

SFIT BITS-N-BYTES



BITS-N-BYTES

A BI-ANNUAL NEWSLETTER OF
ST. FRANCIS INSTITUTE OF TECHNOLOGY
(VOL 13, ISSUE 2)



ABOUT SFIT

St. Francis Institute of Technology (SFIT) was established in 1999 with a view to create an Engineering Degree Institute to fulfill the long felt public need of an Institute of Excellence in Borivali.

SFIT has five UG Programs and two PG Programs in the most coveted disciplines considering both industrial need and public preference. These courses would lead to award of the Degree of Bachelor of Engineering (B.E.) in Computer Engineering, Electronics & Telecommunication Engineering, Information Technology, Electrical Engineering and Mechanical Engineering and Master of Engineering (M.E.) as well as Ph.D. (Technology) in Computer Engineering and Electronics & Telecommunication Engineering.

✚ VISION

To be a chrysalis where bright youngsters are transformed into technological entrepreneurs and innovative leaders of tomorrow's world, consistent with the Franciscan vision of integrity, peace and love.

✚ MISSION

For UG programme:- "To churn highly competent engineering graduates with a commitment to result oriented work, a perennial zest for learning, a quest for excellence, an open mind and the universal values of honesty, dignity and mutual care."

For PG programme:- "To continually improve and progress in the path of developing post graduate scholars who will be competent in exploring, developing and disseminating new knowledge in their areas of specialisation so that the repository of new knowledge and innovation and its dissemination will be enhanced in scope of effectiveness."



The Emblem or the Logo of the college reflects the basic functions, aims, objects, ideals and aspirations of the Institute. The two hands and the wheel symbolize the transmission of knowledge of the teacher to the student and the relentless quest towards this transmission. The title "Engineering College" indicates the level at which this transmission takes place, as distinguished from other Technical Institutes. It also represents "entrepreneurship", which is the distinctive "vision" of the college; to develop potential job and wealth creators as different from job seekers. Around these is printed the name of the College and the City in which it is situated. Finally the whole wheel is arched by two olive branches that represent 'victory' as well as, 'peace and tranquility'; the essence of the values of the Institute's Patron Saint, St. Francis of Assisi, that the College professes and wishes to impart to its stakeholders.

COURSES OFFERED

Undergraduate Courses (B.E.)

• Computer Engineering	:	180
• Electronics & Telecom Engg.	:	120
• Information Technology	:	120
• Electrical Engineering	:	60
• Mechanical Engineering	:	60

Intake

Post Graduate Courses (M.E.)

• Computer Engineering	:	09
• Electronics & Telecom Engg.	:	18
Ph.D. (Technology)		
• Computer Engineering	:	12
• Electronics & Telecom Engineering	:	15

Intake

Basic Science and Humanities (F.E.)

FE Student Induction Program for Academic Year 2023-24

In accordance with AICTE guidelines mentioned in the SIP handbook, all technical institutions are required to organize a Student Induction Program, with the motive of providing a smooth transition from school to college life and to facilitate the holistic development of students. With this aim, the Department of Basic Science and Humanities of St. Francis Institute of Technology, planned a two-week long Student Induction Program.



SIP Program 2023 was successful in meeting all the aims and objectives set behind it. The positive feedback of our students is a motivation for the department of Basic Science and Humanities to organize more such events in the future. SIP 2023 would not have been possible without the dedicated support and teamwork of the entire FE staff, under the guidance of the HOD, Dr. C. Hariprasad and Asst. HOD, Ms. Grishalda D'souza. As SIP is a semester-long program, it was decided to conduct Library and ERP orientation and Motivational talk or any other session required for students later.

DEPARTMENT OF INFORMATION TECHNOLOGY

VISION:

To create a conducive instrument for transforming the enrolled potential fresher into competent Information Technology professional or entrepreneur with integrity and ethical value.

MISSION:

To become unit of excellence in teaching, training, research, innovative application and extension work in IT in co-operation with various other departments.

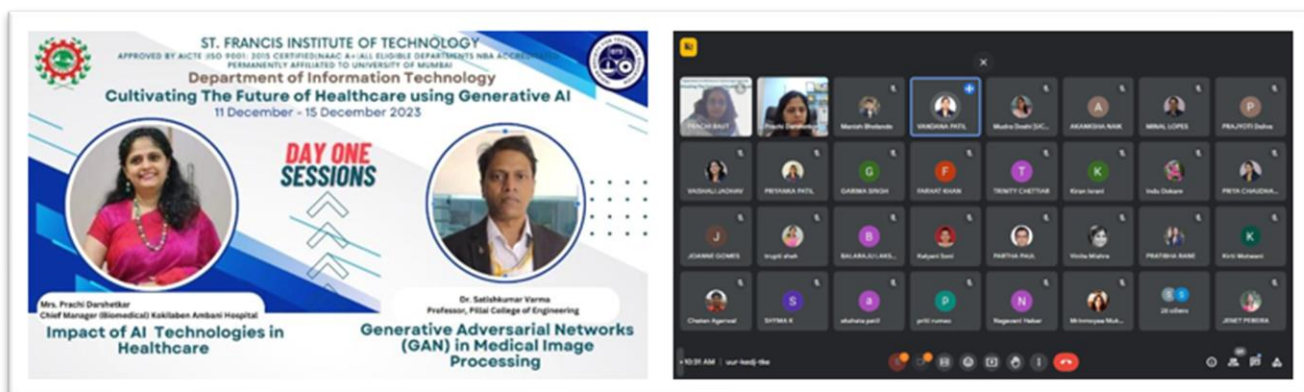
To make knowledge and expertise accessible with various dissemination strategies, including networking with research unit, colleges, government and industry along with the motivation for self-learning.

To integrate teaching, research and practice along with higher education for generation and application of knowledge in line with emerging needs of industry, technical quality with market driven professional pursuits, programs, courses, collaboration.

To develop entrepreneur skills along with ethical and professional values among the students.

ACTIVITIES:

An ISTE Approved STTP (online) was organized by the department of Information Technology from 11th December 2023 to 15th December 2023 on the topic “Cultivating the Future of Healthcare using Generative AI”. Several experts from industry and academia were invited to give talks and conduct hands-on sessions. 78 faculty members from various institutes attended the STTP. Ms. Vandana Patil and Ms. Alvina Alphonso were the coordinators of this STTP.



A 30-hour value added course on “Learning Computer Graphics in the World of AR-VR” was conducted from final year students from 27th June 2023 to 1st July 2023. Ms. Sonali Suryavanshi and

Ms. Pratibha Rane were the coordinators for this event. Hands-on sessions and lectures by experts from industry and academia were included in this VAC.

Dr. Joanne Gomes conducted R and D Series lecture on “ChatGPT for Teachers” for SFIT faculty and staff on 15th July 2023.



Gap addressing seminar for Mini Project: Web Based Business Model was organized for third year students on 5th September 2023. The objective of this seminar was to make the students understand a journey of an entrepreneur who has started tech-business. Mr. Pascal Nunes, an SFIT alumnus and Founder of Punctuations.ai was invited to share his entrepreneurial journey.

For final year students, the department arranged a series of lectures to make them understand the nuances of technical writing (Project report and research paper). These lectures were conducted by Dr. Prachi Raut, Dr. Joanne Gomes, Dr. Nitika Rai, Dr. Vaishali Jadhav, Dr. Minal Lopes and Ms. Amrita Mathur.



Final year students also visited Airport Authority of India facility to understand various communication methods used in air traffic control and operations at the air traffic control on 19th and 20th October 2023. The resource persons were: 1. Mr. Girish H Jt. General Manager (ATM)

2. Mr. Atul Anand Manager (ATM)

3. Ms Yashasvi Mehta, Assistant manager (ATM)

4. Mr. Rahul Daware, Assistant manager (ATM)

Publications:

INFT department faculty and students published total 15 research papers and authored 3 book chapters.

Achievements

- Troubleshooter.io – SFIT’s team comprising four INFT department students Gaurav Prajapati, Janhavi Ingle, Geeta Medtiya and Ninad Kangadul won prize of 1 Lakh Rupees for Smart India Hackathon 2023 on 19th December 2023.
- Ms. Mrinmoyee Mukherjee, Dr. Prachi Raut and Dr. Minal Lopes won first prize at YOGDAAN: Innovative and Best Teaching Pedagogy Presentation Competition organized by IEEE-GRSS at the Thakur College of Engineering, Mumbai on 6th December 2023
- Mr. Rushikesh Borakhede, Mr. Gauresh Wadekar from BE INFT and Ms. Geeta Jain from TE INFT were part of RAW team which won first prize at the Robozone competition organized during MOSAIC 2023 on 16th September 2023
- Mr. Rahul Avhad, Mr. Shashank Paria and Mr. Gaurav Yadav BE INFT students received first prize at the hackathon organized by Neebal Technologies at Powai, Mumbai on 11th September 2023
- Dr. Vaishali Jadhav received an approval as a PhD guide in Computer Engineering from Mumbai University in August 2023

DEPARTMENT OF COMPUTER ENGINEERING

VISION

The vision of the Computer Engineering program at SFIT is to continuously improve its educational environment to nurture future technological entrepreneurs and researchers, with strong emphasis on ethics and professional code of conduct.

DEPARTMENT MISSION

To produce quality Computer Engineering professionals nourished by entrepreneurial and industrial skills having a sense of social awareness and responsibility.

To inculcate amongst the graduates a knack of critical thinking, leading to generation of new knowledge and its dissemination.

To imbibe lifelong learning and research aptitude leading to innovative research and development.



Many Congratulations to Dr. Kavita Sonawane,

Head of Department for being awarded the “Most Influential Professor” Award at World Education Congress 2023 on 13th July 2023.



Congratulations to Dr. Kavita Sonawane,

Head of Department awarded as “Most Influential Professor” in Dewang Mehta National Leadership Awards on 24th November 2023



Congratulations!

Prof. Bidisha Roy successfully completed her Ph.D. on 8th Dec 2023.

Research Topic: Meta Heuristic Techniques to solve NP-Hard Resource Constrained Project Scheduling Problem

Guide: Dr. A.K. Sen



Congratulations!

Prof. Dakshata Panchal successfully completed her Ph.D. on 22nd Dec 2023.

Research Topic : Free Form Surface Transformation

Guide: Dr. Deepak Jayaswal

TEACHING FACULTY ACCOMPLISHMENTS

Workshop/Seminar/STTP/TEQIP Attended by faculty

Sr. No.	Name of the Person	Name of the Workshop/Seminar/STTP	Date	No. of days	Venue Details
1	Dr. Kavita Sonawane	ATAL-FDP on "Institutional Restructuring and Strengthening Autonomy through NEP 2020"	20 th Nov. to 25 th Nov. 2023	1 Week	Fr. Agnel, Bandra
2	Dr. Dakshata Panchal	ATAL-FDP on "Institutional Restructuring and Strengthening Autonomy through NEP 2020"	20 th Nov. to 25 th Nov. 2023	1 Week	Fr. Agnel, Bandra
3	Rajkumar Shende	Blockchain Technology: Architecture and its applications	04 th Dec. to 09 th Dec. 2023	1 week	Fr. C. Rodrigues COE, Bandra
4	Ankita Karia	Capacity Building Workshop on "Next generation Solutions: Harnessing the Power of Blockchain & AI	19 th June to 01 st July 2023	2 week	SFIT
5	Snehal Kulkarni	AICTE- ATAL FDP, "AI & Cloud: Workshop on Responsive AI in the cloud :Leveraging generative power in the cloud	21 st Aug. to 25 th Aug. 2023	1 week	Online
6	Varsha Nagpurkar	Capacity Building Workshop on "Next generation Solutions: Harnessing the Power of Blockchain & AI	19th June to 1st July 2023	2 week	SFIT
7	Jayashri Mittal	Capacity Building Workshop on "Next generation Solutions: Harnessing the Power of Blockchain & AI	19th June to 1st July 2023	2 week	SFIT
		ATAL FDP titled "Information Security Management: A Practical Approach"	4th Dec to 9th Dec 2023	1 week	SFIT
8	Manivannan P	Faculty Induction Program	3 july2023 to 7 July 2023	1week	SFIT
9		Capacity Building Workshop on "Next generation Solutions: Harnessing the Power of Blockchain & AI	19th June to 1st July 2023	2 WEEK	
10		ATAL-FDP on "Emerging Trends in Cyber security and Digital forensics"	4 th Dec to 9 th Dec 2023	1 Week	
11	Prachiti Pimple	Faculty Induction Program	3 july2023 to 7 july 2023	1 week	SFIT

12		FDP on Building Transparent and Explainable AI	13th and 14th Oct 2023	2 days	Online
13	Prasad D. Pulekar	Faculty Induction Program	3 July 2023 to 7 July 2023	1 week	SFIT
14		"Emerging Trends in Cyber Security and Digital Forensics "	4th Dec to 9th Dec 2023	1 week	PHCET, Rasayani
15		Cultivating The Future Of Healthcare with Generative AI	11 th Dec. to 15 th Dec. 2023	1 week	Online, IT Dept, SFIT

6) Workshop/Seminar/STTP/TEQIP Conducted by faculty

Sr. No.	Name of the faculty	STTP/ Workshop/ Seminar Conducted	Topic	Conducted for	Date
1	K. Priya Karunakaran	30 Hr-Value Added Course	Industry Academia Cross Training Master Class Program	BE CMPN Students	3 rd July to 7 th July and 15 th July 2023
2		Workshop	Building GUI applications using Java	SE CMPN Students	6 th September 2023
3	Dr. Kavita Sonawane	Seminar	How to Write a Research Paper	BE CMPN Students	23 rd August 2023
4	Ms. Jayashri Mittal	Seminar/R&D lecture	Hands on Power BI	SFIT Faculty	2 nd Sept. 2023
5	Dr. Dakshata Panchal; Mr. Ryan Nayak; Mr. Karthik Menon	Workshop	Hands on LaTeX	BE CMPN Students	12 th Sept. 2023
6	Rupesh Mishra, Manivannan P., Shamshuddin Khan, Prachiti Pimple Pimple	Industrial Visit	One Day Industrial Visit	TE CMPN Students	13 th and 14 th Sept. 2023

7	Ms.Sripriya Venkatesan	Seminar	Generative AI: Implementations and Trends in Industry	BE CMPN Students	19 th Oct. 2023
8	Dr. Kavita Sonavane , Priya Karunakaran, Snehal Kulkarni	FDP(Coordinator), FDP(Co-coordinator), FDP(Co-coordinator)	AICTE Training and Learning (ATAL) Academy Sponsored 6 Days Offline FDP titled "Information Security Management: A Practical Approach"	Engineering faculty	4 th - 9 th Dec 2023

7) Online courses completed by faculty

Sr. No	Name of Faculty	Course title	Organizing Body (NPTEL/Coursera etc)	Duration	From Date	To Date	Remarks
1	Snehal Kulkarni	Completed 12 weeks NPTEL "Software Testing" IIT Bangalore Course	NPTEL	12 weeks	July 23	Oct 2023	Successfully completed
2	Manivannan	Completed 12 weeks NPTEL "Cloud Computing" IIT Kharagpur Course	NPTEL	12 weeks	Jul 10 2023	Oct 1 2023	ELITE
3	Prachiti Pimple	Python For Data Science	NPTEL	4 weeks	23-Jul 2023	Aug2023	ELITE
4	Prachiti Pimple	SWAYAM online course of" Research Methodology"	SWAYAM (National Law University Delhi)	12 weeks	July 23	Oct 2023	Successfully completed

8) Departmental Research Activities

Sr. No	Name of the Faculty	Name of Project
1	Ms. Ankita Karia, Ms. K. Priya	Inventory management system

9) Product Development/ Outhouse Projects

Sr. No.	Product / Project Title	Name of Faculty	Name of Students	Project Details
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1	PQRS Homeopathy: Patient Case Processing & Consultation System	K. Priya Karunakaran	Joshua Dsouza, Simson Mastan, Steven Mathew	BE Project to implement a distributed system for facilitating clinical practice management and case processing for the practitioner, Dr. Rajesh Padhghan's PQRS homeopathy clinic.
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✚ Events Organized by Department

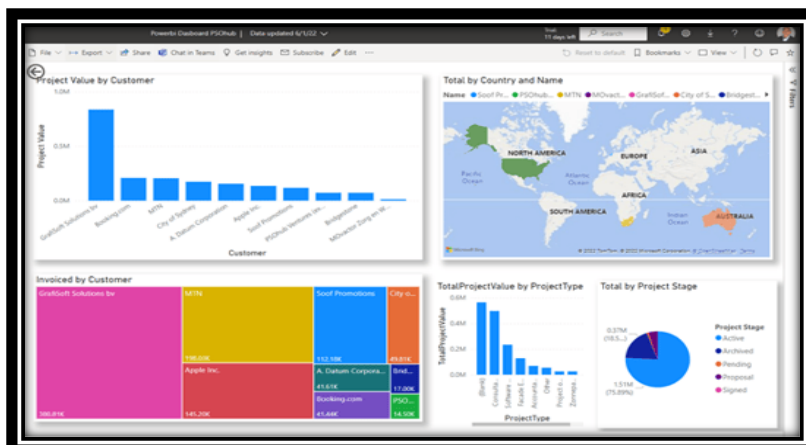
1. **Workshop on “Building GUI Applications using Java”** on 6/9/2023 by Mr. Carl Mascarenhas, BE CMPN A for the Students of Second Year Computer Engineering



2. **Seminar on “How to Write a Research Paper”** 23.08.2023 by Dr. Kavita Sonawane for the Students of Final Year Computer Engineering



3. **Research & Development Lecture on “Hands-on Power BI”** by Ms. Jayashri Mittal (Assistant Professor, CMPN Dept.) on 2nd September 2023



4. Seminar on “Hands on LaTeX Workshop” on 12.09.2023 for the Students of Final Year Computer Engineering

Resource Persons

Ms. Dakshata Panchal

Asst. HOD, CMPN St. Francis Institute of Technology Mumbai

Mr. Ryan Nayak

Associate Consultant, Fourth Signal, Andheri-East Mumbai – 400093

Mr. Karthik Menon

KubixSquare Mira Road -East Mumbai – 401107

The LaTeX session proved to be an informative and practical experience for all participants, empowering them with the knowledge and tools needed to utilize LaTeX effectively in their academic and professional work.



5. **One Day Industrial Visit for TE Students to Tata Communication Payments Solution LTD on 13 and 14 September, 2023**

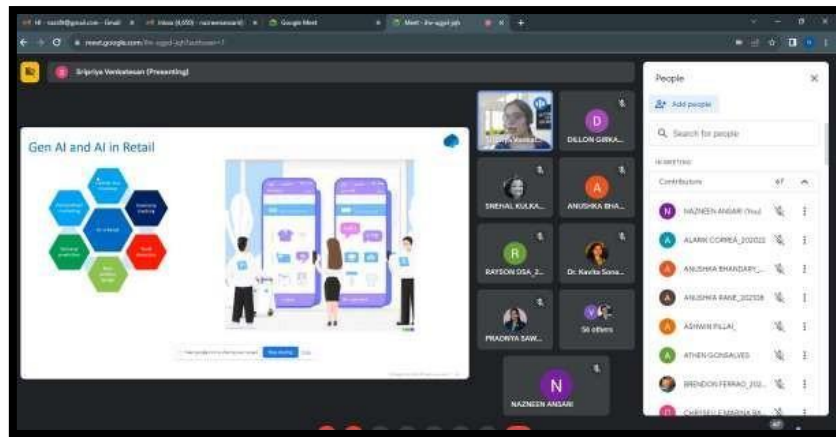
The industrial visit to Tata Payment Solutions was an enlightening and transformative experience for the third-year Computer Engineering students. It served as a vital link between classroom learning and real-world applications in the dynamic realm of payment solutions, with a special emphasis on Automated Teller Machines (ATMs). Through immersive sessions, interactive discussions, and invaluable interactions with industry experts, we gained profound insights into the intricacies of ATM technology and the broader fintech sector.

The highlight of the visit, undoubtedly, was the exclusive engagement with the Tech Head of Tata Payment Solutions. This mentorship opportunity provided students with invaluable perspectives on emerging technologies, industry trends, and potential career pathways within the fintech landscape. It left a memorable mark, not only deepening their understanding of the professional terrain we aspire to enter but also igniting a sense of inspiration and purpose.



TE Faculty Members: Mr. Shamsuddin Khan, Mr. Manivannan, Ms. Prachiti Pimple

6. **Seminar Report on “Generative AI: Implementations and Trends in industry”** by Ms. Sripriya Venkatesan, Chief Architect at Capgemini on 19/10/2023 for Fourth year students of Computer Engineering



AICTE Training and Learning (ATAL) Faculty Development Program (FDP) titled “Information Security Management: A Practical Approach” from 4 to 9 December 2023



The Department of Computer Engineering, St. Francis Institute of Technology, Borivli (W) received the grant (3.5L) from AICTE for organizing AICTE Training and Learning (ATAL) Faculty Development Program (FDP) titled "Information Security Management: A practical approach", from 4th December 2023 till 9th December 2023. The ATAL FDP is a prestigious

initiative by **AICTE** aimed at enhancing the skills and knowledge of faculty members and researchers across the country. Being selected to host an ATAL FDP is recognition of our institution's expertise and the potential impact we can make in our field. This is a significant achievement and a testament to our institution's commitment to fostering excellence in education and research.

The FDP was co-ordinated by **Dr. Kavita Sonawane**, Professor and HOD-CMPN and the Co-coordinators were Ms. K. Priya Karunakaran and Ms. Snehal Kulkarni, Assistant Professors, CMPN.

In all there were 50 participants who registered for this FDP from 13 Engineering Colleges.

Industrial visit: There was an industrial visit as part of this FDP to **Directorate of Forensic Science Laboratories**, Mumbai, where participants visited the various departments such as Biology & Serology, DNA, Ballistics, Physics, Tape Authentication & Speaker Identification and Cyber Forensic.

This FDP was organized to enable the participants to achieve the following outcomes:

- Comprehend Information Security Fundamentals
- Comprehensive Security Awareness
- Risk management skills in digital era
- Enhancement of Threat Intelligence Analysis
- Application of Data Protection Measures
- Secure Digital Practices
- Evaluation of Information Security Management Systems
- Awareness of Emerging Trends in security
- Advocation of a digitally secure environment

Participants gave very good feedback about the FDP and also for all the resource persons and mentioned how they gained immensely from this experience. All the participants were very happy to get the opportunity to visit the Directorate of Forensic Science Laboratories where they practically saw how Cyber Security related activities and other forensic cases were handled. The overall feedback about the FDP was Excellent.



DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

+ VISION:

To become a centre of excellence globally in the field of Electronics and Telecommunication where teamwork, innovation, and research are encouraged to nurture and develop graduates and postgraduates with strong academic foundation and an all-round personality with ethical values.

+ MISSION:

To impart quality technical education and expose students to state-of-the-art technologies in the field of Electronics and Telecommunication Engineering.

To imbibe ethical and professional values, inculcate the quest for higher learning and an aptitude for research and global competency.

To develop entrepreneurial skills amongst students to cater to the challenges of industry and society.

To motivate students towards research, leading to multidisciplinary innovative projects.

+ STAFF ACHIEVEMENTS:

- Asst. Prof. Snehal Lopes successfully completed 8-week course on Programming, Data structures and Algorithms Using Python as part of the NPTEL Certification.
- Asst. Prof. Monika Cheema completed 12-week course on Modern Digital Communication as part of the NPTEL Certification and received the Elite-Silver badge.
- Asst. Prof. Quanita Shaikh successfully completed 12-week course on Joy of computing as part of the NPTEL Certification and received the Elite-Silver badge.
- Asst. Prof. Jovita Serrao completed the Arm India VLSI to System Design: Silicon to End Application Approach organized by the All India Council for Technical Education (AICTE), Arm Education and STMicroelectronics

+ Student Achievements:

- Shantanu Wanivadekar, Prachi Pandey, Tejas Vaidya and Rahul Nayak were selected for the final round of **18th Aavishkar: Inter-Collegiate Research Convention** for their research project titled *Myoelectric Prosthetic Arm with FPGA Based control System* in Engineering and Technology Category, held on 15th December 2023 organized by the University of Mumbai.
- Anish Karbhari, Jonathan D'cruz and Rutuja Shinde secured **1st Place** in Business Plan Category Best Female Participant in CV **Category 5th Place** in Overall Competition in **10th Go Kart Design Challenge** organized by ISNEE Motorsports at National Level from April 10, 2023 to April 13, 2023.
- Suraj Chaudhary and Shantanu Wanivadekar successfully cleared **GATE 2023**.

Workshop/Seminar/Conference Attended (Jul-Dec 23)

Sr. No.	Name of the Faculty	Title of the Workshop/Seminar/Conference	Organizing Body
1	Ms. Sunita Yadav	FDP on Building advanced data analytics applications with cloud	Next Gen Employability Program
2	Ms Sunita Yadav	FDP on Applied Machine Learning in VLSI Design	AICTE Training and Learning (ATAL) Academy
3	Ms. Latika Agrawal	Faculty Induction Program	SFIT, Borivali
4	Ms. Snehal Lopes	Completed 5 days FDP on Building advanced data analytics applications with cloud from 18/12/2023 to 22/12/2023	Next Gen Employability Program
5	Ms. Snehal Lopes	FDP on "Inculcating Universal Human Values in Technical Education"	All India Council for Technical Education (AICTE)
6	Ms. Poonam Badadhe	FDP on Applied Machine Learning in VLSI Design	AICTE Training and Learning (ATAL) Academy
7	Ms. Poonam Badadhe	FDP on "Inculcating Universal Human Values in Technical Education"	All India Council for Technical Education (AICTE)
8	Ms. Shilpa Chaman	"1 week FDP on AI & Cloud: Workshop on responsive AI in the cloud: Leveraging Generative power in the Cloud from 21st August 2023 to 25th August 2023	Microsoft, SAP and AICTE, under TechSaksham
9	Ms.Monika Cheema	Completed 5 days FDP on Building advanced data analytics applications with cloud from 18/12/2023 to 22/12/2023	Next Gen Employability Program
10	Ms. Monika Cheema	Completed 6 days Basic Course on IoT - level 2 conducted by TiH IIT Bombay from 3rd-8th July 2023	TiH IIT Bombay
11	Dr. Kevin Noronha	Completed one week AICTE ATAL FDP On "Information Security Management: A Practical Approach" from 4/12/2023-9-12-2023	Conducted by Dept of CMPN, SFIT
12	Dr.Ravindra Chaudhari	FDP on "Inculcating Universal Human Values in Technical Education"	All India Council for Technical Education (AICTE)
13	Ms.Quanitah Shaikh	FDP on Applied Machine Learning in VLSI Design	AICTE Training and Learning (ATAL) Academy
14	Ms.Quanitah Shaikh	FDP on Artificial Intelligence & Data,Science: Perspectives,Pedagogy and Practices	JIO Institute
15	Dr. Vaqar Ansari	FDP on Artificial Intelligence & Data,Science: Perspectives,Pedagogy and Practices	JIO Institute

TEACHING FACULTY PUBLICATIONS

Sr. No	Author's Name	Paper Title	Publication details
1	Mrinmoyee Mukherjee, Kevin Noronha	Experimental estimation of quality of service parameters at divergent wavelengths and luminous intensities for indoor visible light communication using OOK-NRZ modulation	Journal of Optics, pp 1-20, Dec 2023 Publisher: Springer
2	Swati Nadkarni, Kevin Noronha	Breast Cancer Detection with Multiparametric Magnetic Resonance Imaging using Deep Learning	International Conference on Smart Systems for applications in Electrical Sciences (ICSSSES),pg 1-5,July 2023 Publisher: IEEE
3	Mrinmoyee Mukherjee, Kevin Noronha	Optimization for evaluation of the number of LEDs and estimation of QoS parameters for indoor VLC 2023	14th International Conference on Computing Communication and Networking Technologies (ICCCNT), pg 1-7, July 2023, IEEE
4	Atharva Choudhari,Ramani Desai,Arya Ankolekar,Harsh Daitkar,Savita Kulkarni	Smart IOT Monitoring for Precision 3D Printing: A Multidimensional Approach	UGC Care Group II Journal, Scopus Active Journal , Vol. volume 9, No. Issue 11, pp. Page no 109-112, November, 2023

Invited talk (Jul- Dec 2023)

Sr. No.	Name of the Faculty	Title of Workshop/Seminar/Conference	Organizing Body
1.	Ms. Shilpa Chaman	“Conducted a 30 hour embedded workshop in “BRIDGING THE EDUCATIONAL GAP IN EMBEDDED SYSTEMS”, 29 May 2023 -2 June 2023.	SFIT, Mumbai.
2.	Ms. Valentina Rani Basker	LaTex hands-on Workshop	SFIT, EXTC
3.	Dr. Vaqar Ansari	LaTex hands-on Workshop	SFIT, EXTC
4.	Dr. Vaqar Ansari	Dissertation/Project Report and Manuscript Writing using Latex	SJCEM, Palghar
5.	Dr. Vaqar Ansari	One week workshop on Matlab simulink of Communication Systems	Indian Airforce, Bangalore

DEPARTMENT OF MECHANICAL ENGINEERING

VISION

To be a globally renowned brand for mechanical engineers where interdisciplinary activities would churn out industry ready professionals with universal human values, thirst for new knowledge and entrepreneurial skills.

MISSION

To be a hub with conducive learning environment and modern facilities where aspiring youngsters would be transformed into skilled and motivated mechanical engineers.

To encourage the students to participate in multidisciplinary and innovative projects addressing techno-social concerns.

To foster the research aptitude in students to pursue higher studies and to take up jobs in research organizations.

To promote activities to instil universal human values and entrepreneurial skills in the students.



Many Congratulations to Dr. Rishi Kumar for successfully completing his **PhD** in “Model based diagnosis for sun gear tooth crack in wind turbine drivetrain under constant and ramp-up speed” from National Institute of Technology, Patna.

2. Faculty Development Programme (FDP)/Workshop Attended:

Name of Faculty	Course Title	Duration	Organized by
Mrs. Farhat Khan	Sustainable Energy Technology	12 weeks	NPTEL, IIT Hyderabad
Mrs. Farhat Khan	Cultivating the future of Healthcare with Generative AI	5 days	ISTE, SFIT
Mr. Rohit Patil	Recent Trends in Electric Vehicles	5 days	Rizvi College of Engineering
Mr. Rohit Patil	Functional and Conceptual Design	12 weeks	NPTEL, IIT Madras
Mr. Chinmay Rohekar	Cultivating the future of Healthcare with Generative AI	5 days	ISTE, SFIT
Mr. Chinmay Rohekar	Operations and Supply Chain Management	12 weeks	NPTEL, IIT Madras
Mr. Saurabh Vichare	Inculcating Universal Human Values in Technical Education	5 days	AICTE
Mr. Saurabh Vichare	Fundamentals of Manufacturing Processes	12 weeks	IIT, Roorkee
Mr. Yunus Dalal	Module 8- Institutional Management & Administrative Procedures	8 weeks	NITTT Trained Teachers
Mr. Sanjay Ghaskatta	Engineering Graphics & Design	12 weeks	NPTEL, IIT Madras

STTP/Competition/Webinar/Workshop/ Orientation

Sr. No.	Date	Name of Activity	Beneficiaries	Total Participants
1.	July 13, 2023	Dangers of Drug Abuse and Related Laws	SE, TE and BE Students	109
2.	July 19, 2023	Importance of Report Writing and Use of Latex	SE, TE and BE Students	135
3.	August 04, 2023	Team Building & Constructive Feedback	SE, TE and BE Students	135
4.	September 14, 2023	Opportunities for Engineers in the Electric Vehicle Sector	SE, TE and BE Students	135
5.	October 17-18, 2023	Indian Railways Workshop, Parel	B.E. students	58
6.	October 19, 2023	R&D Lecture	SFIT Staff	18
7.	October 26-27, 2023	BlueStar Two Day Training Session	B.E. students	20
8.	October 30, 2023	S.E. Mini project	S.E. student	
		T.E. Mini project	T.E. student	
		B.E. project	B.E. student	
9.	November 17-18, 2023	AeroTHON 2023, Drone Competition	Team TEJAS, SFIT	06
10.	December 2023	Internship Program	T.E., B.E. Students	12



The session on Dangers of Drug Abuse and Related Laws conducted by PSI Dr Deepak Hinde & ASI Rahul Siddhe on 13th July, 2023 was a big success, as all the participants had shown keen interest in knowing more about the dangers of drug abuse and the laws that govern it and asked many questions related to the topic. The Resources person delivered an excellent session giving insights about the dangers of social media and its misuse, as well as the use of drugs by our teenagers and the prevention to stop it.



Seminar on Importance of Report Writing and Use of Latex conducted on August 4, 2023 by Dr. Devyani Rozario

DEPARTMENT OF ELECTRICAL ENGINEERING

VISION:

To produce electrical engineers that are globally competent for providing service to mankind with the inculcated modern technical education.

MISSION:

- M1: To provide comprehensive proficiency in the field of electrical engineering along with the blend of multi-disciplinary learning.
- M2: To create a conducive environment for integrating research and teaching practices leading to the development of entrepreneurial skills among learners which will help to cater to the challenges of society and industry.
- M3: To collaborate with industries, renowned teaching and research institutes, and alumni, for contributing to international and national development accompanied with life-long learning.
- M4: To motivate learners for participating and organizing curricular and co-curricular activities for improving creativity, innovating, and leadership quality in the learners.



BE Electrical student **Soham Nar** secured **First position** in the “**Ideathon: Climate Change and Strategies for a Sustainable Future**” jointly organized by **IEEE WIE Affinity Group Bombay Section and IEEE Student Branch of Ramrao Adik Institute of Technology**, DY Patil Deemed to be University, Nerul, Navi Mumbai, held on 5th August 2023.



Mr. Anish Vedant (recently graduated (July 2023) BE ELECTRICAL student) has won the **IEI – NMLC FCRIIT EXCELLENCE AWARDS** for “**RESEARCH EXCELLENCE (UG-Regional)**” category. He carried out his research work under the guidance of **Dr. Mohd Adil Sheikh**.



Dr. Mohd Adil Sheikh was invited as a **resource person** for **IEEE Bombay Section “SMELT 4.2”** program held at **CSMSS Chh.Shahu College of Engineering** on 2nd September 2023.



Seminar on Career Opportunities in Indian Armed Forces” was conducted by the Electrical Engineering Students Association under the Aegis of the Department of Electrical Engineering on 8th August 2023. The Speaker for the day was our very own Alumni, Gentleman Cadet Mr. Aditya Yadav. It was a very joyous occasion as he is the first student from the Electrical Engineering Department to join and serve the Indian Armed Forces.



1. Opportunities For Engineers in The Electric Vehicle Sector

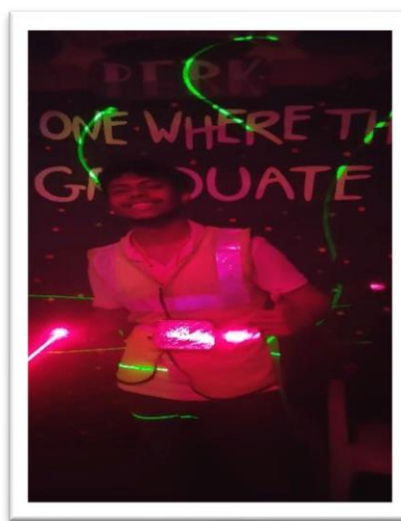
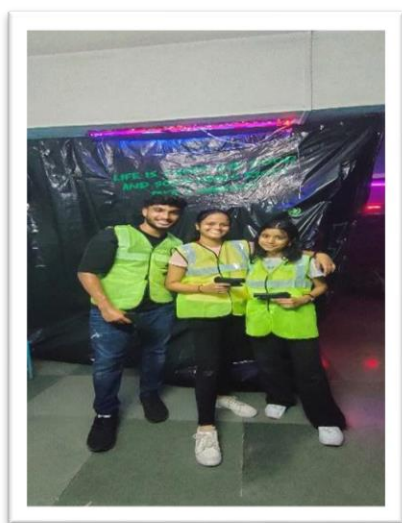
Event Date : September 14, 2023 Time : 9:00 am to 11:00 pm (2 Hrs.)

Venue : Auditorium(114) No. of Registered Students: 135(Mech and ELEC)

As a part of the Activities under MESA & EESA, a seminar on “OPPORTUNITIES FOR ENGINEERS IN THE ELECTRIC VEHICLE SECTOR” was held in collaboration with DIYGURU. The resource person, MR. VIVEK PATHELLA – Director of DIYGURU and MR. YUSUF CHOUGLE-Technical Head gave a brief overview of the mindset of students related to unemployment and the scope for electrical and mechanical engineers in the electric vehicle sector. It also shared the importance of core concepts that are required for the

engineers in the electrical industry. The students came to know about the various background and technical skills required in not only the EV sector but also the electric industrial market.

Battle X Battle 2.0



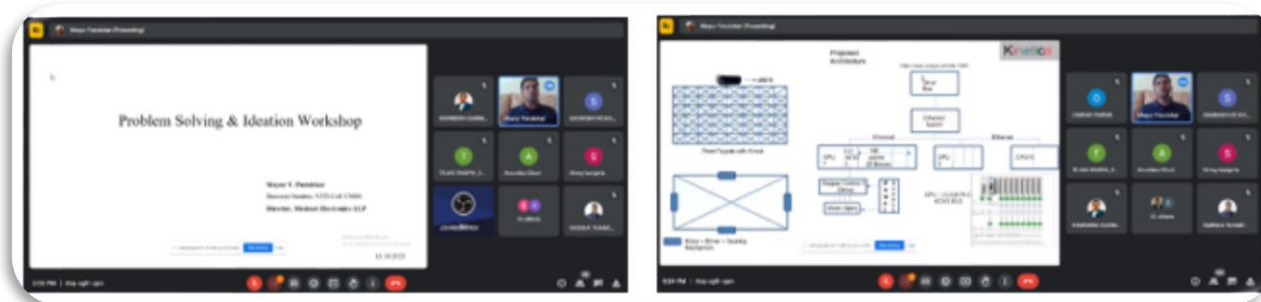
- ❖ 1st round – "Game of Goals and Genius: FIFA Science Quest"
("Unleash Your Soccer Smarts and Scientific Savvy!")
- ❖ 2nd round – "Blast 'n Beam Brawl: Nerf & Laser Battle Royale"
("Lock 'n Load: Gear Up for the Ultimate Nerf & Laser Showdown!")

2. Unleashing Ingenuity: Problem Solving and Ideation Workshop

Event Date : October 13, 2023 Time : 3:00 pm

Venue : live on Youtube

Resource Person: MR. Mayur V. Parulekar



As a part of the Activities under IIC SFIT & EESA SFIT, a seminar on "Unleashing Ingenuity: Problem Solving and Ideation Workshop". The resource person, MR. Mayur V. Parulekar – Director of Meshnet Electronics LLP. Your vast experience and expertise on cutting-edge technologies will not only enrich their knowledge but guide budding engineers towards innovative project implementation. The seminar covered two important case studies and various aspects of problem solving and ideation.

- **Case study 1: Installation of New Age Kinetica:**

This case study is related to the Mechanical field , Electrical field and Art. They explained about the kind of installation and CPU- Click PLC . The significance of evaluating strengths, weaknesses, opportunities, and threats before a project.

- **Case study 2: Choice and Reuse of Technology - 129 Tail of the Dragon:**

The session likely provided insights into how to design and implement of solutions. They design a board like modular in the nature.

COMPUTER SOCIETY OF INDIA (CSI-SFIT)

Mosaic Event: Shattered Dimensions



The event "Shattered Dimension" was an extraordinary journey where the past collided with the future, causing the present to break down. Participants embarked on an epic adventure, delving into mind-boggling paradoxes and scientific breakthroughs that bridged the gap between history and the future.

In this unique event, groups of 4-6 participants worked together to fix the time machine by navigating three stages each in the "PAST" and "FUTURE" simultaneously. The challenge was to restore time to its usual state by successfully completing the stages of the game. "Shattered Dimension" provided an immersive and collaborative experience, requiring participants to unravel the mysteries of time and space. The event showcased the participants' ability to work together and overcome obstacles, ensuring that the present was restored from the fractures of the past and the future. It was truly a thrilling journey into the unknown, where the convergence of the past, present, and future created an unforgettable experience for all involved.

Annual Magazine Launch – Paradigm



The student members of CSI-SFIT chapter tirelessly dedicate themselves throughout the year, aiming to elevate the student branch to new heights. Among the notable accomplishments of CSI-SFIT, the CSI Annual Magazine "PARADIGM" stands out as a significant milestone. The 6th Edition of "PARADIGM" seeks to present cutting-edge insights and innovations in the technological realm, underscoring the committee's commitment to facilitating knowledge exchange and advancement. This edition delves into the transformative impact of Artificial Intelligence across diverse industries, examining its applications, challenges, and future prospects. Its content includes reports of various activities conducted throughout the year, technical articles by the students, quizzes, and information on upcoming technology and gadgets. Emphasizing the committee's steadfast dedication to remaining at the forefront of technological progress, the magazine aims to foster insightful discussions.

SFIT-IEEE Student Chapter

IEEE-SFIT student branch endeavors to foster technical learning and instill interpersonal competence for the overall personality development. This chapter was conceptualized in SFIT in the year 2003 and currently, it is one of the active branches of the IEEE Bombay Section. This year the SFIT WIE committee was revived which was conceptualized in SFIT in the year 2008. ISSB and SFIT-WIE, both individually as well as in collaboration, has conducted various seminars, lectures and workshops within the institute since it's inception.

Currently, ISSB and SFIT-WIE is convened by Dr. Dakshata Panchal and Ms. Valentina Rani Basker with a strong team of 51 student members.



Major Events Conducted

Mindclash 4.0

Inter-collegiate debate competition that instills a fierce discussion and a clash of opinions in the group discussion round.

InQuizitive 2.0

Inter-collegiate technical quiz competition that challenges students intellectual and technical knowledge and helps them showcase their analytical skills, critical thinking and problem-solving abilities.

Radiant Rumble

A successful Inter-collegiate Glow Ring Football competition conducted in MOSAIC 2023. This innovative technical twist on traditional Ring-Football created unforgettable experience for participants and spectators alike.

MOSAIC TECHFEST

MOSAIC, the highly anticipated annual technical fest of St. Francis Institute of Technology, is not merely an event but a celebration that underscores the paramount importance of technology and innovation. MOSAIC 2023, a two-day extravaganza of innovation, technology, and talent, was organized with great zeal and enthusiasm at SFIT on the 15th and 16th of September 2023. This annual event brought together students, faculty, and the local community to celebrate and showcase cutting-edge advancements in various domains. The event comprised a HackX 24-hour offline hackathon and a captivating Robozone competition, along with several technical chapter and local club events.

MOSAIC 2023 witnessed an impressive attendance of over 3000+ enthusiastic students, faculty, and community members, offering a prime demographic for media engagement.

In total, 9 Local Technical Chapter Events and 2 National Level Events: a Hackathon and a Robotics Competition were held celebrating 25 years of academic excellence of SFIT during Mosaic 2023. The participants for HackX 1.0 were from across the state and country, from cities like Pune, Nashik, Navi Mumbai, Hyderabad, Bhubaneshwar, Punjab, New Delhi, Gujarat, Bangalore, etc. Count for hackathon participants was 244. 8 Technical Teams with 54 participants were present for the Robozone competition

The Chief Guest for the event was Mr. Arsh Goyal a Senior Software Engineer at Samsung and a celebrated content creator in the technology domain.

The event proceeded with the felicitation of the Chief Guest, the Speaker, and the honorable judges and mentors for the HackX event. Mr. Dishant Zaveri, a distinguished speaker, and a multi-talented tech virtuoso with a proven track record of conquering national and international hackathons, was the Speaker at the event. After his address to the crowd, the participating teams, one each from HackX and Roboroute Rumble Competition gave feedback on the event and expressed their gratitude and joy.

The winning teams are:

➤ HackX Winners:

- Mega prize winner: SVKM's Dwarkadas J Sanghvi College of Engineering, Mumbai

➤ Track prize winners:

- Thadomal Shahani College of Engineering, Mumbai Thakur College of Engineering and Technology, Mumbai Pimpri Chinchwad College of Engineering, Pune

Roboroute Rumble Competition winners:

- 1st prize: St. Francis Institute of Technology, Mumbai
- 2nd prize: Sardar Patel College of Engineering, Mumbai
- 3rd prize: L.R.Tiwari College of Engineering, Mumbai

A quick video interview with Mr. Arsh Goyal was conducted in the Board Room, where the students at SFIT got a chance to connect and know the Chief Guest better. After this, the most awaited Prize Distribution Ceremony was held, announcing the winning teams of the National Level Competition HackX and Roboroute Rumble.



Lighting of the lamp and Anchors

Welcome address by the Director and Principal



Felicitation of the Chief Guest and Chief Guest addressing



Inauguration of MOSAIC 2023



ISTE-SFIT Student Chapter

WORKSHOP ON LATEX SIMPLIFIED: CRAFTING ORIGINAL TECHNICAL PAPERS 2nd September 2023,

Resource Person: Dr. Vaqar Ansari, Asst. Prof., Department of ExTC



Writing a technical paper using Latex is a valuable skill for researchers and academics, as Latex is a powerful typesetting system that produces high-quality documents, particularly for scientific and technical content. In this Latex workshop, students were introduced to the fundamentals of using Latex to create a well-structured and professionally formatted technical paper.

The final number of registrations was 97. At the end of the workshop, a quiz was provided to the top 15 participants who answered questions throughout the workshop.

SFIT NSS (National Service Scheme)



MESA

1. Session on “Dangers of Drug Abuse and Related Laws”
2. Session on “Importance of Report Writing and Use of Latex”
3. Session on “Team Building & Constructive Feedback”
4. Session on “Opportunities for Engineers in the EV Sector.”
5. Activity in “MOSAIC EVENT 2023-2024”

EESA

The first event of the academic year 2023 – 2024 “Seminar on Career Opportunities in Indian Armed Forces” was conducted by the Electrical Engineering Students Association under the Aegis of the Department of Electrical Engineering on 8th August 2023.

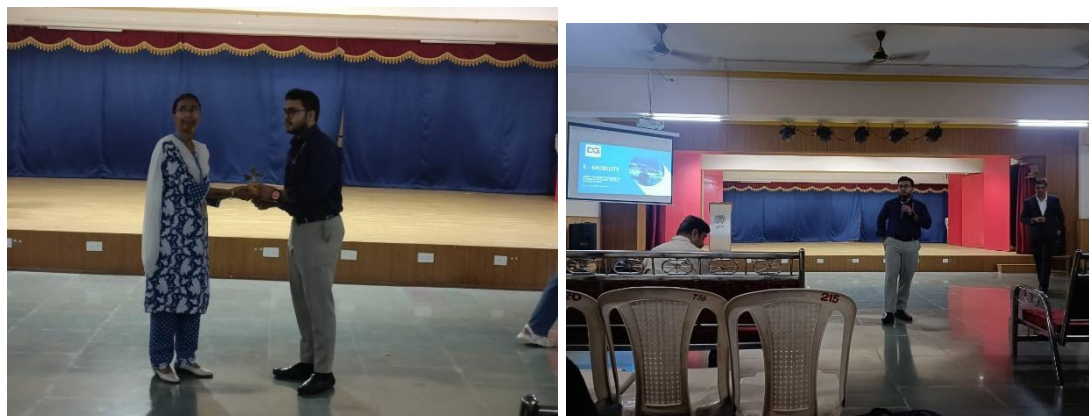
The Speaker for the day was our very own Alumni, Gentleman Cadet Mr. Aditya Yadav. It was a very joyous occasion as he is the first student from the Electrical Engineering Department to join and serve the Indian Armed Forces.

A pre-seminar MCQ test was conducted to observe if the students had any information regarding the Indian Armed Forces. Mr. Aditya started off with the seminar by explaining the need and importance of joining the Indian Armed Forces and how it would change one's life.

Types of Different Entries were explained by Mr. Aditya

- UPSC-CDS
- AFCAT
- SSC TECH
- TGC

Eligibility Criteria, Pay Structure and Written exam formats were discussed. Mr. Aditya discussed the three major points of Manasa, Vacha and Karma related to the Interview process. GTO tasks and QLQS were spoken in brief. Mr. Aditya ended the seminar with a Q/A session where he was asked about his training process and how he cracked his interviews.



MOSAIC 2023

Title	Remark
Event Title	Battle X Battle 2.0
Committee Name	EESA
Date	15/09/2023,16/09/2023
Event Description Mention number of rounds and each round in brief	1 st round – "Game of Goals and Genius: FIFA Science Quest" ("Unleash Your Soccer Smarts and Scientific Savvy!") 2 nd round – "Blast 'n Beam Brawl: Nerf & Laser Battle Royale" ("Lock 'n Load: Gear Up for the Ultimate Nerf & Laser Showdown!")

Event Photographs:



TEAM TEJAS



Fig. Team SFIT Tejas at Rajlakshmi Engineering College, Chennai

Achievements:

- **Third Place** in CFD Analysis

- **Fifth Place** in Overall Competition in the 8th Drone Design Challenge organized by SAE at the National Level from July 20, 2023, to April 23, 2023.

TEAM AEROTHON



Fig: Team SFIT Tejas at SJGIT, Bangalore

Achievements:

- 4th place in Phase-1
- 12th place overall in the AeroTHON-2023 organized by SAE India Southern Section from 17th November 2023 to 18th November 2023.

Team Robotics Automation Wing - Team RAW

Doordarshan Robocon India 2023 (DD Robocon) is a national competition hosted by IIT Delhi. It is part of the ABU Robocon 2023 hosted by Phnom Penh, Cambodia. This year competition was under the theme “Casting Flowers over Angkor Wat” and it held at Thyagraj Stadium, Delhi. Our team was in 10th position in first stage and 5th position in second stage and successfully completed the final stage. There are total 15 students were involved from different departments.

The e-Yantra is 7-8 months India’s biggest competition hosted by e-yantra, IIT Bombay. It is divided into two stages: stage 1 and stage 2. This year’s 2 teams were participated and out of them one team has secured the AIR 4th place, with theme **Krishi Bot** (Robotics Operating System).

LEARNING AND INFORMATION RESOURCE CENTRE

LIRC Services:

- Orientation and Information Literacy Sessions conducted for FE, DSE and new faculty members.
- Database Training Sessions for IEEE Xplore Digital Library conducted for B.E. Sem VII students.
- Thematic Displays organized for Robotics, Embedded Systems, UPSC and MPSC Books, Entrepreneurship and Best Project Reports.
- Quizzes conducted by SFIT NDLI Club:

Title of the Quiz	Type	Date	Number of Participants
Quiz 1: Blockchain and AI	Technical Quiz	1 st July 2023	53
Quiz 2: Robotics	Technical Quiz	12 th July 2023	19
Quiz 3: Searching for Journals and Magazines	Quiz	14 th July 2023	31
Quiz 4: Random Signal Analysis	Assignment	19 th July 2023	55
Quiz 5: Chandrayaan 3	Quiz	22 nd July 2023	43
Quiz 6: Understanding IEEE Xplore	Quiz	19 th August 2023	05
Quiz 7: EIC	Technical Quiz	28 th July 2023	54
Quiz 8: EIC	Technical Quiz	4 th August 2023	59
Quiz 9: English - Verbal and Written	Quiz	5 th August 2023	68
Quiz: 11 Power Systems	Technical Quiz	9 th August 2023	6
Quiz 10: EIC	Technical Quiz	11 th August 2023	59
Quiz 12: EIC	Technical Quiz	1 st September 2023	48
Quiz 13: EIC	Technical Quiz	9 th September 2023	40
Quiz 14: EIC	Technical Quiz	6 th October 2023	39
Quiz 16: EIC	Technical Quiz	16 th October 2023	23
Quiz 17: Constitution Day of India	Quiz	26 th November 2023	83
Constitution Day of India Reading Preamble	Activity	26 th November 2023	129
ChatGPT	Technical Quiz	30 th November 2023	869
Mathematics Week	Technical Quiz	18 th December 2023	28

Book Bank:

- Funds received from the University of Mumbai for the Book Bank Scheme for SC/ST/DT/NT.



Reading Inspiration Day - 15th October 2023

Reading Inspiration Day, also known as **Vaachan Prerna Diwas**, is an annual celebration held on October 15th to commemorate the birth anniversary of **Dr. APJ Abdul Kalam**, the 11th President of India. Dr. Kalam was a staunch advocate of reading and believed that it was the key to unlocking one's potential and achieving great things in life. This day is dedicated to promoting the habit of reading among people of all ages and to inspire them to embrace the joy of learning.

Reading Inspiration Day was celebrated with a variety of events and activities aimed at promoting reading and encouraging individuals to pick up a book. The following activities were organized as part of the celebrations:

1. **Take Away of Books:** A total of 49 books were displayed. 18 books were taken by students and faculty members.



2. **Exhibition of Rare and Special Collection Books in the Library:** 124 books displayed.



3. **Slogan Writing**
4. **On the Spot Issue:** 37 new books pertaining to General and Leisure Reading were displayed. Students and staff members borrowed maximum books on the spot for reading.
5. **Best Library User Award:** In honour of Reading Inspiration Day which was celebrated on 17th October 2023, we at St. Francis Institute of Technology are delighted to share the names of our most dedicated library users. These individuals embody the spirit of lifelong learning and exemplify the transformational power of reading. Their passion for books extends beyond the

walls of our library, inspiring others to embrace the joy of reading and discover the vast world of knowledge it unlocks.



Best Library Users

Rightly so, our Learning and Information Resource Centre (Central Library) celebrated this big with great enthusiasm. The Best Library Users of the last Academic Year were appreciated and felicitated at the hands of our Principal - Dr. Sincy George. On this special occasion, we couldn't be more proud to recognize our top library users for their unwavering commitment to reading:



Best Library Users for the A.Y. 2022-2023 are:

Category: Students

- First Place: Shashank Keny, INFT
- Second Place: Pranay Dalvi, CMPN
- Third Place: Dylan Dsilva, CMPN

Category: Staff

- Dr. Vaishali Jadhav, INFT

Inputs Given By:

Name of the Member	Data received from
Ms. Nargis Khan	Department of First Year Engineering
Ms. Vandana Patil	Department of Information Technology
Mr. Prasad Pulekar	Department of Computer Engineering
Dr. Vaqar Ansari	Department of Electronics and Telecommunication Engineering
Dr. Ravindra Garmode	Department of Mechanical Engineering
Dr. Adil Sheikh	Department of Electrical Engineering
Mr. Paul Fernandes	NSS
Ms. Chinmayee Bhange	Library (Learning and Information Resource Centre)
Ms. Shilpa Chaman	IETE
Mr. Bysani Malakondaiah	ISTE
Ms. Amrita Mathur	CSI
Dr. Ravindra Garmode	IIC