Proforma for submission of Annual Progress Report supported under Star College Scheme

(Kindly note that the annual report from Point 6 to 10, should not be more than 5 A4 size sheets, with font size 12pt and line spacing 1.5)

1. **Name of the College**: St Francis College for Women

2. **Name of Coordinator, designation, Address, Phone nos.:**

Ms. Savithri
Assistant Professor
Department of Computer Science
St. Francis College for Women
Begumpet, Hyderabad
Ph No: 9966004417

3. **Assessment duration:** 01/03/2025 to 30/03/2026 Duration in years :1yr.

4. **Details of Departments Supported**

S. No	Name of Department	Courses (B.Sc./M.Sc./PG Diploma, certificate etc) offered	Regular Faculty members	
			Total	
			With Ph.D.	Without Ph.D.
1	Computer Science	BSc, BSc SE(H), MSc CS, MSc DS	1	19

5. **Number & Date of Advisory committee meeting:**

6. **Qualitative improvements due to DBT support. Please highlight 5 salient points (within 500 words).**

Workshops: Students worked hands-on with LEDs, IR sensors, LDRs, and servo motors. They learned servo motor soft motion, ultrasonic sensors, ultrasonic sensor integration with servo motors, and the DHT sensor for temperature and humidity. They also explored essential libraries and used the open-source Blynk platform to connect IoT devices with NodeMCU, gaining real-time monitoring experience. Overall, the workshop was highly informative and successfully achieved its objective of enhancing students' understanding of Smart IoT solutions. The workshop improved students' hands-on skills, logical thinking, and confidence in building robotics projects.

Field Trips: The students embarked on an educational excursion to the Indian Space Research Organization. (ISRO/NRSC, Jeedimetla, Hyderabad) to provide insight into the workings of India's premier space research and development agency. To understand the various functions and operations of NRSC, to learn about current and upcoming space programs and to inspire students towards pursuing careers in space science and technology

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

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

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

- **Lessons learnt:**

The department effectively arranged workshops, training and field trip for students, concentrating on key areas in advanced scientific research. Such initiatives have the potential to cultivate a scientific mindset among students.
Incorporating DBT expanded the Department's capacity to enhance its infrastructure with IOT and Robotics Kits. This gave the opportunities to undergraduate students to engage in IOT bases learning which in the coming year can be incorporated in their projects.

- **Difficulties/Suggestions:**

The departments encountered challenges in comprehending the grant scheme procedures but eventually learnt how to utilize the grant appropriately, aligning with the submitted proposal and meeting deadlines.

9.Key performance indicators

	Indicator	**Pre- Support (2024-2025)**			**During Support (2025-2026)**				**Remarks**
1.	No. of students admitted	**Total =1156**			Total = 996				
		Only Females			Only Females				
		ST	OBC	GEN	SC	ST	OBC	GEN	
		28	378	676	88	25	334	549	
2.	No. of student passing out (%) Students Admitted/passing out (pass %)	UG -90%			UG – 96%				
3.	Drop-out rates				4%				
4.	No. of Student opting for M.Sc.	700			700				
5.	Average marks				8.7				
6.	No. of hands-on experiments being conducted	U. G IOT based experiments			Distance measurement obstacle detection Temperature Sensor Monitor, Light Sensor Monitor Programs were worked on by students				Completed
7.	No. of new experiments introduced				NIL				

8.	Publications (Scopus indexed) / patents, if. Any		NIL	
9.	Training received by faculty and student		NIL	
10.	Exhibitions/ seminars / Training courses conducted		2Workshop – 90 students 1 Field trip – 160 students	Completed
11.	Books/journals subscribed from grant		NIL	
12.	Outreach activities – (Popular lectures)		NIL	
13.	College mentored to apply for DBT Star College grants		NIL	
14.	Invited lectures		NIL	

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

Report on the two-day workshop on "Building Smart IoT Solutions" Conducted on November 26th - 28th November 2025.

Time: 9:00 a.m-3:30 p.m.

Brochure:

The Department of **Computer Science** had organized a two-day workshop on **Building smart IOT solutions** on 25th to 28th November 2025. The resource person for the workshop was **Mr. G.N.L. Ravi Teja**, Founder & CEO of Ikkashin Technologies and Consultant for Kalvium, Bangalore. The Workshop was organized for BSC **final year (B, D, E, H**) selected students in CS **lab 7**, Computer Science Department, St. Francis College for Women.

Objectives:

- To provide a comprehensive overview of technologies and platforms in the field of the Internet of Things (IoT). The workshop aimed to provide hands-on experience in building and managing IOT devices, sensors and understanding them better.
- To focus on practical and theoretical knowledge about the Internet of Things (IOT) using IR sensors, LDRs, servo motors and IOT platforms.

Outcomes of the Event:

- Students worked hands-on with LED's, IR sensors, LDRs, and servo motors. They also explored essential libraries and used the open-source Blynk platform to connect IoT devices.
- They learned servo motor soft motion, ultrasonic sensors, ultrasonic sensor integration with servo motors, and the DHT sensor for temperature and humidity.
- Participants gained hands-on experience in building and managing IoT Devices, which will be beneficial for future projects and endeavor in the IoT domain.

Pictures:

Students engaged in the workshop

Students gathered at the end of workshop

Report on the Field Trip to Indian Space Research Organization (ISRO/NRSC, Jeedimetla, Hyderabad) Conducted on 9th December,2025.

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

Brochure:

Department of computer science has organized a visit to Indian **Space Research Organization** on **9th December,2025.** The event was organized for **2nd Year Physical Science** in **National Remote Sensing Center (NRSC), Jeedimetla, Hyderabad**.

Objectives:

- To provide insight into the workings of India’s premier space research and development and with the understanding of the inter workings and operations of NRSC
- To highlight, it's previous achievements as well as current and upcoming space programs, and to inspire students towards pursuing careers in space science and technology.

Outcomes of the Event:

- A comprehensive presentation by the Scientists detailing ISRO's distributed structure, specialized centers, and major achievements like Chandrayaan-3 and the Mars Orbiter Mission (MOM) as well as outlining aspirational projects including the Gaganyaan crewed mission and the joint NASA-ISRO NISAR satellite for Earth observation and natural calamity tracking.
- The students explored exhibits focusing on **satellite testing protocols** and real-time data monitoring. They learnt about the role of specialized software in downlinking, decrypting, and processing satellite data and telemetry.
- Field Trip provided students with a deeper appreciation of the complexities involved in space exploration and the immense dedication
- The field trip concluded with a feedback session, were
- Students Interacted with Scientists of the NRSC team who shared their invaluable knowledge with the participants.

Pictures

The Students and Faculty at ISRO/NRSC

Students gathered for guest lecture at ISRO/NRSC

Report on the Inter College Robotics Workshop Conducted on 6th & 7th March,2026.

Time: 9:00 a.m-3:00 p.m.

Brochure:

The Department of Computer Science, organized C@nnect 8.14 – A Two-Day Inter-College Robotics Workshop on 6th and 7th March 2026, bringing together selected students from various colleges across the twin cities for an immersive hands-on learning experience in robotics. The resource person for the workshop was Mr. Ravi Teja.

Objectives:

- To provide hands-on experience in basic robotics.
    - To understand motor control using L298N and PWM.
- To implement IR line follower and obstacle avoidance robot
- To introduce autonomous navigation using sensors.

Outcomes of the Event:

- Students gained practical exposure to assembling robotic hardware components and understanding their connections.
- Participants learned to control DC motors using the L298N motor driver and understood H-bridge wiring for direction control.
- Students implemented PWM techniques to regulate motor speed efficiently.
- Learners calibrated IR sensors and developed logic for accurate line detection.
- Participants designed and tested a working IR line follower robot capable of following predefined paths.
- Students integrated ultrasonic sensors for distance measurement and obstacle detection.
- Participants used servo motor scanning to improve obstacle detection range.
- Learners developed basic collision avoidance logic for autonomous robot movement.
- Students demonstrated simple autonomous navigation by combining motor control and sensor input.
- The workshop improved students' hands-on skills, logical thinking, and confidence in building robotics projects.

Pictures:

Resource person during the session

Students engaged in the workshop

10.Self-evaluation:

Department	*Objective (as stated in proposal)	% Achieved	Reasons for underachievement / If achieved, state in quantitative metrics
Computer Science	1. Workshops (Completed) 2. Skill Enhancement Courses (Course on IoT was initiated) 3. Industrial Training (Yet to be done)	70%	IoT kits and Robotics kits are used in conducting workshops. Quantitative metrics – 4/5

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

11. Provide detailed information on budget utilization under Grants-in-Aid (General), including the exact percentage of funds allocated and utilized for the purchase of chemicals, travel, mentoring activities, contingency and any other activity:

2025-2026 Budget details:

Sanctioned Budget details:

(Rs. in Lakhs)

Head	Total Released Budget from DBT	Total Expenditure	Balance as on	Remarks if any
Grants for creation of capital assets (Non- recurring)	5,03500	5,03500	NIL	-
Grants-in-aid General (Recurring)	1,50,000/-	1,50,000	NIL	

Savithri

DBT Coordinator