Our Pride

ADDON COURSES 2024

SPECIAL ADDON COURSE's 2024 was organized by Department Engineering on 18/03/2024 to 20/03/2024.

of Computer

In this Addon Course lists we have conducted following topics -

- 1 Introduction to Programming and IT Culture in Industry
- 2 Introduction to Embedded Systems and Design
- 3 Python and Ethical Hacking
- 4 Data Analytics with Tableau
- 5 Introduction to Core Java with OOP's Concept
- 6 Soft Skills
- 7 Interview Aspects

1. Introduction to Programming and IT Culture in Industry

Programming, or coding, is the process of creating instructions that a computer can follow to perform specific tasks. It involves writing code in various programming languages, each with its own syntax and rules. The purpose of programming is to solve problems, automate tasks, and create software applications that can be used in various domains, from web development to data analysis, artificial intelligence, and more.

Key Concepts in Programming:

- 1. Algorithms and Logic: Algorithms are step-by-step procedures or formulas for solving problems. Understanding how to design and implement algorithms is fundamental to programming. Logic is used to create conditions and control the flow of the program.
- 2. **Programming Languages:** Different languages are suited to different tasks. Popular languages include:

- Python: Known for its simplicity and readability, widely used in web development, data science, and automation.
- Java: Object-oriented and widely used in enterprise environments and Android app development.
- o JavaScript: Essential for web development, enabling interactive websites.

C/C++: Known for performance and control, often used in system/software development.
Development Environments: Tools and environments that facilitate coding, such as Integrated Development Environments (IDEs) like Visual Studio Code, PyCharm, and Eclipse.

- 4. **Debugging and Testing:** Identifying and fixing errors in code, and testing to ensure the program runs as expected.
- 5. Version Control: Systems like Git help manage changes to code over time, facilitating collaboration among multiple developers.
- 6. Software Development Methodologies: Approaches like Agile, Scrum, and DevOps promote efficient and effective software development and deployment processes.

IT Culture in Industry

The culture within the Information Technology (IT) industry is characterized by several key elements that define how professionals work, collaborate, and innovate. This culture is influenced by rapid technological advancements, the need for continuous learning, and the emphasis on collaboration and innovation.

Key Elements of IT Culture:

- 1. Collaboration and Teamwork: IT projects often require multidisciplinary teams working together. Effective communication and collaboration tools (e.g., Slack, Jira) are essential.
- 2. **Continuous Learning and Adaptation:** The IT industry evolves quickly. Professionals must keep up with new technologies, languages, and methodologies through continuous education and training.
- 3. Innovation and Creativity: The industry thrives on innovation. Companies encourage creative problem-solving and often have dedicated time for employees to work on personal or experimental projects (e.g., Google's 20% time).
- 4. Agility and Flexibility: Agile methodologies emphasize iterative development, flexibility, and responsiveness to change. This mindset is crucial for delivering high-quality software quickly.
- 5. Open Source and Community Involvement: Many IT professionals contribute to opensource projects. This involvement fosters a sense of community and shared purpose, driving collective progress.
- 6. **Diversity and Inclusion:** Emphasizing a diverse workforce brings various perspectives and ideas, enhancing creativity and problem-solving.

- 7. Work-Life Balance and Well-being: With the high demands of the IT industry, companies are increasingly recognizing the importance of work-life balance, offering flexible work hours, remote work options, and wellness programs.
- 8. Security and Ethical Considerations: As technology impacts more aspects of life, IT professionals must prioritize security and ethical considerations in their work to protect data and ensure privacy.

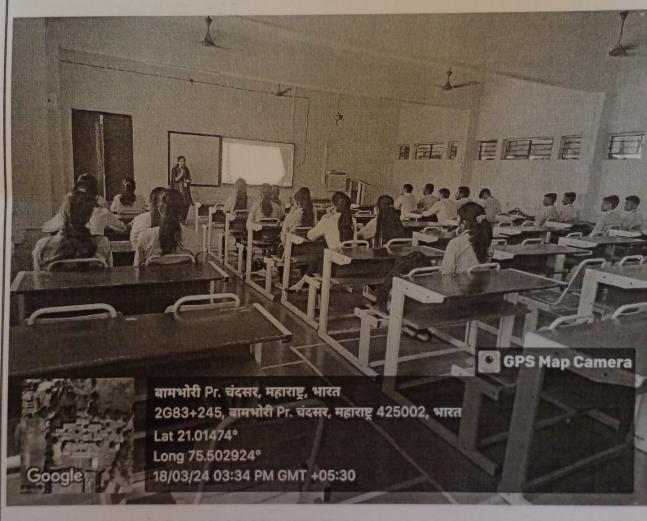
By understanding programming fundamentals and the culture of the IT industry, individuals can better prepare for successful careers in technology, contributing effectively to the dynamic and innovative landscape of IT.



Session Delivered By Mr. Pramod B. Gosavi.

2. Introduction to Embedded Systems and Design :-

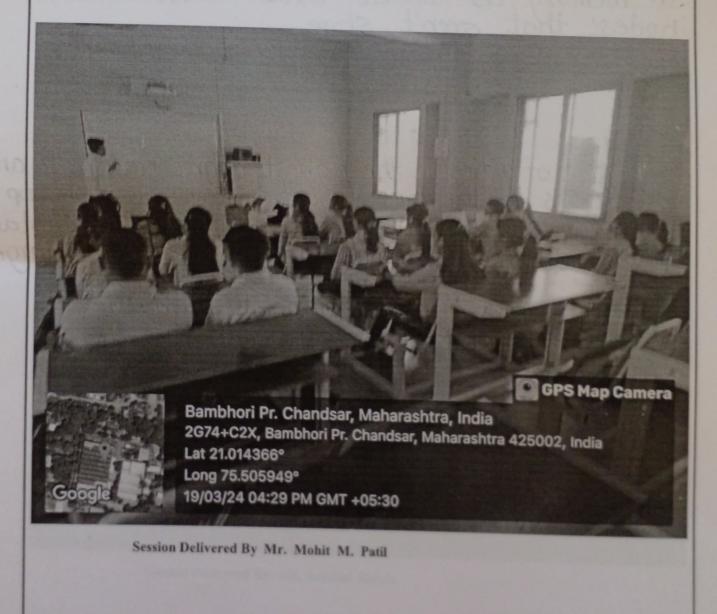
An embedded system is a microprocessor-based computer hardware system with software that designed to perform a dedicated function, either as an independent system or as a part of a large system. At the core is an integrated circuit designed to carry out computation for real-time operations. An embedded system design process is how a manufacturer determines the requirements for a small computerized system embedded within a product. Then, they decide the best way to build that system and test that it works. In an embedded system, hardware an software work together. These embedded systems can work without human intervention or with little human intervention.



Session Delivered By Ms. Mayuri R. Chandratre

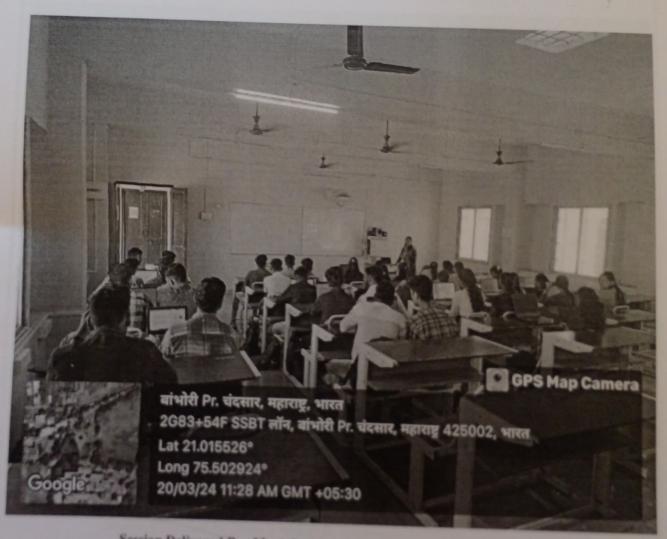
3. Python and Ethical Hacking:-

This Python add-on course is designed to enhance your programming skills by delving deeper into the Python language. It is suitable for those who have a basic understanding of Python and want to advance their knowledge for practical applications. This Ethical Hacking add-on course aims to provide students with a comprehensive understanding of cyber security principles and ethical hacking techniques. It is ideal for individuals who wish to pursue a career in cybersecurity or enhance their knowledge of network and system security.



4. Data Analytics with Tableau

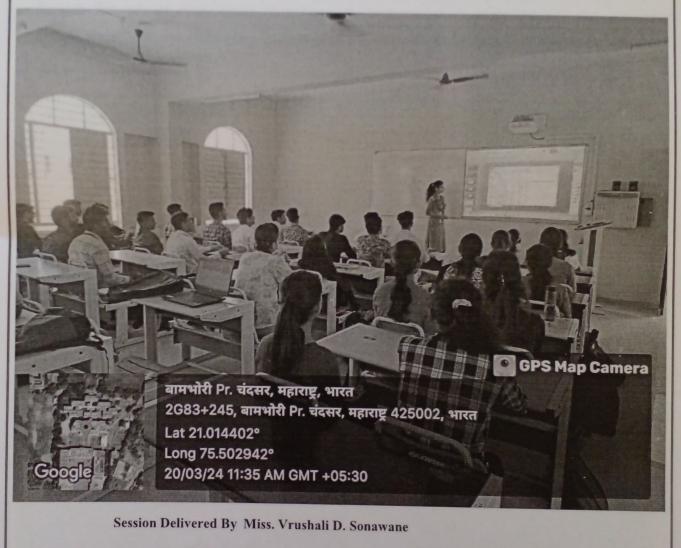
Tableau is a powerful data analytics and visualization tool that enables users to create interactive and shareable dashboards and reports. With Tableau, you can connect to various data sources, transform raw data into insightful visualizations, and uncover trends, patterns, and correlations in your data. Its user-friendly interface allows both technical and non-technical users to explore data, ask questions, and make data-driven decisions. Whether you're analyzing sales figures, tracking customer behavior, or monitoring business performance, Tableau offers a robust platform for exploring and communicating insights from your data.



Session Delivered By Ms. Ashwini Kakde

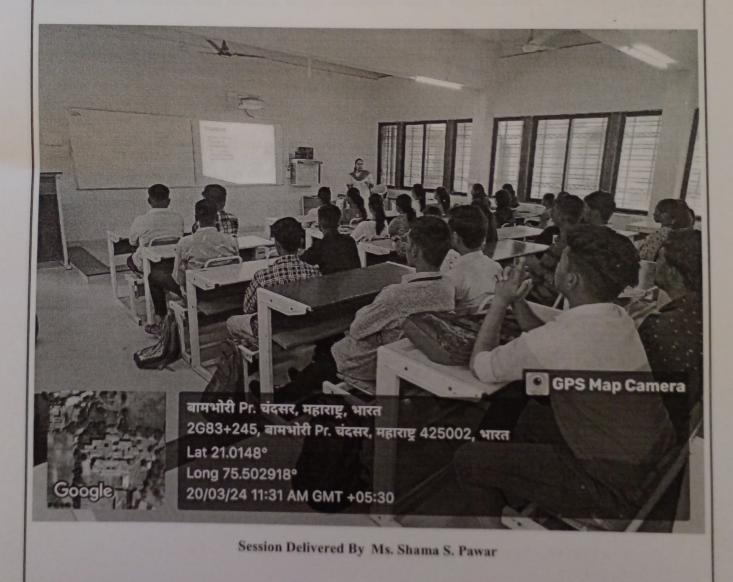
5. Introduction to Core Java with OOP's Concept:-

As the name suggests, <u>Object-Oriented Programming</u> or OOPs refers to languages that use objects in programming, they use objects as a primary source to implement what is to happen in the code. Objects are seen by the viewer or user, performing tasks assigned by you. Objectoriented programming aims to implement real-world entities like inheritance, hiding, polymorphism etc. in programming. The main aim of OOP is to bind together the data and the functions that operate on them so that no other part of the code can access this data except that function.



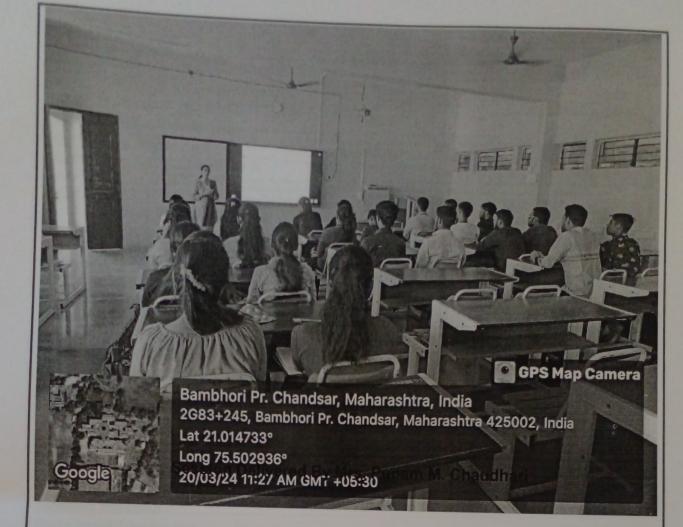
6. Soft Skills

The document emphasizes the significance of personal attributes and emotional intelligence, known as soft skills, in various aspects of professional and personal growth. It discusses the importance of qualities like communication skills, leadership, interpersonal skills, creativity, and problem-solving abilities. These skills are essential for teamwork, effective group discussions, and demonstrating leadership potential. Additionally, the document highlights the value of soft skills in creating a strong resume and LinkedIn profile to showcase one's capabilities. It underlines the role of these skills in enhancing communication, assertiveness, and problem-solving in group settings, ultimately contributing to personal and professional development.



7. Interview Aspects

When it comes to finding a job, accountability is key in ensuring that one is responsible for their performance and behavior. This includes doing thorough research about the company, understanding how one's career goals align with the company's mission, and being prepared for interviews by practicing answers and dressing appropriately. Additionally, being punctual is emphasized as an important skill that can lead to efficiency in one's schedule, saving money, and advancing in their career. Leadership qualities are highlighted as essential for driving change, promoting innovation, and making tough decisions within organizations. Open-mindedness is also stressed as a valuable trait that contributes to collaboration skills such as communication, adaptability, conflict resolution, and time management. Prioritizing tasks, dividing projects into smaller parts, and setting boundaries to reduce multitasking are recommended strategies for effective time management. It is important to set goals, review accomplishments, and make time for self-care in order to maintain productivity and reduce stress. In conclusion, having a positive attitude, being accountable for one's actions, and continuously seeking personal and professional development are essential for success in both personal and professional aspects of life.



Session Delivered By Ms. Punam Chaudahri

Contacts

SSBT's College of Engineering & Technology, Bambhori, Post Box No. 94, Jalgaon - 425001 (M.S.) Tel.: 0257 - 2258393 / 94 / 95 Fax: 0257 - 2258392 Website: www.sscoetjalgaon.ac.in Youtube: SSBT's WORLD - link: https://www.youtube.com/results?search_guery=ssbt+world Facebook : SSBT's COET Bambhori Jalgaon - Link:https://www.facebook.com/SSBTCOETOfficial/

Dr. Manoj E. Patil

Asso. Professor & Head Computer Engineering Department SSBT's College of Engineering & Technology Bambhori, Post Box.No.94, JALGAON - 425 001 (MS) (M) 9420107905/9284034473 Email: patil.manoj@sscoetjalgaon.ac.in

Youtube: SSBT's WORLD - link: <u>https://www.youtube.com/results?search_query=ssbt+world</u> Facebook : SSBT's COET Bambhori Jalgaon - Link:<u>https://www.facebook.com/SSBTCOETOfficial/</u>

Dr. Surendra P.Ramteke Assistant Professor Department Training and Placement Coordinator Computer Engineering Department SSBT's College of Engineering & Technology Bambhori, Post Box.No.94, JALGAON - 425 001 (MS) (M) 9423432362 Email: ramteke.surendra @sscoetjalgaon.ac.in