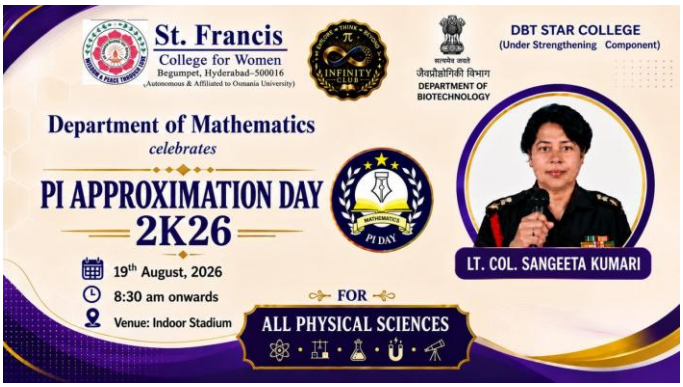
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Pi Day 2026

Date: 19-08-2026

Time: 8:30 AM to 1:00 PM

Brochure:



The Department of Mathematics organized Pi Day 2026 under STAR DBT for BSc Physical Sciences on 19th August, 2026 at Indoor Stadium from 8:30 AM to 1:00 PM.The event was graced by Chief Guest, Lt. Col. Sangeeta Kumari.

The objective for the session was:

- To create awareness about the history, significance, and properties of the mathematical constant π (pi).
- To develop students' interest and curiosity towards mathematics through engaging activities**.**

Outcomes:

- Develop logical thinking, numerical reasoning, and problem-solving abilities through mathematical activities.
- Collaborate and communicate mathematical ideas effectively through group activities and presentations.
- Appreciate mathematics as an interesting, creative, and applicable subject beyond the classroom.

Pictures:









Y. Suryavardhani

Dr.Y.Suryavardhani
(DBT Coordinator)

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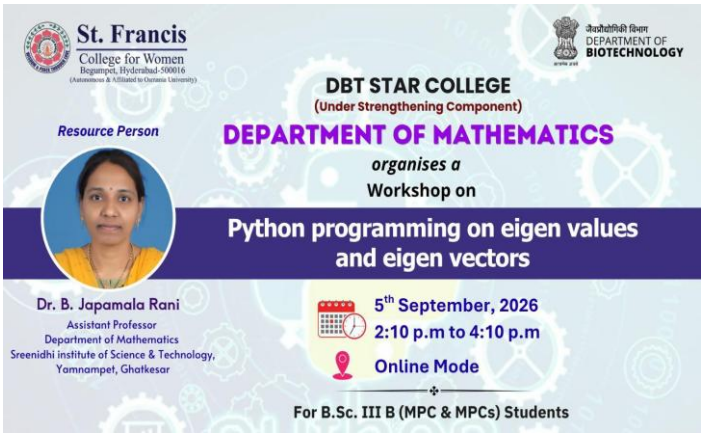
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Workshop on " Python Programming on eigenvalues and eigenvectors"

Date: 5-09-2026

Time: 2:10 PM to 4:10 PM

Brochure:



The Department of Mathematics organized a workshop on **"Python Programming on eigenvalues and eigenvectors"** under STAR DBT for BSC III B on 5th September, 2026, in online mode from 2:10 PM to 4:10 PM.

The resource person for the session was Dr.B Japamala Rani, Assistant Professor, Department of Mathematics, Sreenidhi Institute of Science & Technology, Ghatkesar.

The objective for the session was:

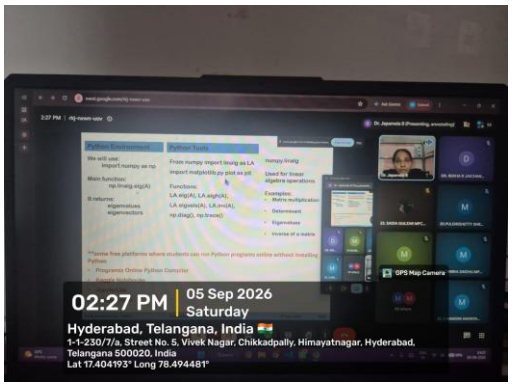
- The workshop was designed for the students to gain hands-on experience using Python to get numerical solutions of Linear Algebra.

Outcomes:

- Several examples were demonstrated practically using Google Colab
- Various basic Python operators were discussed and explained applications on Numpy

Pictures:





Y. Suryavardhani

Dr.Y.Suryavardhani
(DBT Coordinator)

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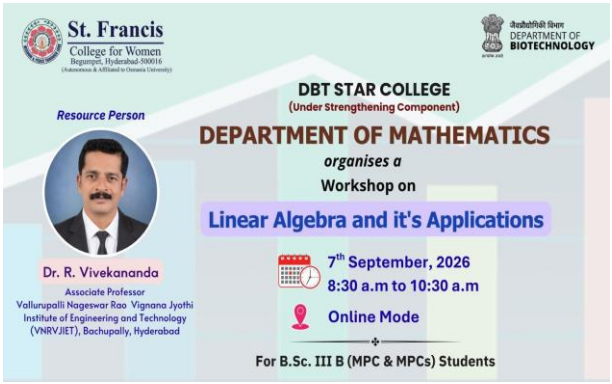
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DEPARTMENT OF BIOTECHNOLOGY
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Workshop on " Linear Algebra & its Applications"

Date: 7-09-2026

Time: 8:30 AM to 10:30 AM

Brochure:



The Department of Mathematics organized a workshop on **" Linear Algebra & its Applications"** under STAR DBT for BSC III B on 7th September, 2026, in online mode from 8:30 AM to 10:30 AM.

The resource person for the session was Dr.R Vivekananda, Associate Professor, Department of Mathematics, Valluripalli Vigneshwar Rao Vignana Jyothi Institute of Engineering and Technology, Bachupally, Hyderabad.

The objective for the session was:

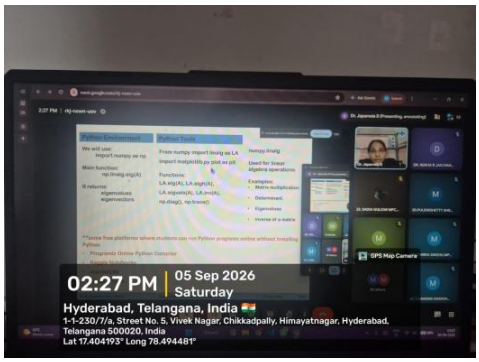
- The workshop was designed for the students to gain hands-on experience using Python to get numerical solutions of Linear Algebra.

Outcomes:

- Several examples were demonstrated practically using Google Colab
- Various basic Python operators were discussed and explained applications on Numpy

Pictures:





Y. Suryavardhani

Dr.Y.Suryavardhani
(DBT Coordinator)

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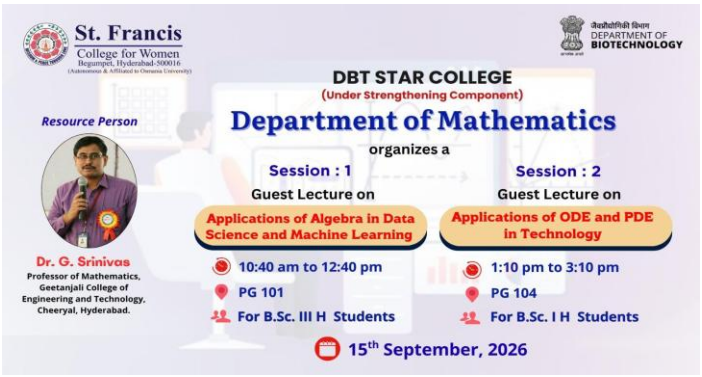
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Guest Lecture on "Applications of Algebra in Data Science and Machine Learning and Applications of ODE and PDE in Technology"

Date: 15-09-2026

Time: 10:40 AM to 12:40 PM and 1:10 PM to 3:10 PM

Brochure:



The Department of Mathematics, under the DBT STAR College Strengthening Component, organized a Guest Lecture on "Applications of Algebra in Data Science and Machine Learning" and "Applications of ODE and PDE in Technology" on 15th September 2026. The first session was conducted for B.Sc. III H students from 10:40 AM to 12:40 PM, followed by the second session for B.Sc. I H students from 1:10 PM to 3:10 PM.The resource person for the session was Dr. G Srinivas, Professor of Mathematics, Geetanjali College of Engineering and Technology, Cheeryal, Hyderabad.

Objectives:

- To introduce students to the applications of algebra in Data Science and Machine Learning.
- To explore the role of Ordinary Differential Equations (ODEs) and Partial Differential Equations (PDEs) in technological applications.
- To connect mathematical concepts with real-world, computational, and technological problems.

Outcomes:

- Relate mathematical concepts to computational and practical applications.
- Recognize the role of mathematics in emerging areas such as Data Science, AI, Machine Learning, and technology.

Pictures:





Y. Suryavardhani

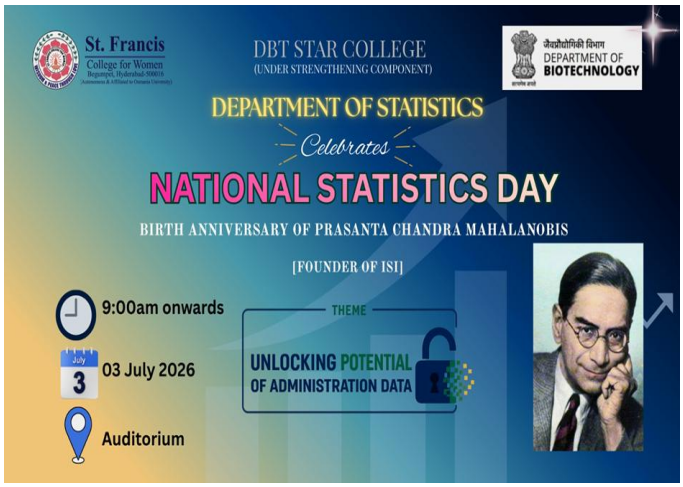
Dr.Y.Suryavardhani
(DBT Coordinator)

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Report on "NATIONAL STATISTICS DAY"

Date: 3rd July, 2026.
Time: 9:00AM-1:00PM
Brochure:



Department of Statistics had organized **National Statistics Day**, to mark the birth anniversary of late Professor and Scientist Prasanta Chandra Mahalanobis on 3rd July 2026. The event was organized for all the students of B.Sc(D,H& MES) in Auditorium. The inaugural was graced by principal Prof. Uma Joseph. The event began at 9:30am, with a prayer and prayer song followed by the presentation about the National Statistics Day.

Around 350 students were a part of the event and on the whole it was a great event.

Objectives:

1. To create awareness about the importance of administrative data as a valuable resource for evidence-based policymaking and good governance.

2. To encourage students to explore the application of statistical tools and data analytics in solving real-world administrative and societal challenges.

3. To inspire young learners to develop analytical thinking and data-driven decision-making skills for future careers in statistics and public administration.

Outcomes:

1. Improve their problem-solving abilities by interpreting data and drawing meaningful conclusions.

2. Strengthen teamwork, communication, and leadership skills through participation in group events and competitions.

3. Gain motivation to apply statistical concepts to real-world situations and societal issues.

Pictures:





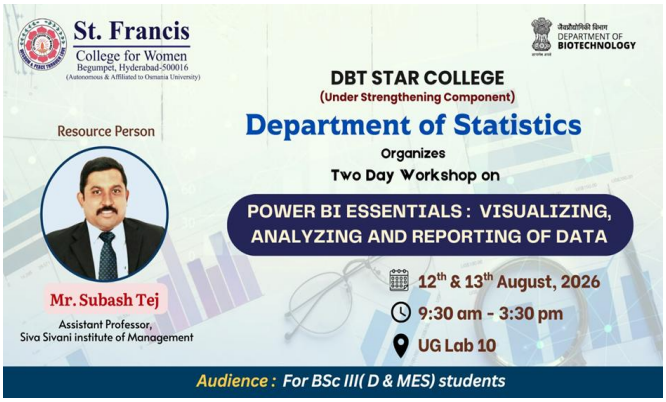
G.Priyanka
(DBT Coordinator)

Report on WORKSHOP titled "POWER BI ESSENTIALS: VISUALIZING, ANALYZING AND REPORTING OF DATA"

Date: 12th and 13th August, 2026

Time: 9:30 AM - 3:30 PM

Brochure:



The Department of Statistics had organized a workshop on 12th and 13th August 2026. The speaker for the session was Mr. Subash Tej, Assistant Professor, Siva Sivani Institute of Management. The talk was attended by BSc (MSCs) final years in UG Computer Lab from 9:30 am to 3:30pm.

Objectives:

To provide students with a brief understanding of Power BI and its impact on real time analysis.

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. They were also provided opportunity to work with multiple data sets.

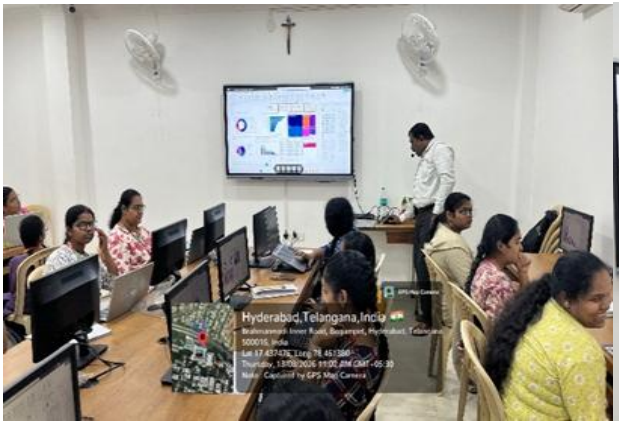
Pictures:



Felicitation to Resource Person



Interactive Session



Creating a Dashboard



Diagrammatic visualization

G.Priyanka
(DBT Coordinator)

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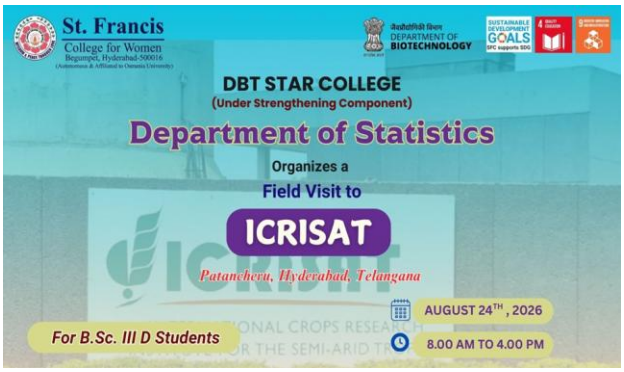
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Report on "FIELD TRIP TO ICRISAT"

Date: 24th August, 2026.

Time: 8:00 AM - 4:00 PM

Brochure:



The Department of Statistics organized Field trip to ICRISAT, Patancheru, Hyderabad under DBT STAR COLLEGE (Strengthening Component) for the BSc.III D & III MES students. Around 70 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.

Pictures:



ICRISAT, Patancheru



Interaction with Statistical Officer



Exploring the facilities



Group picture



G.Priyanka
(DBT Coordinator)

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Report on Guest Lecture: "Statistics for Decision Making and Applications-Overview"

Date: 2nd September, 2026

Time: 9:30AM- 10:30AM

Brochure:



The Department of Statistics organized a guest lecture on "**Statistics for Decision Making and Applications-Overview**", under DBT STAR COLLEGE (Strengthening Component) for the BSc. (D, MES) first year students. Around 100 students and 2 faculty members participated.

Objectives:

1. To introduce students with an overview of the role, importance, and practical applications of statistics in data analysis, problem-solving, and evidence-based decision-making.
2. To develop an understanding of basic statistical concepts and their applications in real-world situations.

Outcomes:

1. Students identify appropriate statistical approaches for different types of data and practical situations.
2. Students gained an understanding of how statistical concepts and data-driven approaches can be used to interpret information, solve real-world problems, and support effective decision-making across various fields.

Pictures:







G.Priyanka
(DBT Coordinator)

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DBT CONSOLIDATED REPORT 2026-2027

DEPARTMENT OF MICROBIOLOGY

S.No.	Date	Activity
1	30-06-2026	One-Day Training Workshop on Molecular Biology and Genomics
2	29-07-2026	Guest lecture on From Curious Minds To Breakthroughs: The Pursuit Of Scientific Research
3	18-08-2026 & 19-08-2026	Workshop on Cell Culture Techniques
4	31-08-2026 to 2-09-2026	Workshop on Bioinformatics
5	02-09-2026	Training program on Preparation of Media, Sterilization Techniques and Log Book Maintenance
6	10-09-2026	Hands On Training on Biofertilizers and Biopesticides

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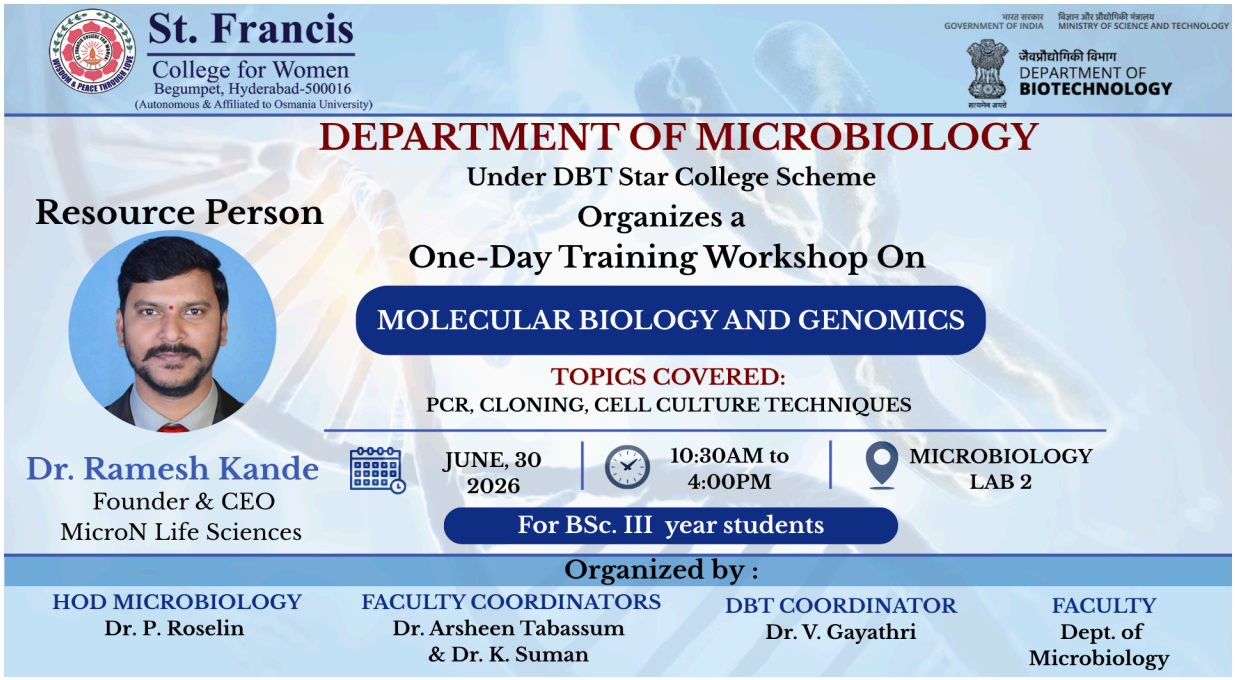
Report on One-Day Training Workshop on Molecular Biology and Genomics
Date: 30-06-2026

Time: 10:30 AM to 4:00 PM

Venue: Microbiology Lab

No. of Beneficiaries: 20

Brochure



Objectives:

- To provide undergraduate students with comprehensive, hands-on training and theoretical insight into core molecular biology, cloning, and genomics workflows.
- To bridge academic fundamentals with practical laboratory applications in primer designing, polymerase chain reaction (PCR) modalities, SDS PAGE, and Western blotting.
- To introduce the fundamental principles and technical execution of animal cell culture techniques.
- To cultivate analytical troubleshooting skills and encourage open discussion regarding modern experimental design.

Outcomes:

- Participants gained concrete, hands-on experience executing PCR and Southern Blot techniques under industrial-level guidance.
- Participants developed a foundational understanding of cell culture methods and the algorithmic approach to primer design.
- Participants acquired the ability to evaluate and discuss experimental results during an interactive concluding questionnaire.

Pictures



Dr. Anitha Thomas & Dr.V. Gayatri felicitating the guest speaker Dr. Ramesh Kande



Team MicroN Lifesciences with the Department of Microbiology & Bsc. Final year student



Dr. Swati Raju taking the workshop lecture.

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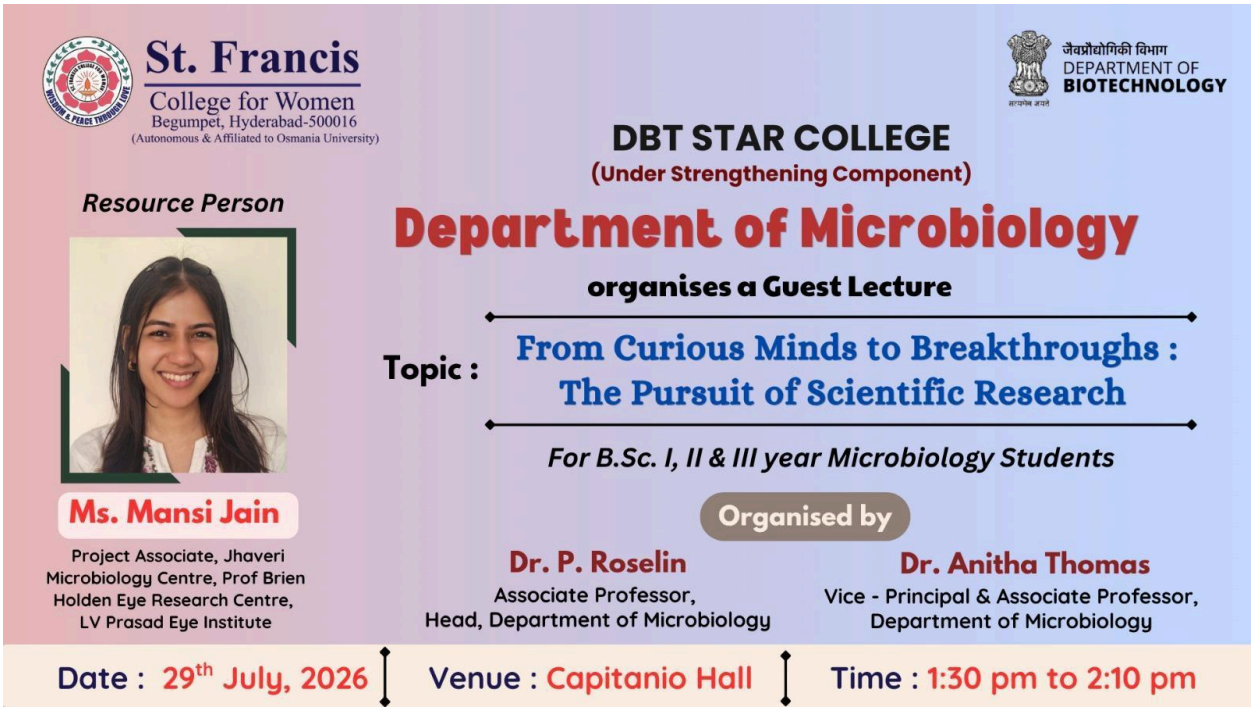
Report on Guest lecture on From Curious Minds To Breakthroughs: The Pursuit Of Scientific Research
Date: 29-07-2026

Time: 1:30 PM to 2:10 PM

Venue: Capitanio Hall

No. of Beneficiaries: 150

Brochure:



Objectives:

- To explore the journey of scientific research, from curiosity-driven questions to meaningful breakthroughs in the field of microbiology.

- To inspire students toward pursuing research as a career path by demonstrating a relatable, early-career researcher's journey

- To bridge the gap between classroom microbiology concepts and their real-world research applications

- To create a platform for students to interact directly with an early-career researcher and ask discipline-specific questions

Outcomes:

- The B.Sc I, II & III year students were exposed to real research methodology and techniques used in ocular microbiology.

- The students were provided with insights into endophthalmitis - its causes, diagnosis, and the ongoing research aimed at improving treatment outcomes.

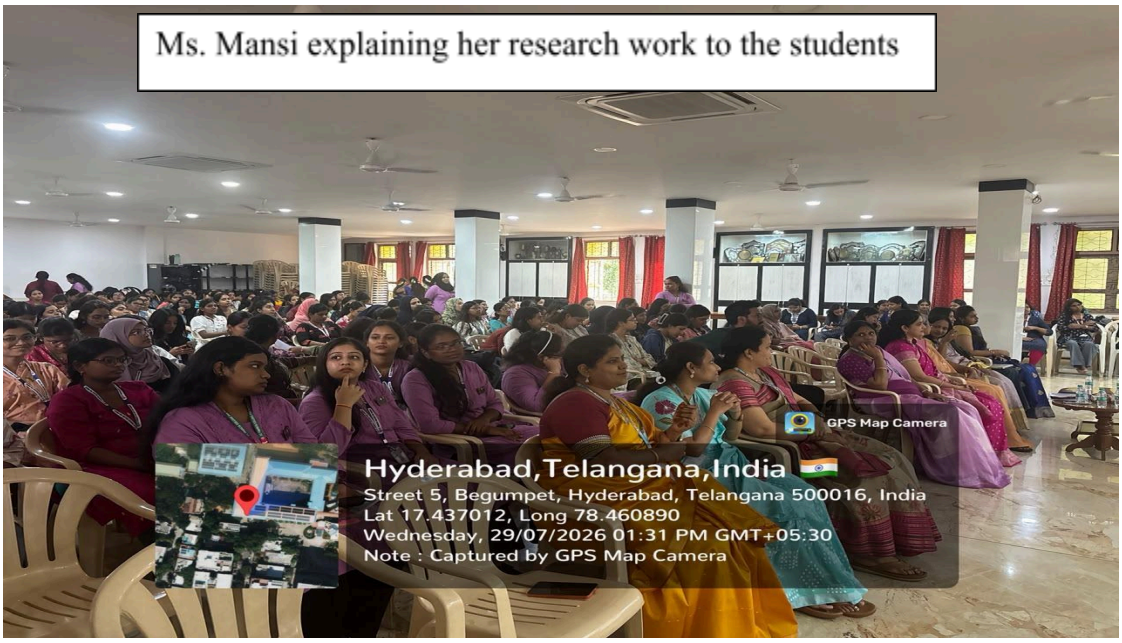
- The students were introduced to the research work being carried out at the Jhaveri Microbiology Centre, Prof. Brien Holden Eye Research Centre, LV Prasad Eye Institute.

- The students were taught to think critically about the "why" behind research techniques, not just the "how"

Pictures



Ms. Mansi explaining her research work to the students



The students and faculty engaged in the session

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Report on Workshop on Cell Culture Techniques

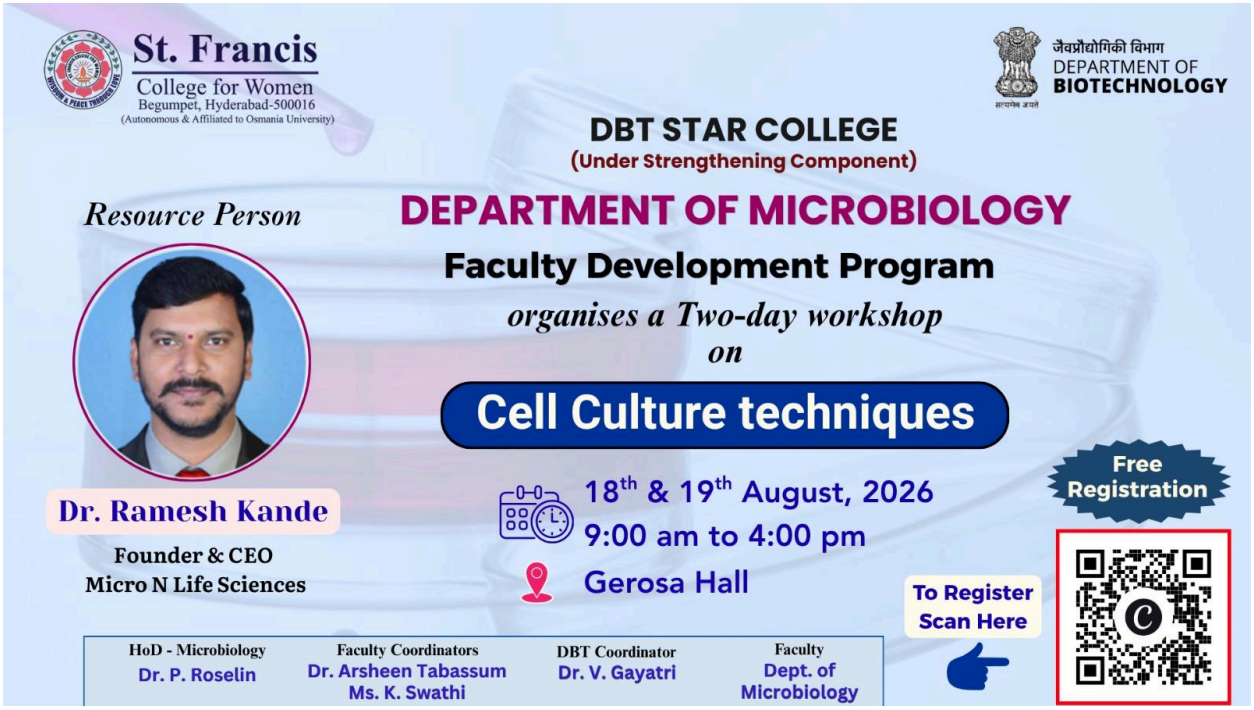
Date: 18th & 19th August 2026

Time: 09:00 AM to 4:00 PM

Venue: Microbiology Lab

No. of Beneficiaries: 20

Brochure:



Objectives:

- To provide faculty members with a fundamental understanding of cell culture techniques and their principles.
- To provide practical exposure to the handling, maintenance and subculturing of cultured cells.
- To introduce participants to various applications of cell culture techniques in microbiology, biotechnology, and research.
- To promote interaction and knowledge sharing between faculty members and an experienced industry person.

Outcomes:

- Participants understood the basic principles and significance of cell culture techniques.
- Gained information of the essential requirements, procedures, and technical skills involved in the handling and maintenance of cell lines.
- Attained knowledge to design potential student projects and faculty research activities.
- Improved the confidence in planning and to establish a cell culture-based laboratory at college level.

Pictures



Participants at the Inaugural Program



Participants during workshop



Group photo at valedictory program

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Report on Workshop on Bioinformatics

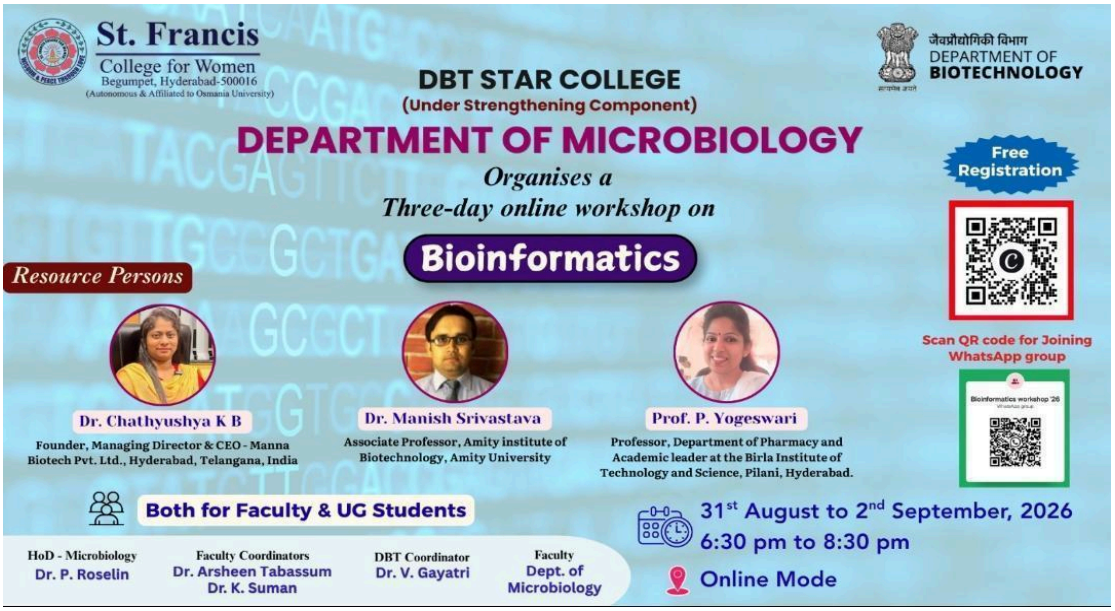
Date: 31st August to 2nd September

Time: 6:30 PM to 8:30 PM

Venue: Online mode

No. of Beneficiaries: 100

Brochure:



Objectives :

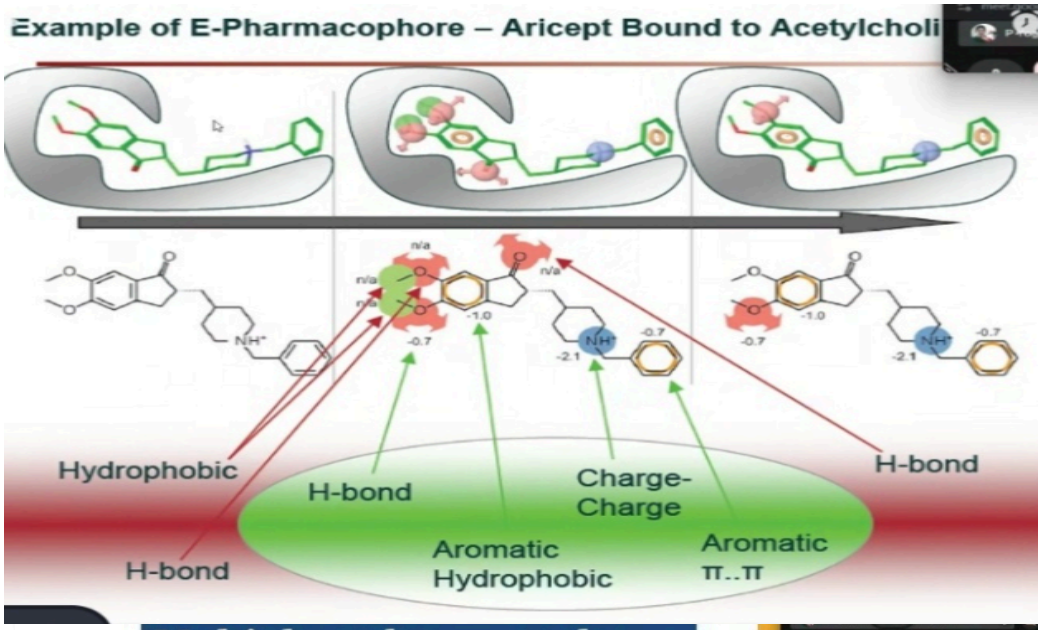
- To introduce both faculty and undergraduate students to fundamental computational tools and databases used in biological data analysis.
- To explore the practical applications of bioinformatics in drug discovery, genomics, and translational life sciences research.
- To bridge the gap between biological laboratory data and computational modeling through expert-led virtual sessions.
- To foster interdisciplinary research capabilities and digital analytical skills across faculty and UG student cohorts.

Outcomes :

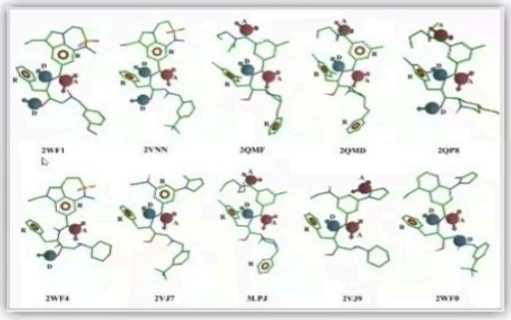
- Participants gained a foundational understanding of core bioinformatics algorithms, sequence alignment, and biological database navigation.
- Participants acquired practical insights into computational methodologies applicable to academic research and biotechnological innovation.
- Faculty and undergraduate students enhanced their technical digital competencies for analyzing complex biological datasets.
- Attendees established a solid theoretical framework to integrate bioinformatic workflows into their ongoing academic curriculum and research projects.

Pictures





Multiple e-pharmacophore



S. No	PDB code	Total no. of available sites	No. of optimized sites	Hypothesis
1	2wf1	6	5	RRADD
2	2vnn	6	5	RRADD
3	2qmf	9	5	RRAAD
4	2qmd	10	6	RRRAAD
5	2qp8	7	5	RAADD
6	2wf4	6	4	RRAD
7	2vj7	8	4	RRAD
8	3lpj	8	5	RRAAD
9	2vj9	7	4	RAAD
10	2wfo	9	4	RADD

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Report on Training program on Preparation of Media, Sterilization Techniques and Log Book Maintenance

Date: 02-09-2026

Time: 8:30 to 10:00 AM

Venue: Microbiology Lab

No. of Beneficiaries: 10

Brochure:



Objectives:

- To provide hands-on understanding of accurate weighing, dissolution, pH adjustment, dispensing, labeling and storage of culture media.
- To enhance knowledge of various sterilization techniques, particularly autoclaving and their appropriate applications in the microbiology laboratory.
- To emphasize the importance of aseptic techniques and laboratory safety practices during media preparation and handling.
- To create awareness about systematic log book maintenance and documentation of laboratory activities.

Outcomes:

- Performed essential steps involved in media preparation with greater accuracy and consistency.
- Gained awareness of the correct procedures for autoclave use, sterilization monitoring and safe handling of sterilized materials.
- Lab staff acquired knowledge about maintenance of accurate and systematic laboratory log books and records.
- Recognized the importance of proper documentation for quality assurance, traceability and efficient laboratory management.

Pictures



Group photograph with the resource person



Participants at the training program



Resource person addressing the lab staff

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Report on Hands On Training on Biofertilizers and Biopesticides

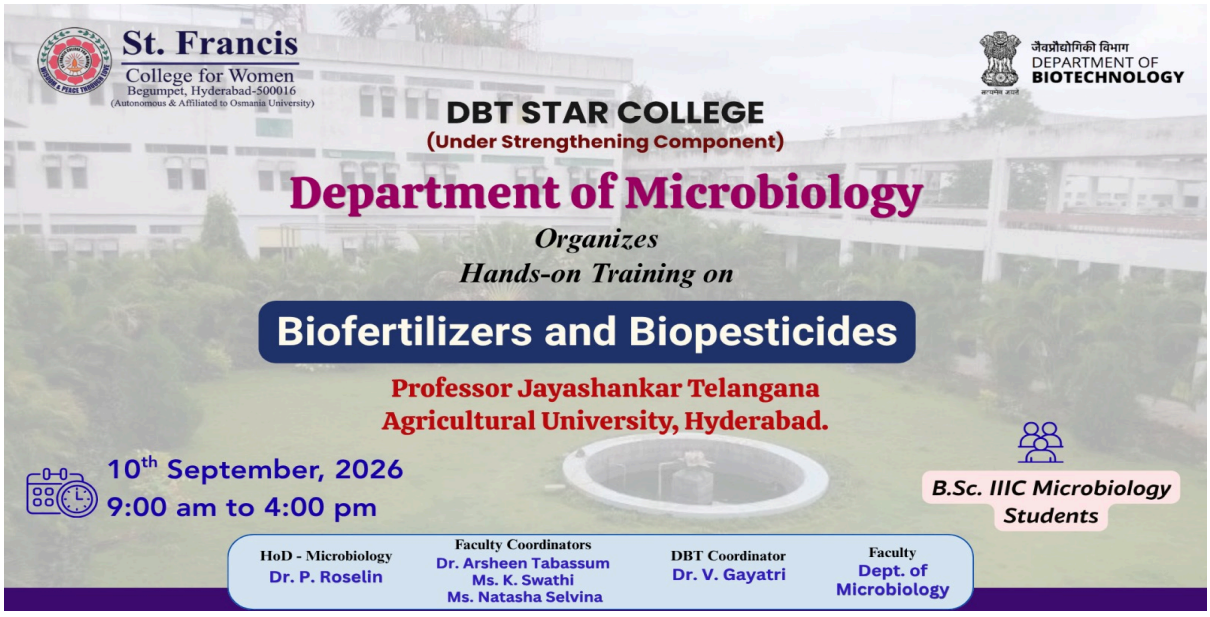
Date: 10-09-2026

Time: 09:00 AM to 4:00 PM

Venue: Professor Jayashankar Telangana State Agriculture University, Hyderabad.

No. of Beneficiaries: 33

Brochure:



Objectives:

- To introduce students to the concept, types, and significance of biofertilizers and biopesticides in sustainable agriculture.
- To familiarize students with the microorganisms used in the production of biofertilizers (e.g., *Rhizobium*, *Azotobacter*, *Azospirillum*, PSB) and biopesticides (e.g., *Trichoderma*, *Bacillus thuringiensis*, *Beauveria bassiana*).
- To provide hands-on exposure to the isolation, mass multiplication, and formulation techniques of biofertilizers and biopesticides.

Outcomes:

- Students gained practical skills in culturing, multiplying, and formulating microbial biofertilizers/biopesticides.
- Students had a better understanding about the principles, mechanisms, and benefits of biofertilizers and biopesticides in crop production.
- Students gained knowledge on quality control and application methods for biofertilizers and biopesticides in the field.
- Enhanced skill sets supported students in pursuing higher studies, research projects, or entrepreneurship in the biofertilizer and biopesticide industry.

Pictures





Resource Speaker addressing the audience

DBT Coordinator

DEPARTMENT OF PHYSICS

Academic Year: 2026 – 2027

S.No	Date	Activity
1	15.07.2026	Guest Lecture on "Neutron Stars in the Era of Gravitational Waves"
2	21.07.2026	Workshop on "Telescopes: Windows to the Universe"
3	05.08.2026	Hands on training in "Solar based Water Level Indicator"
4	11.08.2026	Field Trip to "Japal- Rangapur Observatory"
5	24.08.2026	Faculty Development Programme on "Computer-Interfaced Physics Experiments and Interactive Simulations using ExpEYES"
6	31.08.2026	Hands on training in "3D Printing & Additive Manufacturing"
7	01,02&07.09.2026	Workshop Series on "From Pellet to Graph: A Hands-On Training in Materials Characterization"

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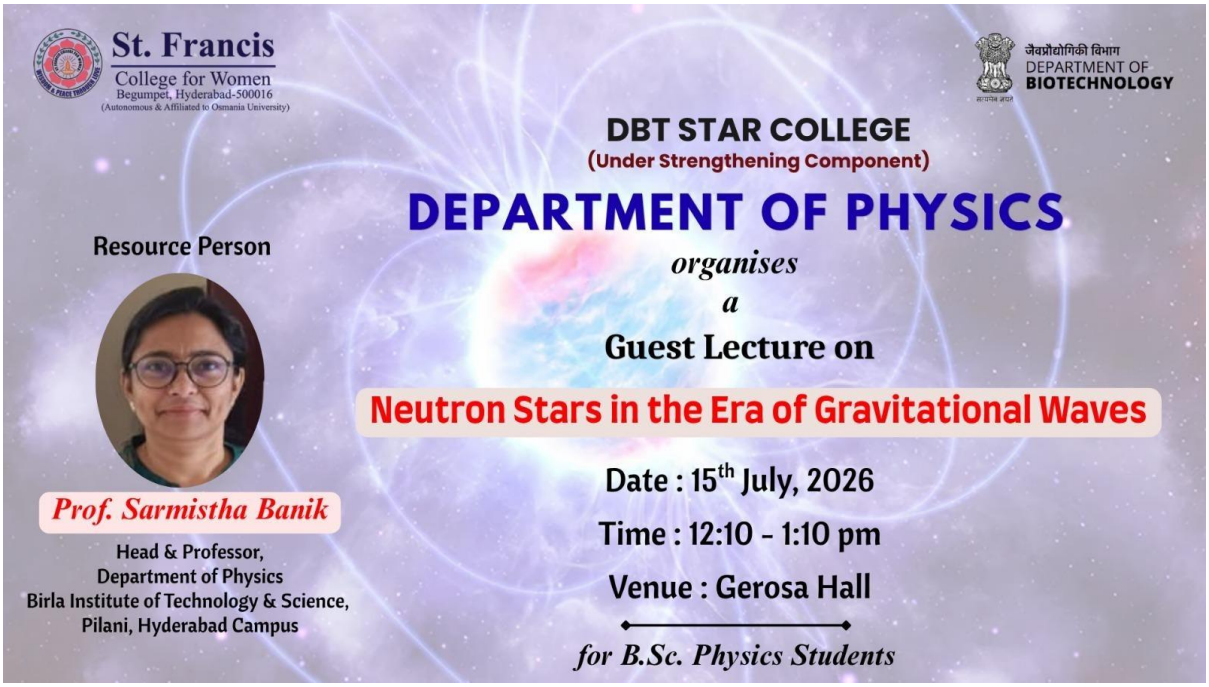
Guest Lecture

Title of the Lecture: Neutron Stars in the Era of Gravitational Waves

Date: 15-07-2026

Time: 12:00 -1:10 PM

Brochure:



Resource Person: Prof. Sarmistha Banik Head & Professor, Department of Physics, BITS Pilani, Hyderabad Campus

The Department of Physics organized a guest lecture on "Neutron Stars in the Era of Gravitational Waves" on 15th July 2026 at Gerosa Hall. The lecture was conducted as part of the DBT STAR College Programme to provide students with exposure to recent advancements in astrophysics and gravitational wave research. Around 144 students and 3 faculty members participated.

Objectives of the Lecture:

1. To introduce students to the structure and properties of neutron stars.
2. To explain the concept of gravitational waves and their detection.
3. To create awareness about recent discoveries in astrophysics.
4. To motivate students towards research in physics and astronomy.

Outcomes of the Lecture

1. Students gained a better understanding of neutron stars, their formation, and their unique properties.
2. They learned about gravitational waves and their importance in modern astrophysics.
3. The lecture provided insights into recent advancements in space research and multi-messenger astronomy.
4. The session encouraged students to develop an interest in higher studies and research in physics and astronomy.

Pictures:



Resource person during the session



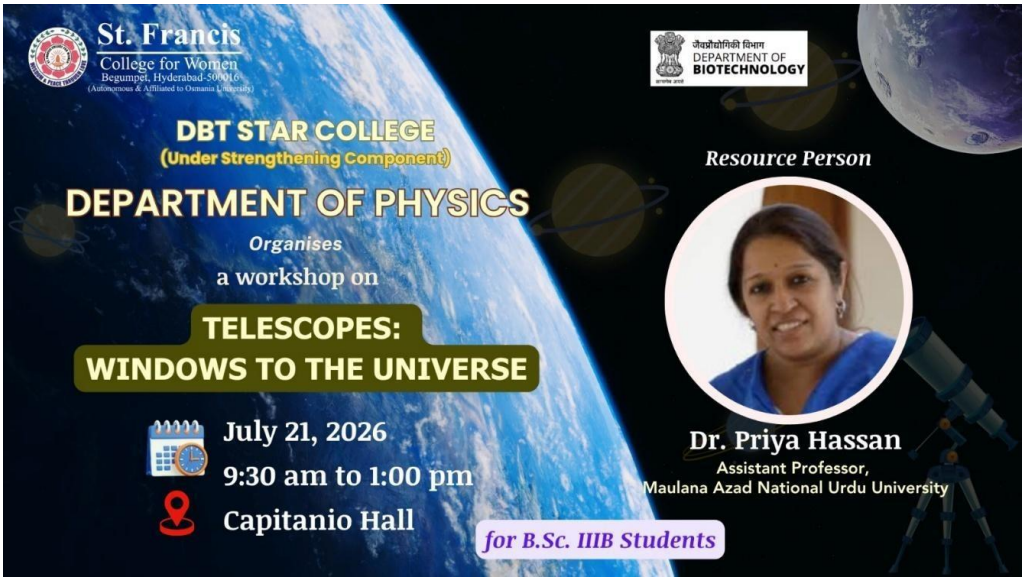
Faculty and participants during the Guest lecture

Workshops

Title of the Workshop: "Telescopes: Windows to the Universe"

Date: 21-07-2026

Time: 9:30 AM-1:00 PM
Brochure:



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The Department of Physics organized a guest lecture and hands-on workshop on "Telescopes: Windows to the Universe" under the DBT STAR College Scheme (Strengthening Component) for the Physics students of 2nd and 3rd years. Around 94 students and 3 faculty members participated. The resource person for the workshop was Dr. Priya Hassan, Assistant Professor, Maulana Azad National Urdu University (MANUU), Hyderabad. The guest lecture was delivered by Dr. Priya Hasan in Gerosa Hall, followed by the hands-on telescope building session in the Physics Lab.

The guest lecture and hands-on workshop on "Telescopes: Windows to the Universe" was an enriching learning experience for the students. The combination of theoretical concepts, practical telescope-building activities, and the introduction to the Stellarium application provided students with valuable exposure to observational astronomy.

Objectives:

1. To introduce students to the basic principles and functioning of telescopes.
2. To provide hands-on experience in assembling and using a simple refracting telescope.
3. To familiarize students with digital astronomy tools such as the Stellarium application for real-time sky observation.

Outcomes:

1. Students gained a clear understanding of the working principles and applications of telescopes in astronomy.
2. The hands-on activity enhanced their practical knowledge of optics and telescope construction.
3. Students learned to use the Stellarium application to identify stars, constellations, and planets, fostering continued interest in astronomical observations.

Pictures:



Resource person during the workshop session.



Resource persons, faculty and participants during the workshop session.



Students participating in the hands-on session

Title of the Workshop: "Solar-Based Water Level Indicator"

Date: 05-08-2026

Time: 10:30 AM - 4:00 PM

Brochure:



The Department of Physics organized a hands-on training session on "Solar-Based Water Level Indicator" under the DBT STAR College Scheme (Strengthening Component). Around 70 students from B.Sc. II B and 3 faculty members participated, and it was held in Physics Lab. The workshop aimed to provide students with practical exposure to applied electronics and renewable energy. The resource person for the workshop was Mr. Hamed Raza, Senior Engineer at Lumica Electronic Devices & Services.

Objectives:

1. To introduce students to the basics of solar energy conversion and its applications.
2. To provide hands-on experience in designing and assembling a solar-based water level indicator circuit.
3. To familiarize students with electronic components such as diodes, PN junctions, transistors, AC/DC systems, and battery charging.
4. To promote awareness about automation and sustainable technology.

Outcomes:

1. Students gained practical knowledge of circuit design and working principles of a solar-based water level indicator.
2. The hands-on activity enhanced students' skills in handling electronic components and understanding correct polarity connections.
3. Students developed an understanding of the application of solar energy and automation in solving real-world problems.
4. The session inspired students to explore further projects in renewable energy and electronics.

Pictures:



Interactive learning and circuit demonstration by Mr. Hamed Raza



Resource persons, faculty and participants during the workshop session



Students participating in the hands-on circuit assembly



Students engaged in hands-on soldering for circuit assembly

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Field Trip

Date: 11-08- 2026

Time: 08:30 AM - 4:30PM

Brochure:



The Department of Physics organized a Field Visit to the Japal-Rangapur Observatory on August 11, 2026, under the DBT STAR College Strengthening Component. The visit was organized to the Japal-Rangapur Observatory, Rangareddy District, Telangana, where students were guided by the learned faculty members of Osmania University, Dr. D. Shanti Priya and Dr. J. Rukmini. The field trip was attended by 67 students of BSc III B (MPC and MPCs), along with 3 staff members. The students showed keen interest and actively interacted during the visit. The field visit was a valuable educational experience that enhanced their understanding of observational astronomy, encouraged scientific curiosity, and motivated them to explore higher studies and research opportunities in physics and astronomy.

Objectives:

1. To enhance students' understanding of observational astronomy by providing practical exposure to astronomical observations, observational techniques, and the application of physics in astronomy.

2. To familiarize students with astronomical instruments and their applications, particularly optical and radio telescopes, and to develop an understanding of their components, working principles, evolution, and role in the study of celestial objects.

3. To provide hands-on exposure to astronomical research facilities by introducing students to the 48-inch (1.2 m) primary reflector optical telescope, 12-inch Meade reflector telescopes used for training and outreach, and the 10-feet radio telescope operating at 10 GHz, thereby encouraging scientific curiosity and interest in higher studies and research in physics and astronomy.

Outcomes:

1. Participants gained practical knowledge of observational astronomy, developing a better understanding of astronomical observations, observational techniques, and the application of concepts from optics and electromagnetism in astronomical research.
2. The field visit enhanced participants' understanding of astronomical instruments, particularly optical and radio telescopes, including their components, working principles, and applications in observing and detecting signals from celestial objects.
3. The interactive exposure to the observatory and its facilities strengthened students' scientific curiosity and interest in astronomy, helping them connect classroom concepts with practical applications.

Pictures:



Students, Staff and Resource Persons during the Field Visit



Students learning about the various astronomical instruments



Dr. J. Rukmini explaining the 12-inch Meade reflector telescope



Dr. D. Shanti Priya engaging the students on the 10-feet radio telescope, operating at 10 GHz





Department of Astronomy conducted another session of Astronomy Outreach at Nizamia and Japal-Rangapur Observatory on 11th August 2026. Sixty seven final year undergraduate students (MPC, MPCS) along with teaching staff from St. Francis College for Women, Begumpet participated in the outreach session. The program was handled by Prof. D. Shanti Priya & Dr. J. Rukmini along with Dr. Vinay and the staff at JRO.

Post by Japal-Rangapur Observatory

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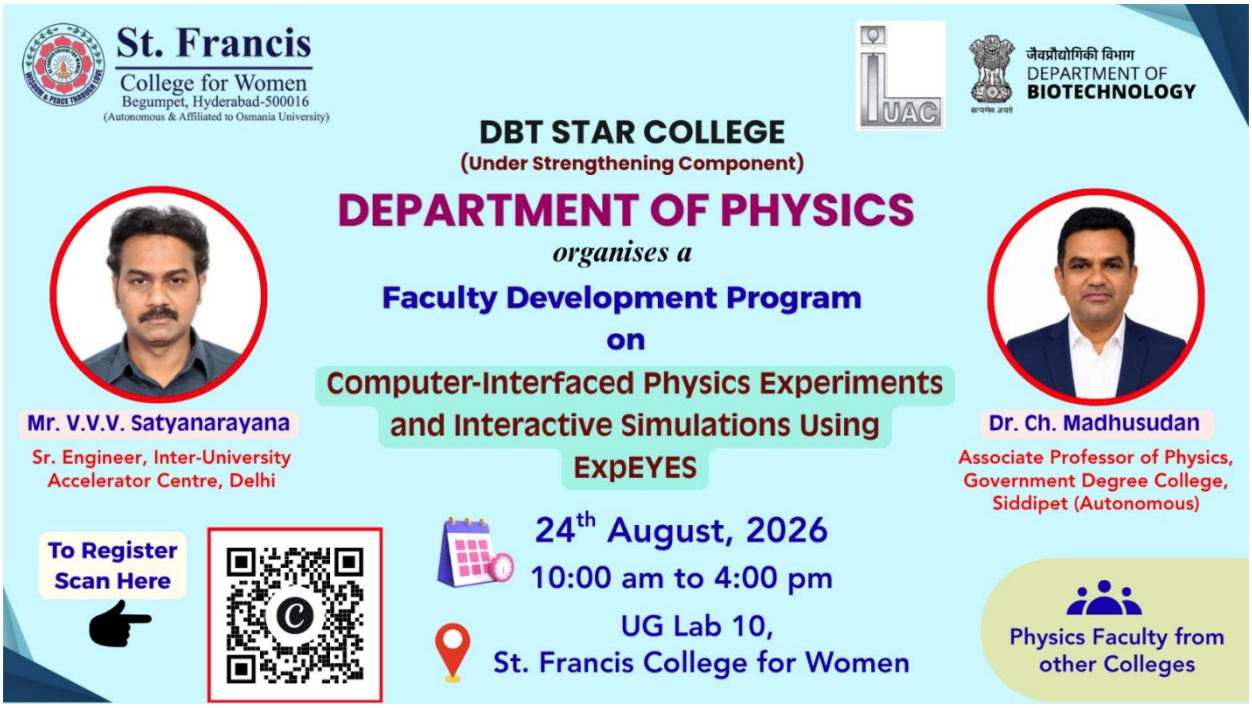
Faculty Training Programme

Title: Computer-Interfaced Physics Experiments and Interactive Simulations Using Exp EYES

Date: 24-08-2026

Time: 10:00 AM - 4:00PM

Brochure:



The Department of Physics, St. Francis College for Women, Begumpet, Hyderabad, under the DBT STAR College (Strengthening Component), organized a one-day Faculty Development Program (FDP) on "Computer-Interfaced Physics Experiments and Interactive Simulations Using ExpEYES" on 24th August 2026 at UG Lab 10. The programme was attended by 34 Physics faculty members from various colleges and institutes. The resource persons were Mr. V. V. V. Satyanarayana, Senior Engineer, Inter-University Accelerator Centre, New Delhi, and Dr. Ch. Madhusudan, Associate Professor of Physics, Government Degree College, Siddipet (Autonomous).

The programme provided hands-on exposure to ExpEYES (Experiments for Young Engineers and Scientists), demonstrating the use of computer interfaces, sensors, real-

time data acquisition, interactive simulations, and graphical analysis in Physics experiments. Activities involving piezoelectric crystal response, Faraday's law of electromagnetic induction, and other concepts illustrated the effective integration of technology with conventional experimentation. The FDP equipped faculty with practical strategies to enhance laboratory-based, interactive, and inquiry-driven Physics education.

Objectives:

1. To familiarize Physics faculty with modern, technology-enabled approaches to experimental Physics by introducing computer-interfaced experiments, real-time data acquisition, sensors, and interactive simulations using Exp EYES.
2. To provide hands-on exposure to Exp EYES and its applications in the acquisition, visualization, and analysis of experimental data, with emphasis on connecting theoretical Physics concepts with practical and computer-assisted measurements.
3. To equip faculty members with innovative strategies for enhancing laboratory-based teaching through experimentation, simulation, graphical analysis, and inquiry-driven learning, thereby encouraging the effective integration of technology into Physics education.

Outcomes:

1. Participants gained practical knowledge of computer-interfaced Physics experimentation and developed an understanding of how Exp EYES can be used for real-time data acquisition, visualization, and analysis in laboratory-based learning.
2. The hands-on sessions enhanced participants' understanding of the application of Exp EYES to various Physics experiments, enabling them to connect theoretical concepts with direct experimental observations and computer-assisted measurements.
3. The FDP equipped faculty members with practical approaches for integrating experimentation, simulations, and graphical analysis into Physics teaching, thereby promoting more visual, engaging, and inquiry-driven laboratory learning.

Pictures:







Feedback Link:

https://docs.google.com/spreadsheets/d/1rpz8dL3bwbS5NBFOXYM3J1rlbHH6HL6Lr4oalCSaWRc/edit?usp=sharing

Hands on Training

Title: "3D Printing & Additive Manufacturing"

Date: 31-08-2026

Time: 8:30 AM-4:00 PM

Brochure:



The Department of Physics organized a hands-on workshop on "3D Printing & Additive Manufacturing" under the DBT STAR College Scheme (Strengthening Component) in association with Physitech Electronics, Hyderabad for B.Sc. IIIB students.

Around 50 students participated, gaining practical exposure to digital designing, 3D printing, and the conversion of digital models and designs into physical objects.

The workshop provided an enriching learning experience through theoretical concepts, demonstrations, and hands-on activities. It enhanced the students' technical knowledge, practical skills, creativity, and understanding of additive manufacturing, while encouraging them to explore innovative applications of 3D printing.

Objectives:

1. To introduce students to the basic principles and concepts of 3D printing and additive manufacturing.

2. To provide students with hands-on experience in understanding and operating 3D printing technology.

3. To familiarize students with the process of converting digital designs into three-dimensional physical objects.

4. To create awareness about the applications of 3D printing in various fields.

Outcomes:

1. Students gained a clear understanding of the working principles and applications of 3D printing.

2. The hands-on activities enhanced their practical knowledge of additive manufacturing and 3D printing processes.

3. Students gained exposure to the process of digital modelling, slicing, and layer-by-layer fabrication.

4. The workshop encouraged students to explore creativity, innovation, and practical applications of emerging technologies.

Pictures:



Students engaged in the hands-on workshop



Resource persons guiding the students about 3D printing



3D Printer used in the workshop



3D printed object printed during the hands-on workshop

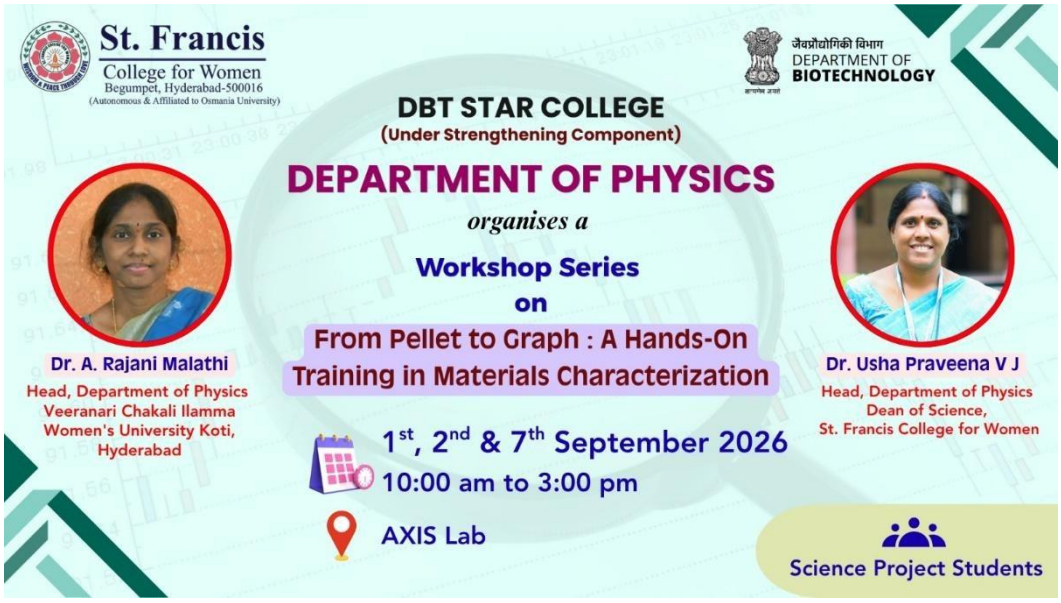
WORKSHOP SERIES

Title: "From Pellet to Graph: A Hands-On Training in Materials Characterization"

Dates: 01,02 &07.09.2026

Time: 10:30 AM – 3:10 PM

Brochure:



The Department of Physics under the organised a three-day workshop series titled "From Pellet to Graph: A Hands-On Training in Materials Characterization" under DBT STAR College Scheme (Strengthening Component) for Science project students and also for the students from Government degree College, Malkajgiri in the AXIS lab.

Around 60 students and 3 faculty members participated. The resource persons were Dr. A. Rajani Malathi, Head, Department of Physics, Veeranari Chakali Ilamma Women's University, Koti, Hyderabad and Dr. Usha Praveena V J, Head, Department of Physics & Dean of Science, St. Francis College for Women.

Objectives:

1. To provide students with hands-on training in materials characterization.
2. To familiarise students with sample preparation and pelletisation techniques.
3. To develop skills in experimental data acquisition and graphical representation.
4. To promote experiential learning and research-oriented scientific thinking.

Outcomes:

1. The hands-on activity enhanced students' skills in handling samples for experimental studies.
2. Students developed an understanding of acquiring and analysing experimental data.
3. Gained understanding in the basic principles of materials characterization.
4. Generate and interpret graphs obtained from experimental measurements.

Pictures:



Students engaged in the hands-on workshop.



Students showcasing their pellets



Data acquisition demonstration by Dr.A.Rajani Malathi & Dr.Usha Praveena

Feedback Link:

https://docs.google.com/spreadsheets/d/10MGzuxxG9NyZ_JbG8UvEQoxSkSD3EdRQB5k7hx5D9L8/edit?usp=sharing

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DEPARTMENT OF ZOOLOGY

SL.NO	DATE	ACTIVITY
1	23rd & 24th July, 2026	Two -Day Workshop on "Culturing Cells: A Comprehensive Workshop on Animal Cell Culture"
2	18th August 2026	FIELD VISIT to Winning Fins for "Experiential Learning in Animal Husbandry and Aquaculture Practices"
3	19th August, 2026	Industrial visit to CDFD Centre for DNA Fingerprinting and Diagnostics
4	24th August 2026	One day Hands-on training on "Nutrigenomics Unlocked: A Hands-on Workshop on Molecular Biology Techniques"
5	5th September, 2026	Field visit to Apiculture Technology Centre for "Exploring Beekeeping Entrepreneurship"
6	7th September, 2026	Guest Lecture on "Citizen Science and Science Communication"
7	9th to 11th September, 2026.	International Multidisciplinary Conference on "Emerging technologies, Humanities and Sciences: Pathways to Global sustainability "(ICETHS'26)
8	15th September, 2026	Guest Lecture on "Insect Pest Management (IPM): The sustainable Strategy"
9	16th September, 2026	ONE-DAY WORKSHOP "Insect Preservation for Museum Collections: Methods and Techniques"
10	18th September, 2026	workshop on "Aquaponic Essentials: Operation & Live Demonstration"
11	21st September, 2026	Outreach Program on "Exploring Zoology: A Hands-on Workshop in Experimental Techniques for Intermediate Students"

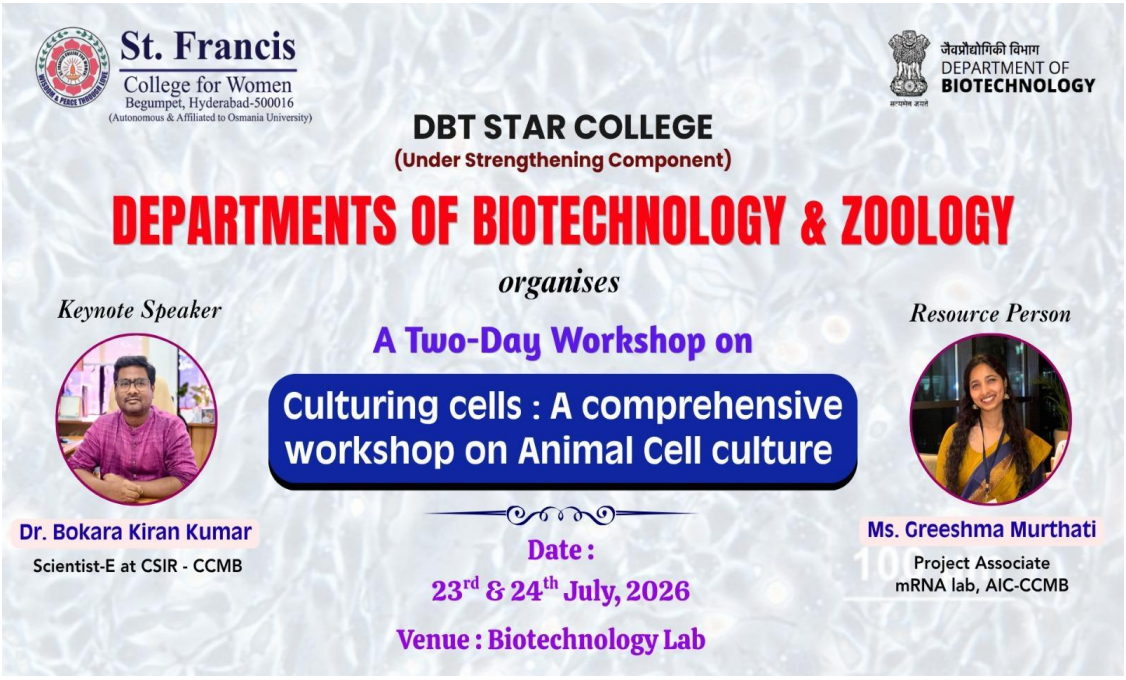
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A Report on Two -Day Workshop on

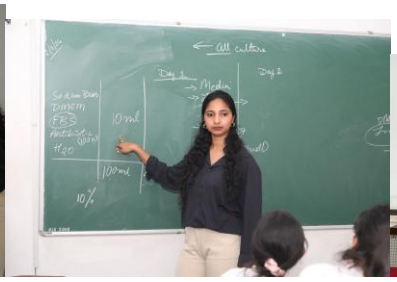
"Culturing Cells: A Comprehensive Workshop on Animal Cell Culture"

The Departments of Zoology and Biotechnology, together organised a Two- day workshop on "Culturing Cells: A Comprehensive Workshop on Animal Cell Culture" under the DBT STAR College – Strengthening Component at St. Francis College for Women. The keynote speaker Dr. Bokara Kiran Kumar, Scientist-E, CSIR-CCMB, and resource persons Ms. Greeshma Murthati, Project Associate, mRNA Lab, AIC-CCMB, and Ms. Keerthana, Project Scientist, CSIR-IICT, shared their expertise on the principles and practical applications of animal cell culture, providing participants with beneficial insights and inspiring them to explore advancements in cell culture technologies and biomedical research. The workshop was organised on 23rd & 24th July, 2026 in the Biotechnology Laboratory, around 25 B.Sc. Final year students and 7 faculty benefitted..











Learning Objective:

To equip students with **conceptual understanding and practical skills** in animal cell culture techniques, fostering competence in handling, maintaining, and applying cultured cells for research and biotechnology.

Learning Outcomes:

By the end of the workshop, students will be able to:

1. Explain the principles of animal cell culture and its applications in biotechnology, medicine, and research.
2. Demonstrate aseptic techniques for handling and maintaining cell cultures in laboratory settings.
3. Identify the requirements for cell growth, including media composition, environmental conditions, and contamination control.
4. Perform basic procedures such as cell seeding, sub-culturing, and viability assessment.
5. Evaluate the role of cell culture in advancing diagnostics, drug development, and genetic research.

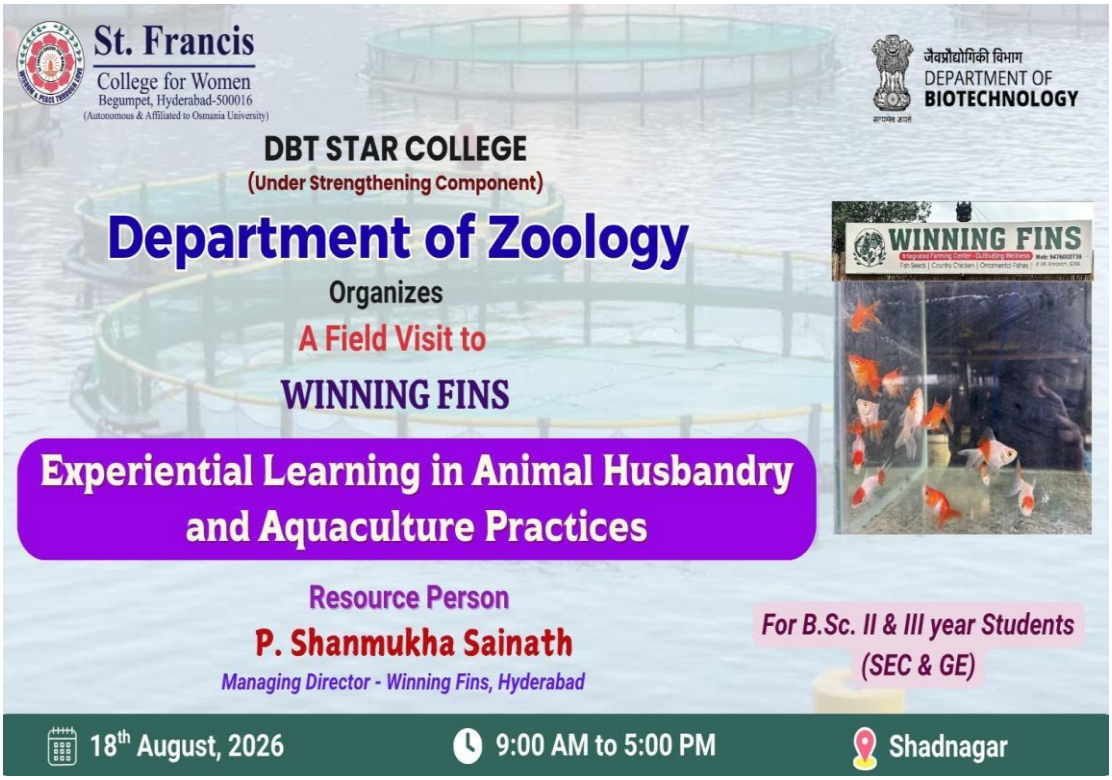
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REPORT ON FIELD VISIT

Experiential Learning in Animal Husbandry and Aquaculture Practices

The Department of Zoology, St. Francis College for Women, Hyderabad, organized a field visit to Winning Fins, Shadnagar, on 18 August 2026 under the DBT STAR College Programme – Strengthening Component. The field visit was organized with the objective of providing students with hands-on exposure to various practices in animal husbandry, aquaculture and integrated farming systems. 24 students with one faculty benefited with this field trip.











Learning Objectives:

To provide experiential learning in animal husbandry and aquaculture by familiarizing students with poultry, duck, and goat farming, introducing aquaculture and fish management, demonstrating aquaponics, explaining vegetable–fish integration, and fostering awareness of sustainable, resource-efficient, and entrepreneurial farming systems.

Learning Outcomes

After the field visit, students were able to:

- Describe basic management practices in poultry, duck, and goat farming.
- Understand principles of fish culture and aquaculture management.
- Recognize the integration of fish culture with vegetable production.
- Appreciate nutrient recycling in sustainable farming.
- Identify the importance of integrated farming systems for resource efficiency.
- Relate Zoology, animal husbandry, and ecology to practical applications.
- Develop awareness of entrepreneurial opportunities in animal husbandry and aquaculture.

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A Report on Industrial visit to CDFD

Centre for DNA Fingerprinting and Diagnostics

The Department of Zoology organised an Industrial visit for the students of BSc III A & III N to the Centre for DNA Fingerprinting and Diagnostics (CDFD), one of the premier research institutions located at Uppal in Hyderabad. Dr. Varsha Srivastava, Senior Scientist and Head of the Science Communication Division, explained the activities of the institute. This exposure enhanced students' academic learning and provided useful insights into advanced research methodologies and laboratory practices. 52 students and one faculty benefited from this event.













Learning Objective:

To provide students with experiential exposure to **DNA fingerprinting and diagnostic techniques**, bridging classroom knowledge with real-world applications in molecular biology and biotechnology.

Learning Outcomes:

By the end of the visit, students will be able to:

- Describe the principles and applications of DNA fingerprinting in diagnostics, forensics, and research.
- Observe and understand the workflow of molecular diagnostic laboratories, including sample preparation and analysis.
- Relate theoretical concepts of genetics and molecular biology to practical techniques used in DNA fingerprinting.
- Recognize the role of advanced biotechnology institutions like CDFD in promoting research, innovation, and healthcare solutions.
- Develop awareness of career opportunities and interdisciplinary applications of DNA diagnostics in zoology, medicine, and biotechnology.

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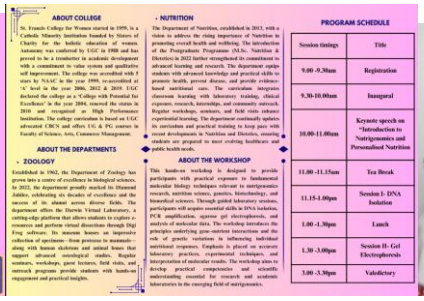
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A Report on one day Hands-on training on "Nutrigenomics Unlocked: A Hands-on Workshop on Molecular Biology Techniques"

The Departments of Zoology and Nutrition, together organised one day workshop on "Nutrigenomics Unlocked: A Hands-on Workshop on Molecular Biology Techniques," under the DBT STAR College – Strengthening Component at St. Francis College for Women. The workshop was organised on 24 August 2026 in the Zoology Laboratory, with B.Sc. IIIN (ANZC) 30 students as participants.



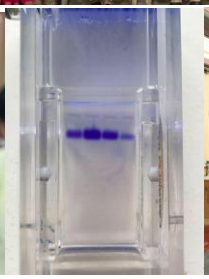














Program Objective:

- Introduce participants to nutrigenomics and its role in personalized nutrition through hands-on training in DNA isolation, PCR, and gel electrophoresis. The workshop bridges theory with practice to foster curiosity, precision, and interdisciplinary awareness, equipping students with skills for research, entrepreneurship, and career readiness in biotechnology, nutrition, and biomedical sciences.

Learning Outcomes:

By the end of the workshop, participants will be able to:

- Perform DNA isolation and agarose gel electrophoresis with proficiency.
- Grasp gene–nutrient interactions and their health implications.
- Apply molecular biology methods to study genetic variations in nutrition.
- Accurately interpret experimental results within nutrigenomics.
- Gain confidence in basic molecular biology experiments for advanced study and research.
- Appreciate the integration of nutrition, genetics, and biotechnology in addressing health challenges.

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A Report on Field visit to Apiculture Technology Centre

"Exploring Beekeeping Entrepreneurship"

The Department of Zoology organized a field visit to Apiculture Technology centre, located at Rajendranagar, Hyderabad under DBT STAR COLLEGE (Strengthening Component) Exploring Beekeeping Entrepreneurship for B. Sc IA and I N students. Around 50 students and 1 faculty member. The resource person for the event was Mr. Ravindra Kumar Pydi, Director, Apiculture technology Centre (BEE KEEPING), Bee House, Professor Jaya Shankar, Telangana State Agricultural University, Rajendranagar, Hyderabad - 500 030, Telangana, INDIA.







Learning Objective:

To provide students with hands-on exposure to apiculture technology by understanding honeybee biology and ecology, exploring entrepreneurial opportunities in beekeeping, practicing hive management and honey extraction, and highlighting the role of bees in pollination, biodiversity conservation, and sustainable livelihoods.

Learning Outcomes:

By the end of the visit, students will be able to:

- Demonstrate knowledge of modern beekeeping practices and technologies.
- Identify different bee species, hive structures, and stages of colony development.
- Explain the economic and ecological significance of apiculture.
- Recognize challenges in beekeeping such as pests, diseases, and climate factors, along with management strategies.
- Appreciate beekeeping as a viable entrepreneurial venture, integrating zoological knowledge with practical skill development.
- Develop a sense of scientific curiosity and applied learning, bridging theory with real-world practice.

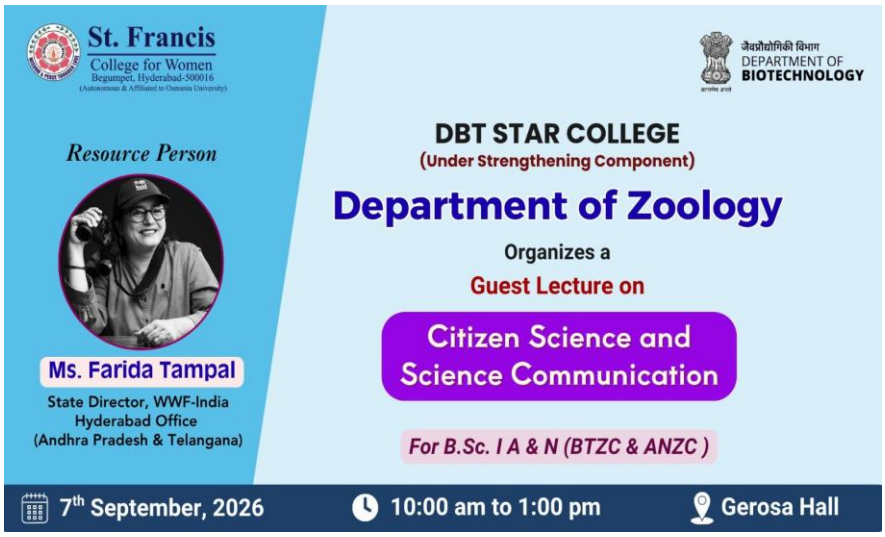
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A Report on Guest Lecture on

"Citizen Science and Science Communication"

The Department of Zoology organized a guest lecture on the topic "**Citizen Science and Science Communication"** under DBT STAR COLLEGE (Strengthening Component) for the students of I year, BTZC & ANZC. Around 63 students and 3 faculty members participated. The resource person for the event was Ms Farida Tampal, State Director, WWF- India, Hyderabad Office (Andhra Pradesh & Telangana)













Learning Objective:

The objectives were to introduce students to Citizen Science and Science Communication, emphasizing public participation in research and environmental monitoring, effective communication for awareness and engagement, real-world applications in biodiversity and conservation, and opportunities for involvement in outreach activities.

Learning Outcomes:

- Students can explain the significance of Citizen Science and Science Communication, identify different ways in which citizens can contribute to scientific research and data generation.
- Recognize the importance of public participation, collaboration, open sharing of scientific knowledge and applications of Citizen Science in biodiversity conservation, environmental monitoring, and community-based research.
- Develop an appreciation for the role of science communication in promoting scientific literacy, environmental responsibility, and evidence-based decision-making.

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A Report on International Multidisciplinary Conference on "Emerging technologies, Humanities and Sciences: Pathways to Global sustainability " (ICETHS'26)

The Research cell of St. Francis College For Women organised an InternationalMultidisciplinary Conference on"Emerging technologies, Humanities and Sciences: Pathways to Global sustainability " (ICETHS'26) from 9th to 11th September, 2026. Dr. Jyothi Rani HoD department of Zoology and Dr. Vidya Jayaram, Associate Professor, Department of Zoology presented a paper on "Mental Health and Nutrition: Exploring the Connection" A Structured Narrative Review and Case-Study Synthesis.







Learning objectives:

To foster interdisciplinary dialogue and knowledge exchange on emerging technologies, humanities, and sciences, with a focus on innovative pathways that advance global sustainability.

1. to explain the relationship between nutrition and mental health.
2. to describe the biological pathways through which diet may influence brain function.
3. to review the evidence for dietary patterns and selected nutrients.

Learning Outcomes:

By the end of the conference, participants will be able to:

1. Recognize the role of interdisciplinary collaboration in addressing sustainability challenges across science, technology, and humanities.
2. Analyze innovative approaches and research contributions that support the United Nations Sustainable Development Goals (SDGs).
3. Apply insights from diverse disciplines to design strategies and solutions that promote sustainable development in local and global contexts.

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A Report on Guest Lecture on

"Insect Pest Management (IPM): The sustainable Strategy"

The Department of Zoology organized a guest lecture on the topic "**Insect Pest Management (IPM): The sustainable Strategy"** under DBT STAR COLLEGE (Strengthening Component) for the students of III year, GE (BTZC, ANZC, BTMBC, BTBCC & ANBC) Around 30 students and 2 faculty members participated. The resource person for the event was Dr S. Naga Manju, Assistant Professor, Department of Genetics & Biotechnology, Bhavans Vivekananda College, Sainikpuri, Secunderabad.








Learning Objective:

To introduce students to the principles and importance of Integrated Pest Management (IPM), familiarize them with diverse strategies and eco-friendly techniques, promote responsible insecticide use, and enable application of IPM in sustainable agriculture, horticulture, and environmental management while minimizing risks to health and environment.

Learning Outcomes:

- Identify major insect pests and understand their impact on agricultural production.
- To understand and differentiate various IPM components and control methods
- Appreciate the role of IPM in reducing pesticide dependence, protecting biodiversity and beneficial organisms, and promoting sustainable agriculture.
- Develop an awareness of practical approaches for implementing environmentally responsible pest-management programmes.

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A REPORT ON ONE-DAY WORKSHOP

"Insect Preservation for Museum Collections: Methods and Techniques"

The Department of Zoology, St. Francis College for Women, Begumpet, organised a one-day hands-on workshop on "Insect Preservation for Museum Collections: Methods and Techniques" on 16th September 2026 under the DBT STAR College Strengthening Component. The workshop was organised with the objective of providing students with practical exposure to the scientific methods involved in collecting, preserving, mounting and maintaining insect specimens for zoological museum collections.60 students of B.Sc Ist year along with 3 faculty benefitted with this program.













Learning Objective:

The workshop aimed to equip students with practical skills in insect collection, preservation, and museum documentation while fostering awareness of their role in taxonomy, biodiversity studies, teaching, and research.

Learning Outcomes:

At the end of the programme, students were able to:

1. Understand the importance of insect collections in zoological museums.
2. Recognise the basic requirements and materials used for insect preservation.
3. Understand different methods of preparing insects for permanent museum collections.
4. Gain practical experience in insect pinning, spreading and mounting.
5. Appreciate the importance of proper positioning and labelling of specimens.
6. Understand the relevance of preserved specimens in taxonomy, biodiversity documentation and research.
7. Develop greater interest in entomology and museum-based learning.

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A Report on workshop on
"Aquaponic Essentials: Operation & Live Demonstration"

The Department of Zoology organised a one-day workshop on "Aquaponic Essentials: Operation & Live Demonstration" under the DBT Star College Strengthening Component, for students of BSc II A (BZC) to provide practical exposure to the principles, operation, and applications of aquaponics. The resource person was Mr. P. Shanmukha Sainath, Managing Director, Winning Fins Integrated Farming Center – Cultivating Wellness. A key component of the programme was the live demonstration, which allowed students to observe the operation of the aquaponic setup and understand the practical application of the concepts discussed during the session. 20 students and 3 staff benefitted.















Learning Objective:

To provide students with experiential knowledge of aquaponics by demonstrating its principles, operation, and integration of fish culture with plant cultivation for sustainable farming.

Learning Outcomes:

By the end of the workshop, students will be able to:

- Explain the basic principles and functioning of aquaponics systems.
- Understanding of the integration of aquaculture and hydroponics for resource-efficient farming.
- Identify the nutrient recycling process and its role in sustainability.
- Recognize the economic and entrepreneurial potential of aquaponics in agriculture.
- Relate aquaponics to biodiversity conservation, food security, and eco-friendly farming practices.

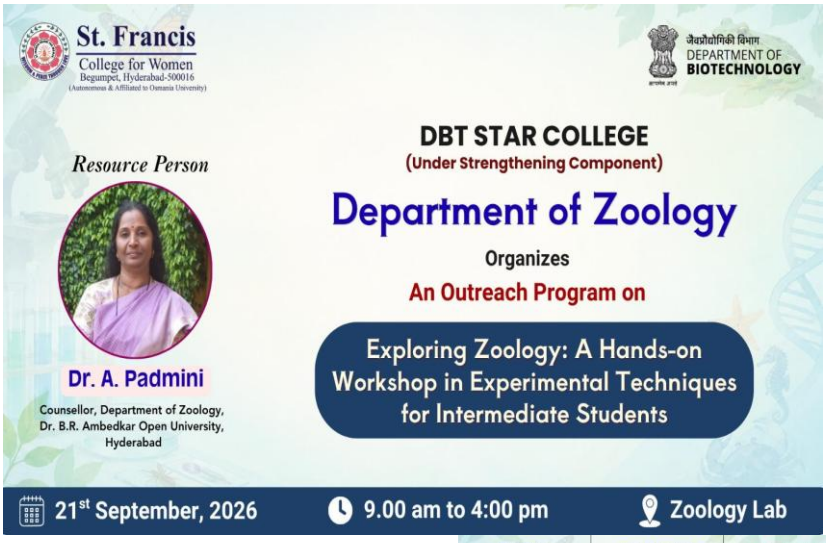
St. Francis College for Women
Begumpet, Hyderabad-500016
(Autonomous & Affiliated to Osmania University)

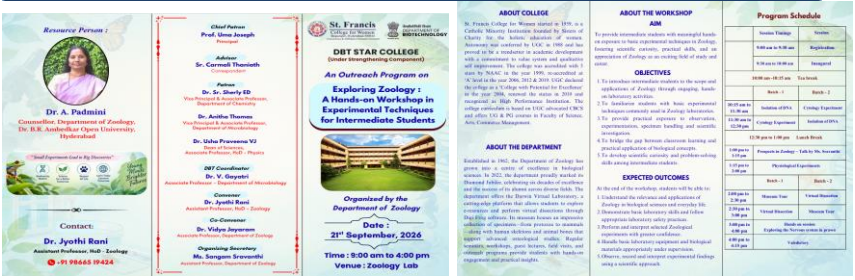
जैवप्रौद्योगिकी विभाग
DEPARTMENT OF BIOTECHNOLOGY

A Report on Outreach Program on

"Exploring Zoology: A Hands-on Workshop in Experimental Techniques for Intermediate Students"

The Department of zoology organized an Outreach program for the Intermediate college students on 21st Sep, 2026 from 9am to 4pm in the zoology lab on the topic "Exploring Zoology: A Hands-on Workshop in Experimental Techniques for Intermediate Students". Around 30 students participated in the event. The Resource person was Dr. A Padmini, Counsellor, Department of Zoology, Dr. B. R Ambedkar Open University. This program is designed to spark scientific curiosity and provide practical exposure to experimental techniques in Zoology. Students will gain confidence in laboratory skills, understand the relevance of Zoology in everyday life, and discover exciting career prospects in the biological sciences.










Learning Objective:

To provide intermediate students with hands-on exposure to basic experimental techniques in Zoology, fostering scientific curiosity, practical skills, and appreciation of the subject as a field of study and career.

Learning Outcomes:

By the end of the workshop, students will be able to:

1. Understand the relevance and applications of Zoology in biological sciences and everyday life.
2. Demonstrate basic laboratory skills while following appropriate safety practices.
3. Perform and interpret selected Zoological experiments with confidence.
4. Handle laboratory equipment and biological materials appropriately under supervision.
5. Observe, record, and interpret experimental findings using a scientific approach.

DBT Consolidated Report 2026-27

List of events organised

S. No.	Date	Event	Objectives	Outcomes	No. of students
1.	10.07.2026	Workshop titled "HANDS ON PATENT SEARCHING" - Faculty Improvement Program	To learn how to use classification codes to find existing literature and verify the novelty of a chemical invention.	By the end of the session, faculty will be better equipped to independently screen their own research ideas, and draft more comprehensive project proposals.	35
2.	17.07.2026	Guest Lecture on Chemistry Career Compass: Explore, Evaluate, Excel	To learn how to use classification codes to find existing literature and verify the novelty of a chemical invention.	By the end of the session, faculty will be better equipped to independently screen their own research ideas, and draft more comprehensive project proposals.	120
3.	22.7.2026	Industrial visit Central Institute of Petrochemicals engineering and Technology (CIPET)	To provide students with practical exposure to polymer and plastics technology.	Students gained practical knowledge of polymer and plastics technology and industrial manufacturing processes.	45
4.	31.07.2026	Workshop titled "A Nano Revolution in Cosmetics"- Faculty Improvement Program	Increase the effectiveness of skin care ingredients such as vitamins and antioxidants.	Better presentation and absorption of active ingredients into the skin.	13
5.	19.08.2026	Workshop titled "Techniques in Phytochemistry: Plant Extraction, TLC & Column Chromatography"	To introduce students to the principles and techniques of extraction of bioactive compounds from plant materials**,** TLC and Column Chromatography	Students gained practical knowledge of plant extraction and preparation of crude extracts.	60
6.	21.08.2026 - 5.09.2026	Industrial Training Program at YMC School of Chromatography	To understand the fundamental principles of chromatography and separation science.	Understand the basic principles and practical applications of chromatography.	19

7.	25.08.2026	Report on Industrial visit Pochampally Weavers Corporation Society	To familiarize students with traditional handloom weaving processes and techniques used in Pochampally textiles.	Students gained first-hand knowledge of traditional weaving methods and textile production.	48
8.	01.09.2026	Guest Lecture on "From molecules to Flexible Electronics: Chemistry for a Sustainable Future"	To introduce students to the role of chemistry and functional molecules in the development of flexible electronic materials and devices.	Students able to understand how innovative molecular design, sustainable materials, and green chemistry can be used to develop flexible electronic devices while reducing environmental impact, energy consumption, and electronic waste.	75
9.	07.09.2026	Workshopon "No Code AI Chemistry: Hands-On Molecular Design for Beginners"	To introduce beginners to molecular docking and its role in studying ligand–protein interactions.	Participants will be able to prepare ligands and target proteins and perform basic molecular docking.	60
10.	15. 09. 2026	Ozone day celebrations	To create awareness among students about the importance of the ozone layer in protecting life from harmful ultraviolet (UV) radiation.	The celebration encouraged students to develop environmental responsibility and sustainable practices for protecting the atmosphere.	40

Workshops conducted

- **Workshop titled "HANDS ON PATENT SEARCHING" - Faculty Improvement Program**

Date: 28-6-2024

Objectives:

The workshop aims to provide participants with practical knowledge of patent searching and help them understand patent databases, search techniques, keywords, classification codes, patent claims, and prior-art identification.

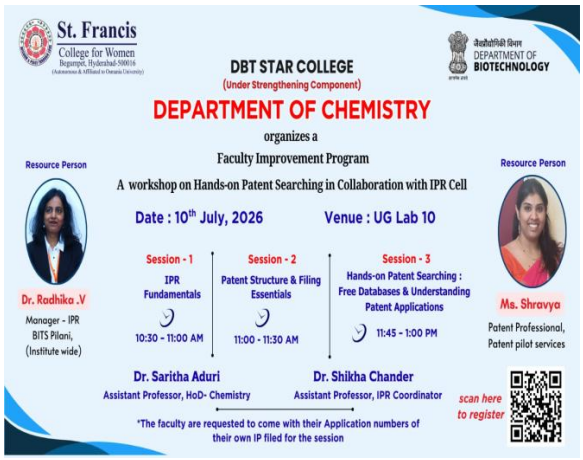
Report:

Dr. Radhika V. introduced the fundamentals of IPR and explained the importance of patents in protecting research and innovation. She also covered the structure of patent documents and the essential steps involved in the patent filing process. The hands-on session by **Ms. Shravya** focuses on patent searching using free patent databases

Outcomes:

By the end of the workshop, participants will be able to conduct effective patent searches using major patent databases, identify and analyze relevant patent documents, trace patent families and citations, and prepare basic patent search results for research and innovation purposes.

No. of Beneficiaries: 35





- **Workshop titled "Techniques in Phytochemistry: Plant Extraction, TLC & Column Chromatography"**

  Date: 19-08-2026

- **Objectives:**

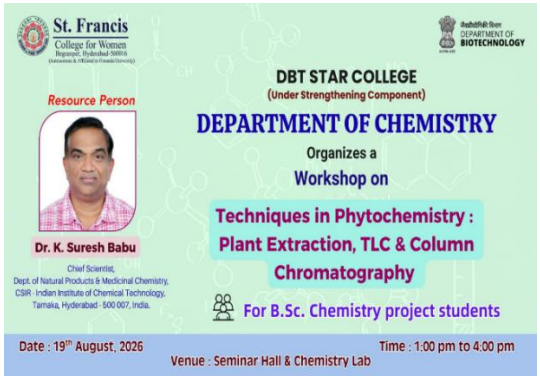
  The workshop aims to provide participants with practical knowledge of phytochemical techniques, including plant sample preparation, extraction of bioactive compounds, thin-layer chromatography (TLC), and column chromatography. It will help participants understand the principles, procedures, and applications of these techniques for the separation and identification of plant constituents.

  Report: The speaker for the workshop was **Dr. Suresh Babu Chief Scientist, Dept. of Natural Products & Medicinal Chemistry, CSIR – Indian Institute of Chemical Technology, tarnaka, Hyderabad.** The programme focused on three important techniques: plant extraction, Thin-Layer Chromatography (TLC), and column chromatography. These techniques enabled students to understand the complete workflow from preparation of plant material to separation and monitoring of individual phytochemical constituents.

Outcome:

The workshop provided participants with practical exposure to plant extraction methods, Thin Layer Chromatography (TLC), and column chromatography. The sessions focused on the isolation, separation, and identification of phytochemicals. The hands-on activities enhanced students' practical skills and understanding of chromatographic techniques and their applications in phytochemical research.

No. of Beneficiaries: 60





- **Workshop on "No Code AI Chemistry: Hands-On Molecular Design for Beginners"**

Date: 07-09-2026

Objectives

The workshop aims to introduce participants to no-code AI tools for chemistry and provide hands-on experience to use beginner-friendly AI tools for molecular design, generate and visualize molecular in molecular design, visualization, and basic chemical analysis without requiring programming knowledge.

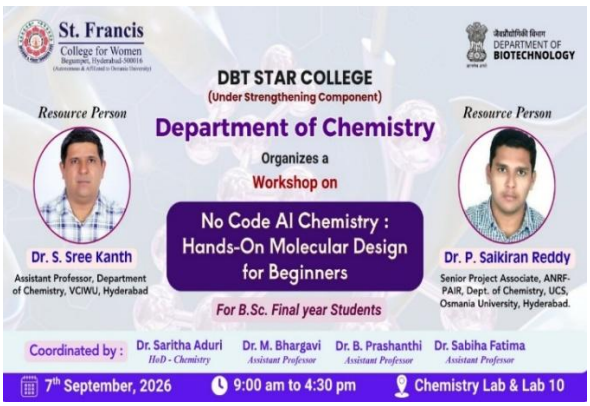
Report:

The workshop was delivered by two resource persons **Dr. S. Sree Kanth Assistant Professor, Department of Chemistry, VCIWU (Veeranari Chakali Ilamma University), Hyderabad** and **Dr. P. Saikiran Reddy Senior Project Associate, ANRF-PAIR, Dept. of Chemistry, UCS, Osmania University, Hyderabad.** The event was organized for 60 selected B.Sc. final year students. Participants will be able to **prepare ligands and target proteins and perform basic molecular docking.** Participants will be able to **interpret docking scores, visualize ligand–protein interactions,** and also **analyze key ADME properties** of selected molecules.

Outcomes

By the end of the workshop, participants will be able to use beginner-friendly AI tools for molecular design, generate and visualize molecular structures, explore chemical properties, and apply AI-assisted approaches to simple chemistry problems and research ideas.

No. of Beneficiaries: 60





Faculty Improvement Program

Date: 31-07-2026

Objectives

The FDP aims to introduce faculty members to the emerging applications of nanotechnology in cosmetics, including nano formulations, nanocarriers, improved delivery systems, and enhanced stability and efficacy of cosmetic ingredients. It will also provide an overview of recent developments, applications, safety considerations, and future trends in nano-cosmetics.

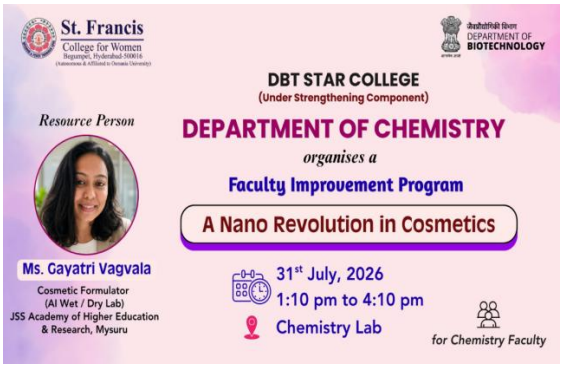
- **Report:**

  The Department of Chemistry organized a workshop under the DBT Star College (Strengthening Component) titled "**A Nano Revolution in Cosmetics"- as a part of the Faculty Improvement Program.** The resource person for the same is **Ms. Gayatri Vagvala Cosmetic Formulator (AI/Wet / dry Labs) JSS Academy of Higher Education & Research, Mysuru.** The event was organised for 13 Chemistry faculty members in the Chemistry lab. The workshop provided valuable insights into the intersection of nanotechnology and cosmetics, and motivated faculty to integrate these advancements into teaching and research. Faculty gained updated knowledge on nano-based delivery systems in cosmetics. Increased awareness about safety evaluation and regulatory compliance. Identified potential areas for student projects and research proposals. Strengthened linkages for future workshops and collaborations with industry experts.

Outcomes

By the end of the FDP, participants will be able to understand the fundamentals of nanotechnology in cosmetics, identify major nano-based cosmetic applications, evaluate their potential benefits and safety aspects, and explore emerging research opportunities for developing innovative nano-cosmetic formulations.

No. of Beneficiaries: 13





- **Industrial Training Programs**

Date: 21-08-2026 to 5-09-2026

Objectives:

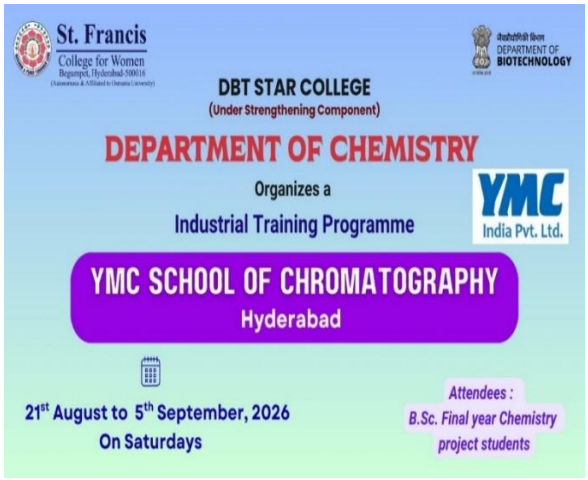
The Industrial Training Program at **YMC School of Chromatography** aims to provide participants with practical knowledge of chromatographic techniques, instrumentation, method development, and their applications in pharmaceutical and chemical analysis.

- **Report: Industrial Training Program at YMC School of Chromatography** to provide practical exposure to analytical techniques such as HPLC, Preparative HPLC, LC-MS, weighing balance calibration. A total of 19 students from B.Sc. final year chemistry project visited YMC. During the program, participants gained hands-on understanding of chromatographic instruments, stationary and mobile phases, sample preparation, separation principles, and interpretation of chromatograms.

Outcomes

By the end of the training, participants will be able to understand and apply key chromatographic techniques, operate and interpret chromatographic systems, develop basic analytical methods, and gain industry-oriented skills relevant to quality control, research, and pharmaceutical analysis.

No. of Beneficiaries: 19





Link for certificates

https://drive.google.com/drive/folders/1GF5Xz4NZXtyZ3yYhASkzrYPPp8FeXmuD?usp=sharing

Invited Guest lectures

Date: 17-07-2026

Objectives

The program aims to help students explore diverse career opportunities in chemistry, understand industry and academic understand relevant career requirements, and develop a clear plan for further education, skill development, and pathways, and develop awareness of the skills, qualifications, and competencies required for different chemistry-related careers.

Report: A Guest Lecture on "Chemistry Career Compass: Explore, Evaluate, Excel" The resource person for the same was **Prof. P. Ramesh, Principal and professor of Chemistry, Nehru Memorial Govt. Degree College, Jogipet, Sangareddy.** The event was organized for 120 students from BSc III B/C/F in Capitanio Hall. A guest was organized to help students understand the diverse career opportunities available in the field of chemistry. The session provided valuable insights into higher education, research, industry, and other professional pathways in chemistry.

Outcomes

By the end of the program, participants will be able to identify suitable career pathways in chemistry, evaluate their interests and skills, understand relevant career requirements, and develop a clear plan for

further education, skill development, and professional growth.

No. of Beneficiaries: 120





- **Guest Lecture on "From molecules to Flexible Electronics: Chemistry for a Sustainable Future"**

Date: 1-09-2026

Objectives

The program aims to introduce participants to the role of chemistry in developing flexible electronic materials and devices, with emphasis on molecular design, functional materials, sustainability, and emerging technologies.

Report: The resource person for the same was **Prof. Chitra Gurnani Head. Department of Chemistry, Ecole Centrale School of Engineering Mahindra University, Hyderabad.** The event was organized for 75 students from BSc III A and N sections in Electronics lab. The lecture emphasized on the importance of **green chemistry, sustainable materials, and reducing electronic waste** in the development of next-generation electronics. Overall, chemistry provides a strong foundation for designing **safer, smarter, and more sustainable flexible electronic technologies.**

Outcomes

By the end of the program, participants will be able to understand the connection between molecular chemistry and flexible electronics, identify key materials and their applications, and appreciate sustainable approaches for designing next-generation electronic devices.

No. of beneficiaries: 75





Field visits conducted

An Industrial Visit to Central Institute of Petrochemicals engineering and Technology (CIPET)

Date: 22-07-2026

Objectives

The industrial visit to **Central Institute of Petrochemicals Engineering & Technology (CIPET)** aims to provide students with practical exposure to polymer, plastics, and petrochemical processing technologies. It will help participants understand industrial manufacturing processes, materials testing, processing equipment, and quality-control practices.

Report

An Industrial Visit to Central Institute of Petrochemicals engineering and Technology (CIPET)

The visit commenced with an interactive session by **Dr. Anjaneya Sharma**, who introduced the fundamentals of polymers, plastics, their classifications, manufacturing processes, and industrial applications. Students actively participated in the session, gaining valuable insights into the role of polymer science in modern industries. Students learned about CIPET's short-term skill development programs that provide technical training and employment opportunities for aspiring students.

Outcomes

By the end of the visit, participants will be able to relate theoretical knowledge to industrial applications, understand basic polymer processing and testing techniques, gain awareness of modern industrial equipment and practices, and develop insight into career opportunities in the petrochemical and polymer industries.

No. of Beneficiaries: 45





- **Industrial visit to Pochampally Weavers Corporation Society**

- **Date: 25-08-2026**

Objectives

The industrial visit to **Pochampally Weavers Corporation Society** aims to provide students with practical exposure to traditional handloom weaving, textile production processes, dyeing techniques, and the role of chemistry in textile materials and coloration. It also helps participants understand the functioning of a traditional weaving industry and its connection with sustainable practices.

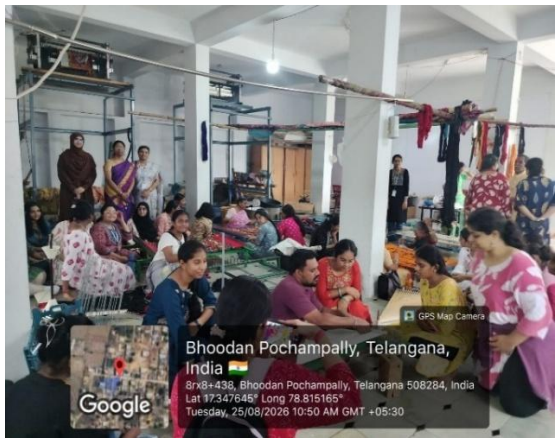
Report: Students gained practical exposure to the traditional handloom and textile industry. Students observed various stages of textile production, including **designing, dyeing, weaving, and finishing** of Pochampally textiles. The visit helped students understand the application of **chemistry in dyes and textile processing** and appreciate the skill and craftsmanship of local weavers. Overall, the visit provided valuable practical knowledge and helped students relate their classroom learning to real-world applications.

Outcomes

By the end of the visit, participants will be able to understand the basic processes involved in handloom textile production, gain practical awareness of dyeing and fabric-finishing techniques, appreciate traditional weaving practices, and recognize the importance of sustainable and indigenous textile industries.

No. of beneficiaries: 45





Ozone day celebration

Date: 15-09-2026

Objectives

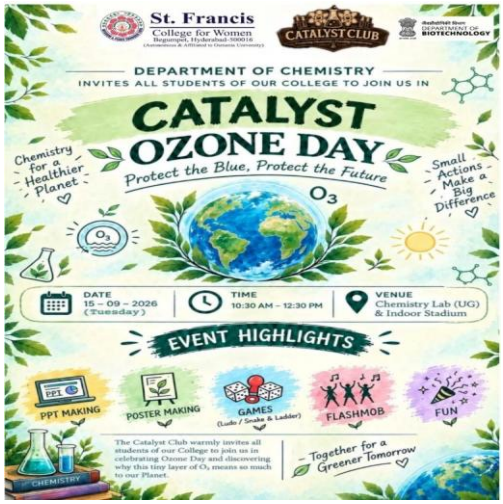
The **Ozone Day Celebration** aims to create awareness among participants about the importance of the ozone layer, the causes and effects of ozone depletion, and the need for protecting the atmosphere. The program also encourages students to understand environmental issues and adopt sustainable practices.

Report: The Catalyst Club of the Department of Chemistry, organized the Ozone Day Celebration on 15th September 2026 at the Indoor Stadium and Chemistry Lab 2, bringing together students from different streams to learn, participate, and celebrate the importance of the ozone layer.

Outcomes

By the end of the program, participants will be able to understand the significance of the ozone layer, identify major causes and impacts of ozone depletion, explain the importance of ozone protection, and promote environmentally responsible practices in their communities.

No. of Beneficiaries: 45





Report on Research Projects

The Department of Chemistry organized Research Projects under DBT STAR COLLEGE (Strengthening Component) for the B.Sc. students of III year (BZC/ BTZC/ MPC/ BTMBC/ BCMBC/ BTBCC/ BCCAC/ ANBC/ ANZC). 75 students have been carrying out their research projects under the supervision of 11 faculty members. To develop research aptitude among undergraduate students by providing hands-on experience in experimental chemistry, data analysis, and scientific problem-solving through diverse chemistry research projects. Research Projects covered a diverse range of topics, including phytochemical extraction and screening of medicinal plants, antioxidant and antimicrobial studies, green synthesis of metal nanoparticles, preparation and characterization of herbal formulations, analysis of water quality and food adulterants, estimation of vitamin C, natural dyes and indicators, adsorption studies for removal of dyes from wastewater, TLC and column chromatographic separation of phytochemicals, and green chemistry-based organic synthesis and computational studies on homology modelling, Virtual screening and Molecular Docking**.** These projects provided students with practical exposure to laboratory techniques, analytical methods, scientific data interpretation, and research methodology, while encouraging creativity, problem-solving, and scientific inquiry.

List of projects Students

https://docs.google.com/spreadsheets/d/18WYCPOv9zttt4mYz-0KidB-6sSKsRA8vLL_reHC_0Nw/edit?usp=sharing

M. [signature]

DBT Coordinator
Dept. of Chemistry, SFC