SARASWATI Education Society's

SARASWATI Institute of Technology

Kharghar, Navi Mumbai - 410210

Information Technology Department Newsletter 2025-2026

+91 8291702022

jyoti.shinde@sce.edu.in

www.siot.org.in

Plot No. 46, Sector - 5, Near M.S.E.B. Sub Station Kharghar, Navi Mumbai - 410210

DTE CODE: 3281

MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION

FACULTY PROFILE

Mrs. Jyoti Shinde
Head Of Department

Mrs. Samika Patil
Lecturer

Mrs. Nutan Purkar
Lecturer

Ms. Mayuri Kushwaha
Lecturer

Ms. Vedantika Patil
Lecturer

FACULTY PROFILE

Ms. Jasmeen Phull
Lecturer

Mr.Vivek Bhau Chandekar
Lecturer

Mr. Haridas Gahineenath
Lecturer

Ms. Sonali Mane
Lab Asst.

Ms. Sanjali Gaykar
Lab Asst.

Ms.Neelam Ghaghre
Lab Attendee

Mr. Vinod Yadav
Lab Asst.

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Sanskruti Jagadale
Vice-President

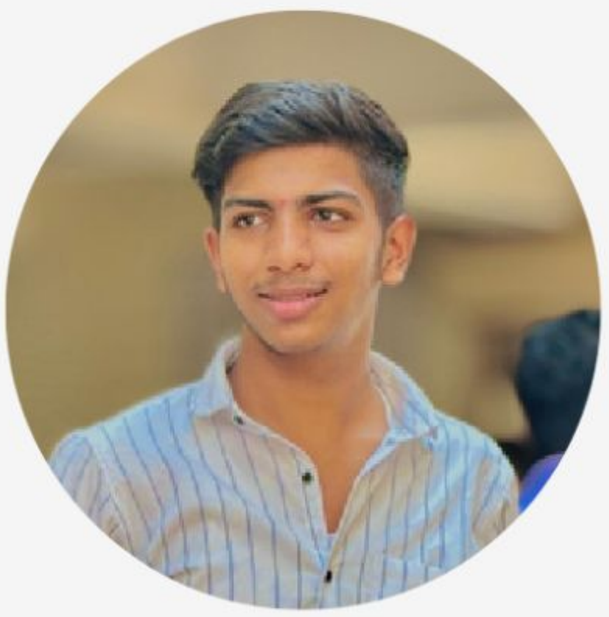
Hetal Pawar
Vice-President

Sandhya Yadav
Cultural Head (Girl)

Pranit Kadam
Cultural Head (Boy)

Rajivani Patil
Cultural Asst.

Swarup Londhe
Media Head



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IFSA (Information Technology Student Association)

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Technical Head

Piyush Dhavle
Technical Asst.

Sairaj Patil
Treasurer

Manthan Dhavarkar
Sports Head

Divya Mhatre
Sports Asst.

Atharv Karanjkar
Sports Asst.

Sankalpa Date
Ladies Representative
(Head)

Anushka Surve
Ladies Representative
(Asst.)

VISSION AND MISSION

To Visualize the creation of skilled, proficient IT professional to meet current challenges

To encourage young minds for trainings & entrepreneurship. To convey standard education with rapidly changing environment with ethical values. To provide an environment where students can continuously learn, apply & communicate knowledge.

HOD'S DESK

OWASP(Open Web Application Security Project)

Mrs. Jyoti Shinde

Introduction :
With the rapid expansion of internet-based services, web applications have become an essential part of modern society. From online education platforms and banking systems to healthcare portals and government services, sensitive information is constantly being processed and stored digitally. This growing dependency has also increased the attack surface for cybercriminals. Cybersecurity breaches are no longer rare incidents but frequent occurrences that cause financial loss, reputational damage, and legal consequences. One of the most effective ways to understand and prevent these attacks is by studying common security weaknesses. The Open Web Application Security Project (OWASP) addresses this need through its OWASP Top 10 list, which identifies the most critical web application security risks worldwide. This article presents a comprehensive explanation of the OWASP Top 10 vulnerabilities with real-world examples, written specifically for college students studying cybersecurity, ethical hacking, and computer science

OWASP Top 10 (2021/2025): The widely recognized, regularly updated report on the 10 most critical web application security risks.
API Security Top 10: A list focusing on the most critical risks specific to APIs.

Mobile Application Security (MAS): A project providing security standards, testing guides, and benchmarks for mobile apps.

Juice Shop: A modern, intentionally insecure web application used for training and security testing.

ZAP (Zed Attack Proxy): A popular open-source, free security tool for finding vulnerabilities in web applications.

Cheat Sheet Series: Concise, easy-to-follow guides for developers on specific application security topics.

SAMM (Software Assurance Maturity Model): A framework to help organizations assess and improve their software security posture.

Conclusion :
The Open Web Application Security Project (OWASP) is a foundational, community-driven framework that provides essential,, actionable, and up-to-date guidance for identifying and mitigating the most critical web application security risks. It empowers developers and security professionals to build safer, more secure applications by establishing industry-standard best practices and fostering a culture of security throughout the software development lifecycle.

FACULTY ARTICLE

Quantum Computing

Ms. Mayuri Kushwaha

Introduction:
Quantum computing is an advanced field of computing that uses the principles of quantum mechanics to process information. Unlike classical computers that use bits (0 or 1), quantum computers use qubits, which can exist in multiple states simultaneously. This property allows quantum computers to perform complex calculations much faster than traditional systems. Quantum computing has potential applications in cryptography, drug discovery, artificial intelligence, and optimization problems. Although still in the developmental stage, quantum computing promises to revolutionize technology by solving problems that are currently impossible for classical computers.

Quantum computing is a revolutionary field of computing
that leverages the principles of quantum mechanics to process information. Unlike classical computers that use bits (0 or 1), quantum computers use qubits, which can exist in multiple states at the same time through superposition. This allows them to perform complex calculations much faster than traditional computers.

Applications of : Quantum computing

1. Cybersecurity & cryptography – developing stronger encryption and breaking existing ones

2.Data analysis – processing huge datasets faster

3.Artificial intelligence & machine learning – improving training speed and accuracy

Conclusion:

Quantum computing is an emerging technology that has the potential to transform the future of computing. By using qubits and the principles of quantum mechanics, it can solve complex problems much faster than classical computers. Although still in the early stages of development, quantum computing shows great promise in areas such as cybersecurity, artificial intelligence, and data processing. With continued research and advancements, quantum computing is expected to play a significant role in the IT sector and technological innovation in the coming years

FACULTY ARTICLE

Artificial Intelligence (AI)

Ms. Vedantika Patil

Artificial Intelligence (AI) is transforming education by making learning more personalized and efficient. AI-powered tools can adapt lessons to individual student needs, provide instant feedback, and assist teachers in managing administrative tasks. Virtual tutors and intelligent learning platforms help students understand complex concepts at their own pace. AI also enables data-driven insights, allowing educators to track progress and improve teaching methods. While AI cannot replace teachers, it complements traditional education by enhancing learning experiences, saving time, and preparing students for a technology-driven future.

Artificial Intelligence (AI) is rapidly transforming the education sector by making learning more personalized and efficient. AI-powered tools can adapt lessons according to individual student needs, provide instant feedback, and help clarify complex concepts. This allows students to learn at their own pace and improves overall understanding.
Teachers also benefit from AI, as it automates administrative tasks like grading, attendance, and performance tracking. This frees up more time for creative teaching, mentoring, and interactive classroom activities. AI-driven analytics help educators identify areas where students struggle and adjust their teaching methods accordingly

Applications of Artifical intelligence :

Personalized Learning:
AI can analyze a student's learning style, strengths, and weaknesses to create customized lessons. Tools like adaptive learning platforms adjust the pace and content according to the individual's needs, helping students understand concepts better and learn at their own speed.

Intelligent Tutoring Systems:
AI-powered virtual tutors: provide one-on-one guidance and support. They can answer questions, give explanations, and provide practice exercises outside the classroom, ensuring students get help anytime they need.

Automated Administrative Tasks:
AI helps teachers by automating repetitive tasks such as grading assignments, tracking attendance, and monitoring student progress. This reduces workload and allows educators to focus more on teaching, mentoring, and interactive classroom activities.

Conclusion:
Artificial Intelligence is no longer just a futuristic concept; it is actively shaping the way education is delivered and experienced. By integrating AI into classrooms and learning platforms, education becomes more personalized, efficient, and accessible to students of all abilities and learning styles. AI empowers teachers by automating routine administrative tasks, giving them more time to focus on creative teaching, mentorship, and student engagement. The technology also provides valuable insights into student performance, helping educators identify gaps and implement strategies to improve learning outcomes.

STUDENT ARTICLE

Threat Analysis and Malware Detection

Ms.Divya mhatre

The rapid proliferation of cyber threats has led threat analysis and malware detection to play key roles in the domain of cybersecurity today. Threat analysis is the process of determining, identifying, and then assessing or prioritizing threats that potentially harm organizations in terms of their digital infrastructure. This involves collecting information on identified risks, determining attack vectors, and assessing what inhibitors are likely to be breached. Threat analysis allows businesses to pre-emptively prepare security measures so that when an attack happens, it won't have as serious consequences.

In contrast to cyber threat detection, which monitors for potential threats by identifying patterns and flagging them as trigger points, malware detection focuses on specific types of software that are meant to be in the system but not allowed. Traditional detection methods like signature-based detection identify known malware signatures up to a point depending on its definition, which has disadvantages when dealing with new or modified threats.

In recent years, threat analysis has increasingly relied on advanced detection methods such as heuristic analysis and machine learning. These techniques have become crucial in identifying previously unknown or "zero-day" malware by analyzing unusual behavior patterns and employing predictive algorithms. This shift towards more sophisticated approaches allows for the proactive identification of emerging threats, enhancing the overall effectiveness of cybersecurity measures.

Integrating threat analysis and advanced malware detection is essential in forming a strong security defense. By implementing both methods, organizations can build a multi-faceted security architecture that not only identifies and responds to threats within moments but also detects underlying vulnerabilities before they are exploited.

STUDENT ARTICLE

Breakingthe Cycle ofNeglect:A Simple Path to Health

Many people tend to overlook their health until a serious issue arises, such as a fever or needing a wheelchair. Health and diet are often seen as concerns only for fitness enthusiasts or bodybuilders, but this mindset is misleading. Health is essential for everyone, and neglecting it can lead to significant problems. A major reason for this neglect is the lack of understanding about nutrition and its impact on the body.

Proper nutrition is vital for bodily functions, including heart health, brain function, and overall development. Consuming too much or too little of any food can create imbalances that harm the body. The rise of influencers spreading unscientific health advice only adds to the confusion, leading many people astray.

Ms.Rajivini Patil

The solution is simple: moderation. Whether it’s indulging in junk food or eating healthy meals, balance is key. Moderation allows flexibility without feeling restricted by strict diets. Balanced meals help regulate hormones, stabilize blood sugar, boost mood, and improve digestion and immunity. They also reduce the risk of chronic illnesses.

ating balanced meals offers a range of benefits. It helps regulate hormone levels, keeps you fuller for longer, stabilizes blood sugar, and improves mood by providing a steady energy supply throughout the day. Balanced nutrition also boosts digestion, strengthens the immune system, and reduces the risk of chronic diseases. However, none of these benefits will be fully realized if you’re not getting enough sleep. Adequate rest is essential for health, as it supports the body's recovery and overall functioning.

In conclusion, good health is about balance. By moderating diet, staying informed, and getting enough rest, we can achieve lasting well-being without extremes. Small, consistent choices lead to better health over time.

SHIV JAYANTI

19/02/2025

Shiv Jayanti Celebration at Saraswati Technology Kharghar College
On 19th February 2025, Saraswati Technology Kharghar College celebrated Shiv Jayanti with great pride and enthusiasm. The campus came alive with cultural performances, speeches, and tributes honoring the legacy of Chhatrapati Shivaji Maharaj.Students showcased the rich history and values of courage, leadership, and unity through skits, dances, and presentations.

The event also included a felicitation ceremony to recognize top-performing students with medals and certificates. Shiv Jayanti marked an important cultural milestone for the college, bringing together students and faculty in a vibrant celebration of heritage and inspiration.

This year marked a significant milestone, as Saraswati Technology Kharghar College embraced Shiv Jayanti as one of its major cultural events, setting a meaningful precedent for the years ahead. The program beautifully combined cultural reverence with youthful enthusiasm, creating an atmosphere filled with respect, passion, and inspiration.

TECH VRITTI

27/02/2025

खारघरमध्ये टेक वृत्ती स्पर्धेला प्रतिसाद

खारघर (बातमीदार) : येथील सरस्वती इन्स्टिट्यूट ऑफ टेक्नॉलॉजी महाविद्यालयातील माहिती आणि तंत्रज्ञान विभागाच्या वतीने टेक वृत्ती राज्यस्तरीय स्पर्धा पार पडली. या स्पर्धेत राज्यातील विविध डिप्लोमा, पदविका महाविद्यालय सहभागी झाले होते. या स्पर्धेसाठी प्रमुख पाहुणे म्हणून आय. ओ. एफ. टी. कंपनीचे संचालक राहुल गुप्ता उपस्थित होते. गुप्ता यांच्या हस्ते विद्यार्थ्यांना प्रशस्तिपत्रक देण्यात आले. या महाविद्यालयाचे प्राचार्य डॉ. डी. आर. सुरोशे, विभागप्रमुख ज्योती शिंदे तसेच शिक्षक कर्मचारी उपस्थित होते.

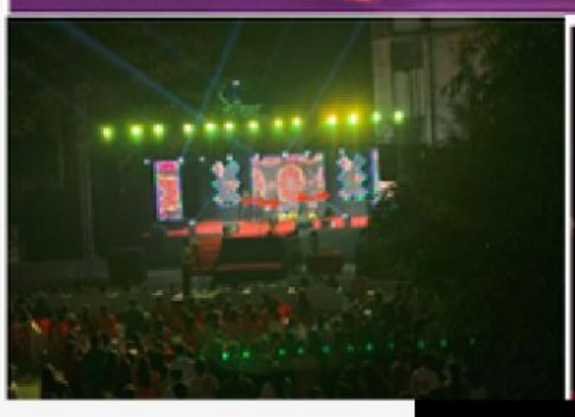
On 27th FEB 2025, that was transformed into a vibrant hub of creativity and appreciation as students and faculty gathered for Tech Vritti 2025 an event MSBT Level designed to honor innovation, strengthen community, and celebrate the guiding forces behind academic excellence. The Judge of Tech Vritti Mr.Rahul Gupta (Director of IOFT). The highlight of the day was a heartfelt Teacher's Day Celebration, seamlessly woven into the tech-fest environment, creating a unique blend of gratitude and innovation. The event brought together the warmth of appreciation and the excitement of discovery, making it one of the most memorable gatherings of the year.

In Saraswati Technology Kharghar College, the academic year witnessed the birth of a new tradition Tech Vritti 2025, the college's first and biggest tech event. Held on 27th Feb 2025, the event set a powerful precedent for innovation, creativity, and community engagement within the institution. We appreciate our topper with medal and certificate. Tech Vritti emerged not just as a festival, but as a symbol of the college's growing vision to foster talent, celebrate knowledge, and encourage technological exploration. The event brought together students and faculty under one vibrant roof, creating an atmosphere alive with excitement, collaboration, and celebration.

Events

NAKSHTRA 2K25

11/03/2025



Nakshatra 2025 – A Celebration of Talent, Creativity & College Spirit
Nakshatra, the annual flagship event of Saraswati Institute of Technology, was celebrated on 11th March 2025 with great enthusiasm and grandeur. As one of the most awaited events of the academic year, Nakshatra stands as a vibrant showcase of creativity, talent, and student spirit. The celebration brought together a dynamic mix of cultural performances, competitions, and entertainment segments, creating an unforgettable experience for the entire college community. From captivating stage acts to engaging activities, the event truly reflected the vibrancy and unity of the institute.

The cultural segment of Nakshatra was a major highlight, featuring a variety of dance, music, and drama performances that kept the audience enthralled throughout. Students showcased exceptional artistic skills, transforming the stage into a hub of expressive creativity. Adding to the prestige of the event was the presence of Miss Gautami Gharat, a distinguished personality titled Miss Palghar 2025, Miss Kharghar 2025, Miss Kalamboli 2023, and Miss India World 1st Runner-Up (Goa, 2023). Her inspiring address emphasized creativity, dedication, and the importance of community, leaving a lasting impact on the audience.

5 DAY FACULTY DEVELOPMENT PROGRAM

The Department of Information Technology and Computer Engineering successfully organized a State-Level One Week Faculty Development Programme titled “TechBridge FDP on Core Technologies” from 23rd June to 27th June 2025. This five-day programme was designed to enhance the technical skills of faculty members from various institutions and to provide them with exposure to emerging tools and technologies shaping the modern IT landscape. Throughout the event, participants engaged in interactive sessions, expert-led demonstrations, and knowledge-sharing activities focused on core technological domains.

The FDP witnessed the invaluable contribution of distinguished resource persons from academia and industry, including Mr. Rahul Gupta, Founder and Director at OFT, known for his expertise in innovative enterprise solutions; Mr. Raj Sinha, Software Engineer at VITALEDGE TECH, who provided insights into advanced software development practices; Mr. Shivam Chavan, Unity and Software Developer, who enriched the sessions with his knowledge of interactive and immersive technologies; Mr. Sagar Patkar, Android and Software Developer, who guided participants through modern mobile application development; and Mr. Suryakant Nawle, a seasoned educator and technical leader, who shared his vast academic and professional experience. Their combined expertise elevated the FDP, making it a valuable and impactful learning experience for all attendees.

FOUNATION OF CORE TECHNOLOGIES

Day 1

23/06/2025

Day 1 of the TechBridge FDP, themed “Introduction to Emerging Technologies,” set a strong foundation for the week-long programme. The day began with the registration and an inaugural ceremony, followed by a warm welcome address delivered by the organizing committee. The highlight of the morning session was the insightful keynote address by Mr. Rahul Gupta, who spoke on “Current Trends in Information Technology” and provided participants with a clear understanding of how core technologies are shaping the future of the industry. The session also included an overview of essential technological domains and their real-world industrial applications.

In the afternoon, participants engaged in an interactive session focused on “Setting Up the Development Environment,” where they learned the importance of preparing technical tools for effective development workflows. This was followed by a hands-on workshop on basic programming fundamentals, enabling attendees to strengthen their foundational coding skills through practical exercises. The first day concluded with an enthusiastic response from participants, setting an energetic tone for the rest of the FDP.

SOFTWARE DEVELOPMENT PARADIGMS

Day 2

24/06/2025

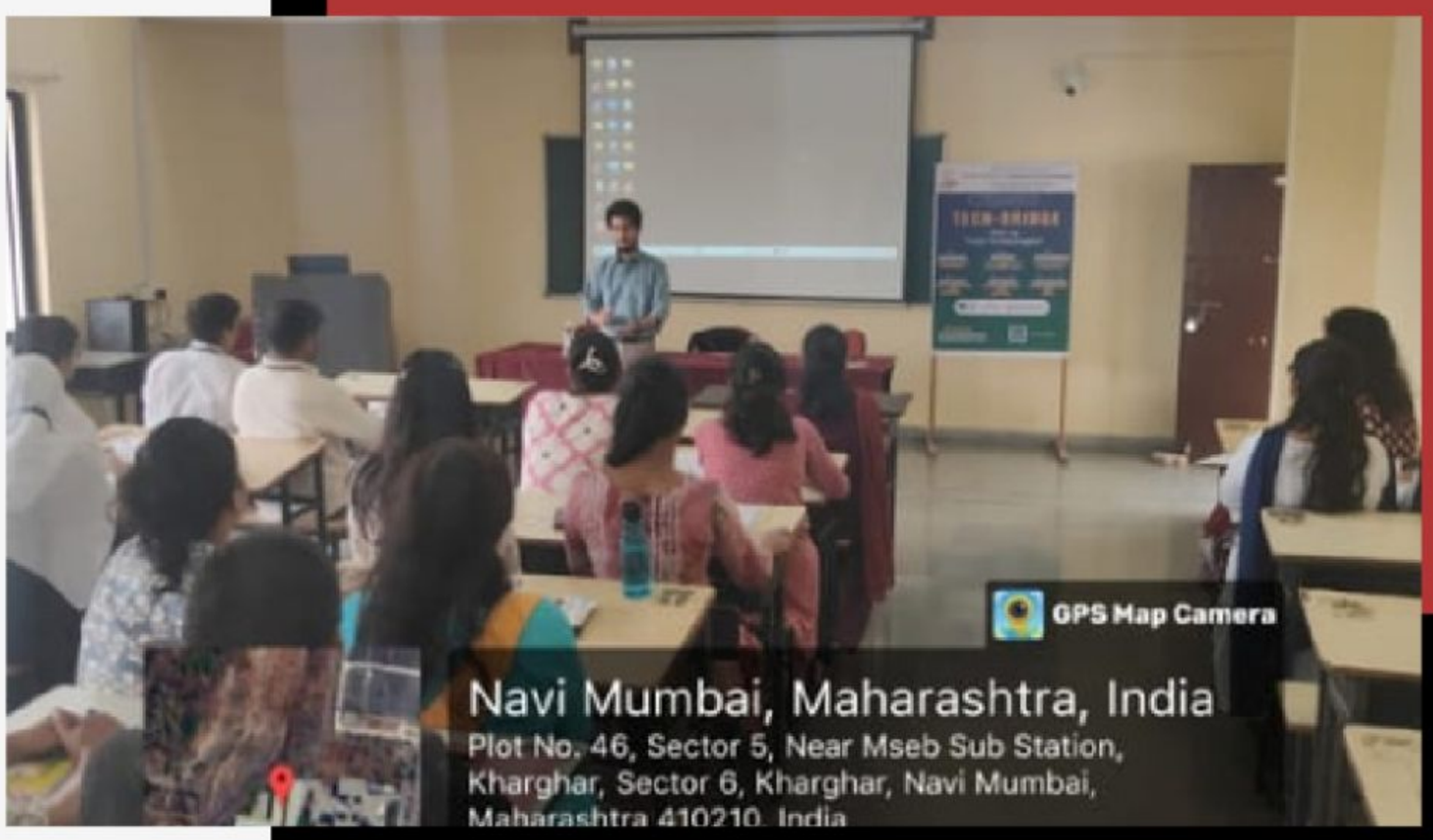
Day 2 of the TechBridge FDP, held on 24th June 2025 and themed “Modern Software Engineering Practices,” focused on strengthening participants’ understanding of contemporary development methodologies. The morning session featured an enriching talk by Mr. Raj Sinha on “Enterprise Software Development,” where he highlighted industry-standard best practices, efficient development workflows, and the importance of version control systems in enabling seamless collaborative programming. His session helped participants gain clarity on structured software engineering processes crucial for large-scale projects.

The afternoon session continued with a hands-on workshop on software architecture, allowing participants to explore design principles essential for building robust applications. This was followed by an engaging segment on code review techniques and quality assurance practices, emphasizing the role of clean, maintainable code in professional development environments. The day concluded with industry case studies and discussions on project management strategies, giving attendees practical insights into real-world software development scenarios.

GAME DEVELOPMENT AND UINITY

Day 3

25/06/2025



Day 3 of the TechBridge FDP, conducted on 25th June 2025 with the theme “Interactive Application Development,” immersed participants in the dynamic world of game development and real-time interactive technologies. The morning session was led by Mr. Shivam Chavan, who delivered an insightful presentation on “Unity Game Development Fundamentals.” He introduced participants to the functioning of game engines, the game development lifecycle, and the foundational principles behind creating 2D and 3D interactive experiences. His session offered a clear pathway for understanding how modern games and simulations are designed from concept to execution.

The afternoon session brought participants into a practical learning environment with a hands-on Unity workshop. Under guided instruction, attendees created basic interactive applications while gaining experience in essential features such as scene building, scripting, and user interaction. The session also focused on asset management and optimization techniques—skills necessary for developing smooth, efficient, and visually engaging applications. The third day proved to be highly engaging, sparking creativity and technical curiosity among the participants.

MOBILE APPLICATION DEVELOPMENT

Day 4

26/06/2025

Day 4 focused on the rapidly evolving domain of Android application development, offering participants an in-depth understanding of mobile technologies. The morning session was conducted by Mr. Sagar Patkar, who delivered a comprehensive session on “Android Application Development.” He covered crucial concepts such as modern mobile app architecture, design patterns, and best practices for building scalable applications. Participants also learned about user interface design principles tailored for diverse mobile platforms, emphasizing usability and responsiveness.

The afternoon session featured a practical workshop where attendees engaged in hands-on Android development tasks, including UI creation, feature integration, and project structuring. They also explored database connectivity, API consumption, and backend communication essential for real-time applications. The session concluded with guidance on app deployment and distribution strategies, helping participants understand the complete lifecycle of mobile application development from concept to release.

INTEGRATOINO AND FUTURE PRESPECTIVE

Day

27/06/2025

The final day of the TechBridge FDP focused on bringing together all the technologies explored throughout the week. The morning session featured an insightful talk by Mr. Suryakant Nawle on “Educational Technology Leadership,” where he emphasized the role of educators in adapting to technological shifts. This was followed by an enriching panel discussion with all the resource persons, highlighting how various technologies integrate in real-world projects and the industry’s evolving expectations for technical skills.

In the afternoon session, participants presented their projects, showcasing the knowledge and skills acquired during the programme. This was followed by a detailed feedback and evaluation session to help participants improve further. The day concluded with a certificate distribution ceremony and heartfelt vote of thanks, officially marking the successful completion of the week-long FDP.

BAJA MANAGEMENT

01/08/2025

On 1st August 2025, a focused presentation on the Bajaj Management System was held from 11:00 AM to 2:00 PM in the SIOT Seminar Room 211. The session emphasized how the system is designed to enhance operational efficiency, strengthen decision-making, and promote sustainable business growth. Key features discussed included continuous research and development, the implementation of lean manufacturing and just-in-time inventory management, and an optimized supply chain aimed at reducing costs and improving delivery timelines. Additionally, the system enhances the distribution network through dealer showrooms and online purchase facilities, supported by strong financial management to streamline inventory control and customer financing.

The implementation approach is organized into four structured phases process analysis, system design, implementation with adequate training, and ongoing performance evaluation. This phased strategy ensures effective adoption and continuous improvement across the organization. The Bajaj Management System is expected to deliver significant benefits such as improved efficiency, better data-driven decision-making, enhanced customer satisfaction, and substantial business growth. Overall, the system holds tremendous potential to transform organizational operations and contribute to long-term success.

INDUSTRIAL TRAINING

The Industrial Training (ITR) program, commencing on June 1st, emphasizes disciplined learning and professional development. As part of the training requirements, students must maintain a detailed diary documenting their daily tasks, observations, challenges, and key learnings from Monday to Friday. These reflective entries serve as an essential tool for tracking progress and will play a vital role in preparing the final training report. Both mentors and industry supervisors will review the diary regularly to ensure consistent growth.

Training sessions will be conducted on alternate days—Monday, Wednesday, and Friday—and students are expected to carry their laptops and maintain punctuality. Attendance is compulsory and will be shared with parents through Google Photos for transparency and accountability. Any difficulties faced during the training should be immediately communicated to the assigned mentors. Important notifications and updates regarding the ITR will be circulated through official groups, and students are advised to stay attentive.

SARASWATI Education society's

SARASWATI Institute of Technology

Kharghar, Navi Mumbai - 410 210

Department of Information Technology

Third Year Toppers

BATCH 2024 - 25

Aditya Kumkar

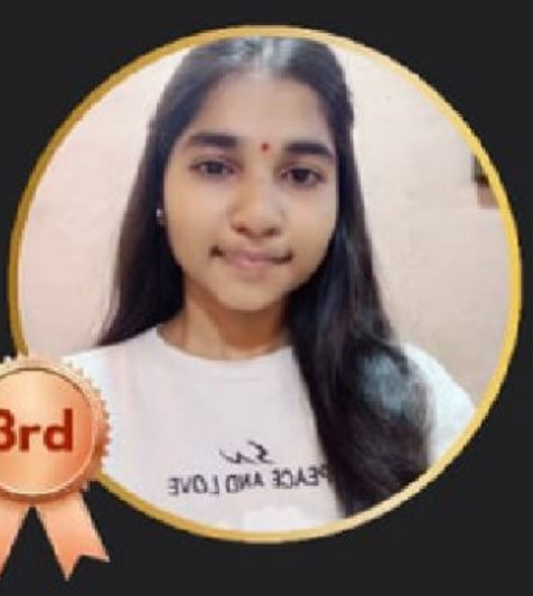
91.00%

Agg. %ile

Shreyas Karangutkar

89.75%

Agg. %ile



Apeksha Tandel

89.50%

Agg. %ile

HEARTY CONGRATULATIONS !!

SARASWATI Education society's

SARASWATI Institute of Technology

Kharghar, Navi Mumbai - 410 210

Second Year Toppers

BATCH 2024 - 25

Dimpal Chaudhari

86.47%

Niyati Gawand

85.18

Hetal Pawar

84.71

Eisha Jadhav

84.71

Sanskruti Thorat

84.71

HEARTY CONGRATULATIONS !!

STUDENT ACHIEVEMENT

Saraswati College student Lavanya Mhatre from SYIF has been certified as the winner in the 100M, 200M, and high jump events.

Information Technology Department

Email: jyoti.shinde@sce.edu.in
Website: www.siot.org.in

Contact Number: +91 8291702022
Address: Plot No. 46, Sector - 5, Near M.S.E.B. Sub Station Kharghar, Navi Mumbai - 410210

SARASWATI INSTITUTE OF TECHNOLOGY