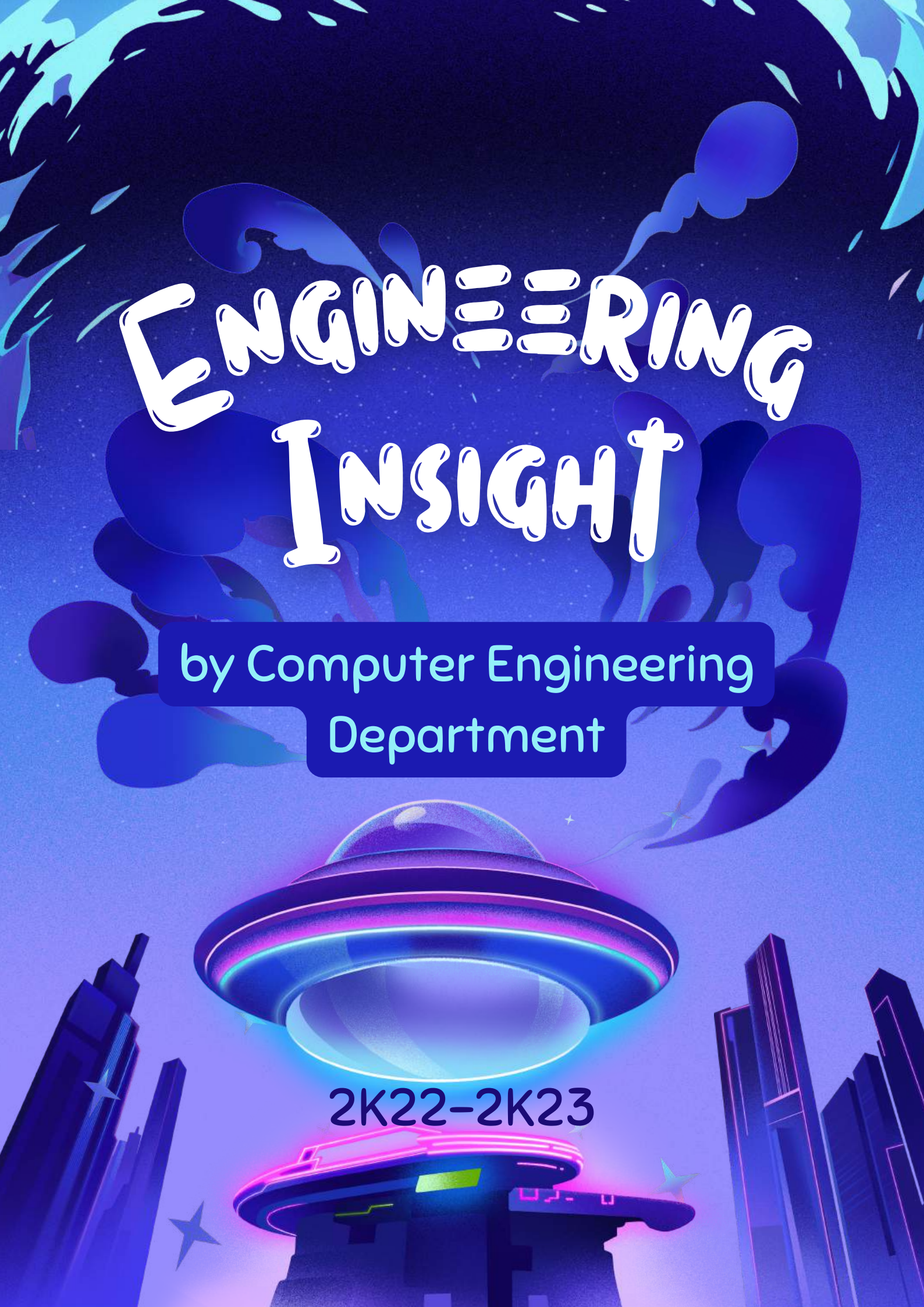




ENGINEERING INSIGHT

by Computer Engineering
Department

2K22-2K23

Vision and Mission

Vision

- ★ To impart knowledge and skills needed in the field of computer engineering to serve the society.

Mission

- M1** – To equip students with technical knowledge and interpersonal skills.
- M2** – To uplift technical skills to solve computer engineering problems.
- M3** – To prepare students for productive careers and life-long learning.



PEO's and PSO's

PEO's

PEO1 – Involve in professional development and adapt to emerging technologies.

PEO2 – Exhibit leadership qualities with ethics and soft skills.

PEO3 – Develop a positive attitude towards lifelong learning and succeed in industry.

PSO's

PSO1 – Computer languages and Database Engineering – Develop and demonstrate Applications and software programs to exhibit software engineering skills.

PSO2 – Hardware maintenance and networking – Maintenance of computer Hardware components and network configuration.



Faculty

- 1.Mr. Amar R. Sawant – HOD
- 2.Mr. A . A. Paritekar – Lecturer
- 3.Mr. A.R Sawant – Lecturer
- 4.Mr. A . A. Patil – Lecturer
- 5.Ms. .M . M. Powar – Lecturer
- 6.Mr. S . G. Shelar – Lecturer
- 7.Mrs. A .T. Kulkarni – Lecturer



Student Article

“Artificial Intelligence: Transforming the Future of Computing”

Artificial Intelligence (AI) is one of the most significant innovations in the field of computer engineering. It refers to the capability of machines to imitate human intelligence, including learning, reasoning, problem-solving, and decision-making. With advancements in computing power, data availability, and algorithms, AI is transforming the future of computing and modern technology.

The concept of AI was introduced in the mid-20th century, but early systems were limited by hardware and data constraints. Today, AI has evolved rapidly due to the development of machine learning and deep learning techniques. Machine learning allows systems to learn from data without explicit programming, while deep learning uses neural networks inspired by the human brain to handle complex tasks. Technologies such as Natural Language Processing and Computer Vision further enhance AI's ability to understand language and visual information.

AI has found applications in almost every domain. In healthcare, it helps in disease diagnosis and medical imaging. In cybersecurity, AI systems detect threats and prevent attacks. Software development benefits from AI through automated testing, bug detection, and code optimization. AI also plays a key role in transportation, finance, education, and smart city development.

The advantages of AI include high efficiency, accuracy, automation of repetitive tasks, and the ability to process large volumes of data. However, AI also faces challenges such as high development costs, ethical concerns, data privacy issues, and potential job displacement.

In the future, AI is expected to become more intelligent, ethical, and energy-efficient. For computer engineering students, understanding AI is essential, as it forms the foundation of next-generation computing systems and technological innovation.

–Pawan Dinesh Malagavi
(Student TYCO)

Faculty Article

“Cybersecurity Challenges in Modern Network Systems”

In the digital era, modern network systems form the backbone of communication, business operations, and information exchange. With the rapid growth of the internet, cloud computing, and connected devices, network systems have become more complex and widespread. However, this expansion has also increased vulnerability to cyber threats, making cybersecurity one of the most critical challenges in computer engineering today.

Cybersecurity refers to the protection of network systems, data, and devices from unauthorized access, attacks, and damage. Modern networks face a wide range of cyber threats such as malware, ransomware, phishing attacks, denial-of-service (DoS) attacks, and data breaches. These threats are becoming more sophisticated due to the use of automation and artificial intelligence by attackers, making detection and prevention increasingly difficult.

One major challenge in modern network systems is the growing complexity of networks. Organizations now use hybrid infrastructures that combine on-premise systems, cloud services, and remote access. Managing security across such distributed environments is difficult, as a single weak point can expose the entire network.

Another significant challenge is data privacy and protection. Networks handle large volumes of sensitive information, including personal, financial, and corporate data. Cyberattacks that result in data breaches can cause financial losses, legal consequences, and damage to an organization's reputation. Ensuring data confidentiality while maintaining accessibility is a difficult balance for network administrators.

The Internet of Things (IoT) has further intensified cybersecurity challenges. Many IoT devices have limited processing power and lack strong security mechanisms, making them easy targets for attackers. Once compromised, these devices can be used to launch large-scale attacks such as botnet-based distributed denial-of-service (DDoS) attacks.

In conclusion, cybersecurity challenges in modern network systems continue to evolve with technological advancements. For computer engineering students, understanding these challenges and developing secure network solutions is vital. A proactive and layered security approach is essential to protect modern networks and ensure safe and reliable digital communication.

–Mr. Amar R. Sawant
(HOD Computer Engineering)

Chief Editor's Desk

The Computer Engineering Department is committed to fostering a rich learning environment that promotes technical excellence and practical knowledge. With the integration of modern computing technologies in day-to-day activities, the department continuously strives to enhance students' academic and professional growth.

Our curriculum is designed to provide students with strong diploma-level expertise and the essential skills required in the rapidly evolving field of computer science. The department aims to nurture students into competent hardware engineers, software developers, and future entrepreneurs, encouraging them to innovate and excel in their chosen paths



Mr. Amar R. Sawant
(HOD Computer Engineering)

Academic Achievements

MSBTE Winter 2022-23

TY Computer



Malgavi Pawan Dinesh

93.56%

Jondal Atharva Janik

92.33%



Patil Pruthiviraj Eknath

92%



SY Computer



Kiyani Suddhiksha Sagar

92%

Khorate Mitali Ujwal

90.53%



Ghorapade Sae Vikram Singh

89.87%



FY Computer



Kumbhar Pratik Sachin
89.43%



Jadhav Aditi Rajendra
87.43%



Ambale Mayuri Sashikant
86.29%



MSBTE SUMMMER 2022-23

TY Computer



Banne Ankush Dattaray
92.35%



Malghavi Pawan Dinesh
92.12%



Joshi Chaitanya Anil
89.88%



SY Computer



Powar Rushikesh Ranjit
86.93%



Khiyani Sudhiksha Sagar
86.93%



Narsugade Priya Pramod
85.33%



FY Computer



Kumbhar Pratik Sachin
89.63%



Karande Sujal Vijaykumar
86.25%



Boloikar Siddhi Sanjay
85.12%

Co-Curricular Achievements

Winter

1. Parth Bajarang Nilkanth – Runner Up – Technical ICRE held at ICRE, Gargoti.
2. Ketki Shinde – Runner Up – Poster Presentation held at ICRE, Gargoti.
Shruti Uttam Desai – Runner Up – Poster Presentation held at ICRE, Gargoti.
4. Rushikesh Rajeet Powar – Runner Up – Technical Coding held at DKTE.
5. Parth Bajarang Nilkanth – Runner Up – Technical Coding held at DKTE.
6. More than 7 students participated in Technical events held at Institute of Civil and Rural Engineering, Gargoti
7. More than 8 students participated in Technical events held at DKTE.
8. More than 4 studnets participated in Technical events held at Sharad Institute if Technology, Polytechnic Ichalkaranji.

Summer

1. Rushikesh Rajeet Powar – winner – in Technical SIT / Technical GPKP held at SIT Yadrav, GPKP.
2. Rushikesh Rajeet Powar – winner – in Paper Presentation held at ICRE, Gargoti.
3. Swapnil Sunil Dalvi – winner – Paper Presentation AMP/ Paper Presentation PVPI held at AMP, PVPIT.
4. Sae Vikramsinh – winner – Paper Presentation held at ICRE, Gargoti.
5. Swapnil Sunil Dalvi – Runner Up – held at ICRE, Gargoti.
6. Mrunal G Bhakare – Runner Up – held at AMP.
7. More than 10 students participated in Paper Presentation competition organized by Computer society of India held at Institute of Civil & Rural Engineering, Gargoti.
8. More than 3 students participated in Technical coding competition organized by Rudra Infotech held at Ashokrao Mane Polytechnic Vathar.
9. More than 4 students participated in Project presentation organized by Coding Club held at D Y Patil College of Engineering & Technology, Kasaba Bawada.

Sports Achievements

Winter



1. Rutuja Rangrao Bedage (SYCO), Sanskruti Suresh Patil (SYCO), Janhavi Chandrakant Chavan (SYCO), Samrudhi Shashikant Majgaonkar (SYCO), Samrudhi Pradip Lohar (SYCO), Vaijanta Jitendra Kamble (SYCO), Riya Ravindra Kadav (SYCO) – Participation – Kho-Kho W1-Zone (IEDSSA) – Latthe Polytechnic, Sangli.

2. Janhavi Chandrakant Chavan (SYCO), Kirti Bhagwan Lohar (FYCO) – Participation – Badminton W1-Zone (IEDSSA) – Latthe Polytechnic, Sangli.

3. Priya Pramod Narsugade (SYCO), Janhvi Chandrakant Chavan (SYCO), Shreya Bajirao Shenavi (SYCO), Sanskruti Suresh Patil (SYCO) – Participation – Athletics W1-Zone (IEDSSA) – Latthe Polytechnic, Sangli.

Summer

1. Katre Amit Bandu (TYCO) – Winner – Athletics Inter-Zonal (IEDSSA) – Shri Ramchandra Polytechnic, Lonikand, Pune.

2. Katre Amit Bandu (TYCO) – Winner – Athletics B1-Zone (IEDSSA) – ICRE, Gargoti.

3. Mulik Adiraj Ajit (TYCO) – Participation – Athletics B1-Zone (IEDSSA) – ICRE, Gargoti.
Polytechnic, Atigre.

4. Gaikwad Vaibhav Shashikant (SYCO) – Participation – Athletics B1-Zone (IEDSSA) – ICRE, Gargoti.

5. Dalvi Swapnil Sunil (SYCO) – Participation – Athletics B1-Zone (IEDSSA) – ICRE, Gargoti

6. Patil Harshvardhan Sarjerao (TYCO), Patil Prafulla Bajirao (FYCO), Bade Siddharth Niwas (SYCO) – Participation – Kabaddi B1-Zone (IEDSSA) – Vidhyavardhini Institute of Technology, Pal, Gargoti.

7. Gaikwad Vaibhav Shashikant (SYCO), Banne Ankush Dattatray (TYCO), Sangaonkar Rugved Sachin (FYCO), Deshpande Rudra Ramesh (TYCO) – Participation – Cricket B1-Zone (IEDSSA) – Sanjay Ghodawat Polytechnic, Atigre.



Extra Curricular

Winter

1. Dr. Bapuji Salunkhe Institute of Engineering & Technology, Kolhapur and Bit's Techno, Kolhapur believe that for the industrial growth of Maharashtra and for the industries to meet the challenges of new technology, there is a need for constant development and up gradation of technical skills. (Here in after they are referred to as BSIET, Kolhapur and Bit's Techno, Kolhapur)

Both believe that the close co-operation between the industry and the technical training institutions in state would be of great mutual benefit. Students passing out the technical institutions have key role to play in the technological up gradation, innovation and internal as well as international competitiveness of the industry in Maharashtra.

Accordingly hereby enter into a Memorandum of Understanding as set out in the following areas -

- Human Resource Development by training of the faculty, industrial manpower, students and workers.
- Utilization of Infrastructural Facilities.
- Exchange of Information & Technology Transfer.
- Continuing Education Programmes.
- Organising Industrial Visits, Workshops, Seminars & Expert Lectures.
- Implementing and Reviewing Targeted Interactions.

2. The Computer Engineering Department, in collaboration with the Success Foundation, organized a distribution program for school students from economically weaker sections. During this social outreach activity, essential study materials including notebooks and pens were distributed to support their academic needs. This initiative reflects our department's commitment to community welfare and its continuous efforts to encourage and promote education among underprivileged students.



3. The Computer Engineering Department, in collaboration with the Success Foundation, organized a special distribution program on the occasion of Ganesh Chaturthi. As part of this initiative, drawing books, notebooks, colors, and pens were distributed to school children to encourage creativity, learning, and artistic expression. This activity reflected the department's commitment to community service and aimed to bring joy and educational support to young students during the festive season.



Summer

1. Dr. Bapuji Salunkhe Institute Of Engineering & Technology, Kolhapur and iGAP Technologies Pvt. Ltd., Kolhapur believe that for the industrial growth of Maharashtra and for the industries to meet the challenges of new technology, there is a need for constant development and up gradation of technical skills. (Here in after they are referred to as BSIET, Kolhapur & Domain Computers, Kolhapur)

Both believe that the close co-operation between the industry and the technical training institutions in state would be of great mutual benefit. Students passing out the technical institutions have key role to play in the technological up gradation, innovation and internal as well as international competitiveness of the industry in Maharashtra.

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- Continuing Education Programmes.
- Organising Industrial Visits, Workshops, Seminars & Expert Lectures.
- Implementing and Reviewing Targeted Interactions.

2. On the occasion of Gandhi Jayanti and Lal Bahadur Shastri Jayanti, the Computer Engineering Department organized a fruit distribution drive at Dnyan Prabodhan Sanchalit Andhshala. As part of this social welfare initiative, fresh fruits were distributed to the students to promote health, nutrition, and the spirit of compassion and service. This activity aimed to honor the values and teachings of these great national leaders while contributing to the well-being of the students at the school.



Industrial Visit

Winter

Industry Name: TCognition Software company in Kolhapur, Maharashtra



Class: TY

The industrial visit was conducted on 10/9/2023 at TCognition Software company in Kolhapur, Maharashtra, Dist. Kolhapur. It is a compulsory visit as part of curriculum of MSBTE for above subject.

Tcognition Software Company in Kolhapur is a well-established and aimed at understanding the dynamics of the IT industry, particularly in the context of software development and innovation. The visit began with a comprehensive overview of Tcognition, including its history, mission, and core values. Students learned about the company's focus on leveraging technology to solve complex business challenges and enhance customer experiences.

Showcased some of its flagship technologies and solutions during the visit. Students had the opportunity to see demonstrations of their software products, including AI analytics tools, data management platforms, and cloud-based applications. The emphasis on innovation and staying abreast of emerging technologies was evident throughout the presentation.

Industry Name: Radio Mirchi, ENILKolhapur

Class: SY

The industrial visit was conducted on 12/10/2023 at Radio Mirchi ENIL, Blok No 301, 3 Rd Floor, Eternity Square Building, Cs No 2150 A/1A, E Ward, Tarabai Park, Kolhapur416003. It is a compulsory visit as part of curriculum of MSBTE for above subject.

Radio Mirchi also known as 98.3 Mirchi, is a nationwide network of private FM radio stations in India. It is owned by the Entertainment Network India Ltd (ENIL), which is one of the subsidiaries of The Times Group.

The Radio Mirchi started in 2007 as an FM radio station in Kolhapur. Its Frequency is 98.3 Manish explained how the FM works. What all program is scheduled and provides all technical knowledge. He explained to the student FM tower is located at Panhala and the range of Kolhapur Mirchi. The DataBase Management System various concept got cleared as student got interested and interacted well with engineer.

Summer

Industry Name: Gokul Milk Plant



Class: TY

CSE students visited the Gokul Milk Plant to understand how technology supports large-scale dairy operations. They observed processes like milk collection, pasteurization, automated packaging, and quality control systems. The visit helped students learn about industrial automation, data management, and real-time monitoring used in modern dairy plants.

Industry Name: BHIMMA RIDDHI INFOTAINMENT Pvt. Ltd (B NEWS CHANNEL)



Class:SY

The industrial visit was conducted on 07/02/2023 at BHIMMA RIDDHI INFOTAINMENT Pvt. Ltd(B NEWS CHANNEL Kolhapur 416003. It is a compulsory visit as part of curriculum of MSBTE for above subject.

B News channel is One of the oldest News channel of Kolhapur. In this industrial visit student understood how information is collected converted into news and then how the news is broadcasted live. It's a big channel where each of the department work to convert the information into proper and interesting headline. The student interacted nicely with the engineer over there and understood the software used. Student also come to know how all the data is shared in network. In fact, they showed us the there database system where all the information, movies advertisement is stored.

The background is a deep blue gradient with a subtle starry pattern. In the top-left corner, there are several white, multi-pointed star shapes. In the top-right corner, there is a stylized circuit board design with blue lines and dots. In the bottom-left corner, there is a stylized circuit board design with white lines and dots. In the bottom-right corner, there are several white, multi-pointed star shapes.

Thank you

“Computer engineering transforms
curiosity into innovation and challenges
into breakthroughs.”