Marathwada Mitra Mandal's Polytechnic

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132KV MSETCL RAHATANI SUBSTAION. VISIT OF SY EE

09 Mar 2023

Industrial Visit Report: 132kV MSETCL Rahatani Substation

Date of Visit: 9th March 2023 Time of Visit: 11.00 am to 3.00 pm Place of Visit: 132kV MSETCL Rahatani Substation Class: SY Electrical Staff: Mali SP, Engle AP, and Bhor TG Cost per student: 118 Rs

Introduction: On 9th March 2023, a group of SY Electrical students from XYZ College visited the 132kV MSETCL Rahatani Substation. The purpose of the visit was to learn about the electrical power substation, transformers, CT, PT, circuit breaker, isolator, and related equipment. The students were accompanied by their professors, Mali SP, Engle AP, and Bhor TG, and were guided by the engineers working at the substation.

Body: The 132kV MSETCL Rahatani Substation is an important component of the power grid system. The substation receives electricity from the high voltage transmission lines and distributes it to the lower voltage distribution lines. During the visit, the students learned about the different types of equipment used in the substation, such as transformers, circuit breakers, isolators, and lightning arresters. They also observed how the engineers carried out routine maintenance activities such as checking the oil levels in transformers, cleaning the insulators, and tightening the electrical connections.

One of the highlights of the visit was the demonstration of the substation automation system. The students were shown how the system monitors and controls the various equipment in the substation and how it helps to improve the efficiency and reliability of the power supply. They also learned about the different protection schemes used to safeguard the substation equipment and prevent any damage due to faults or overloading.

Conclusion: The visit to the 132kV MSETCL Rahatani Substation was an informative experience for the students. They gained practical knowledge about the functioning of a substation and learned about the different technologies used to ensure the safe and efficient distribution of electricity. The visit also provided the students with an opportunity to interact with the engineers and ask questions about their work. Overall, it was a great learning experience for everyone involved.

Recommendation: We recommend that more such visits be organized for students so that they can gain practical knowledge about the industrial processes and systems. We also suggest that the substation should organize more interactive sessions for the students to better understand the functioning of the equipment and the technology used in the substation.

Acknowledgments: We would like to express our gratitude to the engineers at the 132kV MSETCL Rahatani Substation for their valuable guidance and support during the visit. We would also like to thank the management of the substation for allowing us to visit and learn about their operations. Finally, we thank our professors, Mali SP, Engle AP, and Bhor TG, for arranging this visit and providing us with a wonderful opportunity to learn.


MAHARASHTRA STATE
ELECTRICITY TRANSMISSION CO. LTD.


MAHARASHTRA STATE
ELECTRICITY TRANSMISSION CO.LTD.
22 KV GARRISON ENG
T/F No 1

SHIVJAYANTI 2023

10 Mar 2023

Subject: Celebration of Chhatrapati Shivaji Maharaj Jayanti 2023

Name of Event:-"Chhatrapati Shivaji Maharaj Jayanti 2023"

Date of Event:-10 March 2023 and 27 March 2023

Venue of Event:-M.M. Polytechnic Seminar hall for Drawing and Essay Writing Competition.

Chief Guest for the **Event:- Mrs. Geeta Joshi, Principal**

Brief Description of the Event:-

Drawing and Essay Writing Competition. In the Drawing competition, a total of 6 candidates participated. In the Essay writing competition, a total of 11 candidates participated.

After that procession of the Chhatrapati Shivaji Maharaj idol was arranged around the college campus, with traditional getup and Dhole and Lezim Pathak (Lezim was Played by Computer Students).

After the Event tea was arranged for all in the canteen.


MARATHWADA MITRA MANDAL'S POLYTECHNIC
छ.शिवाजी
महाराज
जयंती
2023


MARATHWADA MITRA MANDAL'S POLYTECHNIC,
Thergaon Pune-33
Institute
Vision
To nurture proficient technicians with sound ethical and social values contributing towards the welfare of masses.
Mission
M - Make ardent efforts to inculcate technical skills, social and ethical values among students.
M - Mould students to be competent technicians by imparting sound Theoretical, Analytical and Practical Knowledge
P - Permeate professional skills among students through Co-curricular and Extra-Curricular Activities

GIS SUBSTATION VISIT OF TY ELECTRICAL

11 Mar 2023

Report on Industrial Visit to 22/11KV TROPICA KIWALE GIS Substation

Introduction: On March 11, 2023, a group of 20 students from the Third Year Electrical Engineering Department of our institute visited the 22/11KV TROPICA KIWALE GIS Substation, located in the MSEDCL Bhosari Division, Pune. The purpose of the visit was to gain practical knowledge and understanding of the different equipment used in GIS substations.

Company Profile: The 22/11KV TROPICA KIWALE GIS Substation is a gas-insulated substation that supplies power to the surrounding areas. The substation is operated by Maharashtra State Electricity Distribution Company Limited (MSEDCL) and is equipped with state-of-the-art technology.

Visit Highlights: During the visit, Mr. Bhosale, the contact person from MSEDCL, gave us a detailed tour of the substation. He explained the functioning of different equipment such as gas-insulated switchgear, transformers, circuit breakers, and the substation automation system. He also gave us a demonstration of how the equipment was operated and maintained.

We were introduced to the SCADA system, which is used for monitoring and controlling the substation. We learned about the importance of the protection system and how it is used to ensure the safety of the substation and the equipment.

Learning Outcomes: The visit provided us with a practical understanding of the different equipment used in GIS substations. We learned about the functioning of gas-insulated switchgear and its advantages over conventional air-insulated switchgear. We also gained an understanding of the protection system and the importance of substation automation.

Conclusion: Overall, the industrial visit to 22/11KV TROPICA KIWALE GIS Substation was an enriching experience that provided us with practical knowledge and understanding of the functioning of gas-insulated substations. We are grateful to Mr. Bhosale and the MSEDCL for providing us with this opportunity. We would also like to thank our faculty members, Mr. T.V. Kadam, Ms. D.S. Bhosale, and Mrs. D.V. Wagh, for organizing the visit and guiding us throughout the tour.


महाराष्ट्र राज्य विद्युत वितरण कंपनी मर्य
३२/११ क.व्हो. जी.आय.एस.उपकेंद्र, टापिका,किवळे
विभाग-भोसरी, उपविभाग-प्राधिकरण, आस्था-देहुरोड


TELAWNE

INDUSTRY EXPERT LECTURE FOR FY SY AND TY ELECTRICAL.

25 Mar 2023

Industry Expert Lecture for FY SY and TY Electrical.

From Tejodeep Electrical team.

Mr. Deepak Subhedar.

Mr. Dnyaneshwar Kanse

Mr. Tejas Subhedar.

with Practical demonstration


MARATHWADA MITRA MANDAL'S POLYTECHNIC


PROTECTION PANEL FOR 3Ø INDUCTION MOTOR
MAIN INCOMER
VOLT METER
AMMETER
405
085
TO DIMMER INPUT
DOL STARTER


PROTECTION PANEL FOR 3Φ INDUCTION MOTOR
Chemistry


SWITCH GEAR TESTING KIT


SWITCH GEAR TESTING KIT


WELCOM

INTRODUCTION TO MICRO-CONTROLLER 8051 AND ITS APPLICATIONS

29 Mar 2023

On March 29, 2023, a guest lecture was held at the Electrical and Mechatronics department, introducing students to the concept of microcontrollers. The lecture was delivered by Sweta Desai, an expert in embedded systems and microcontrollers, to a group of SY Electrical, TY Electrical, and SY Mechatronics students.

The lecture began with an overview of microcontrollers, their applications, and the difference between microcontrollers and microprocessors. The speaker explained that microcontrollers are small computer systems that are designed to perform a specific task, while microprocessors are general-purpose computing devices. The speaker highlighted that microcontrollers are widely used in various fields such as home appliances, automobiles, medical devices, and industrial automation.

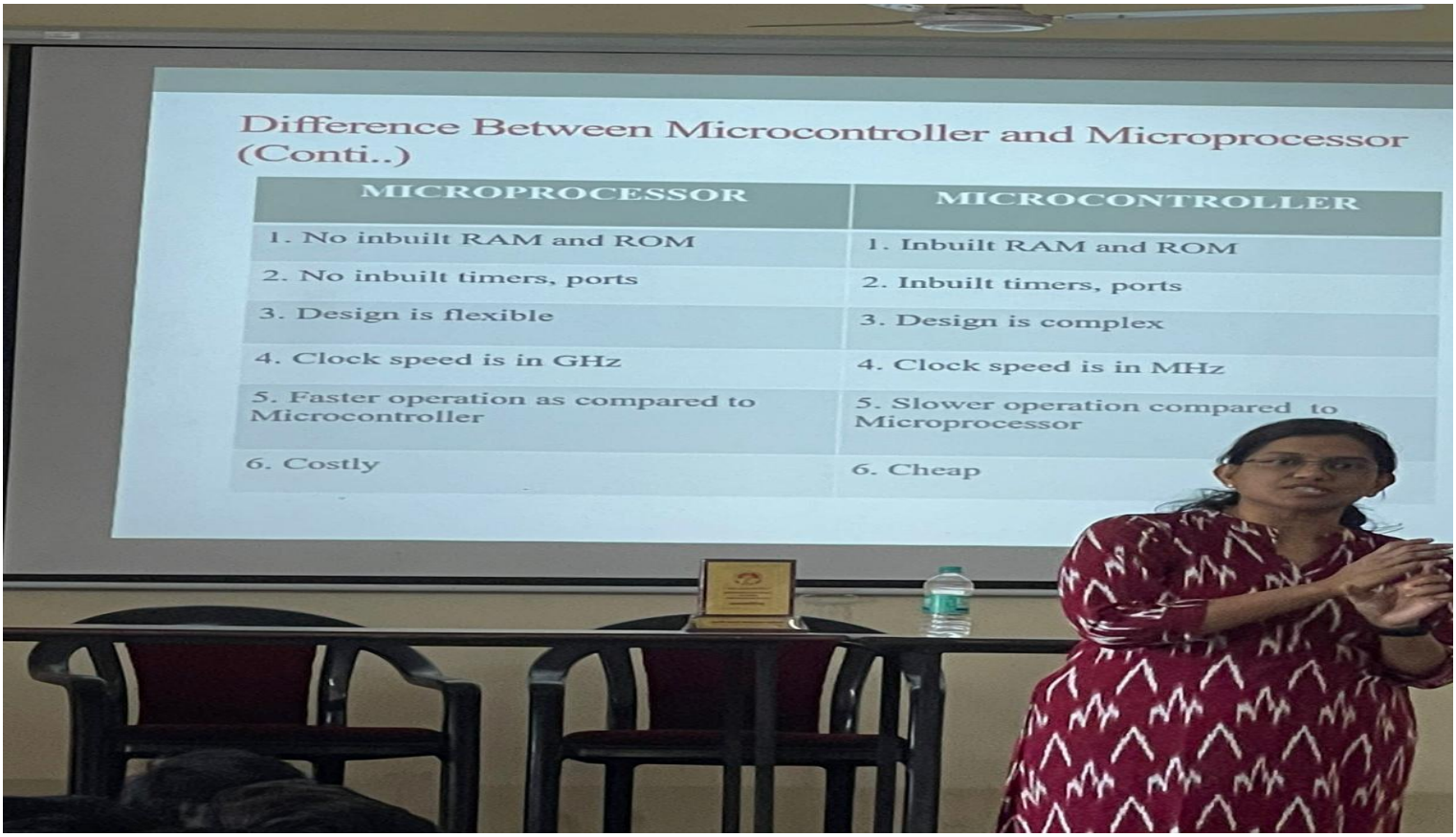
Next, the speaker delved into the architecture of microcontrollers, particularly focusing on the 8051 microcontroller. The students were given a brief overview of the 8051 microcontroller's features, such as its central processing unit (CPU), random-access memory (RAM), read-only memory (ROM), input/output ports, and timers/counters.

The speaker also provided an in-depth explanation of the pin diagram of the 8051 microcontroller and its associated functions. Students were given a detailed understanding of the various pins, including power supply pins, oscillator pins, reset pins, and input/output pins. The speaker highlighted the significance of each pin and its corresponding function in the microcontroller.

Towards the end of the lecture, the speaker discussed the various programming languages used for microcontrollers, such as assembly language and C language. The students were also given insights into the importance of efficient programming in microcontrollers to achieve optimal performance.

In conclusion, the lecture was an informative and insightful introduction to microcontrollers. The speaker, Sweta Desai, provided a clear and concise overview of microcontrollers, its architecture, and its programming languages. The lecture helped the students to understand the significance of microcontrollers in various fields and how they are different from microprocessors. The lecture ended with a question-answer session, where the students were able to clear their doubts and gain additional knowledge.


INTRODUCTION TO
MICROCONTROLLER 8051
Shweta Desai


Difference Between Microcontroller and Microprocessor (Conti..)
MICROPROCESSOR
MICROCONTROLLER
1. No inbuilt RAM and ROM
1. Inbuilt RAM and ROM
2. No inbuilt timers, ports
2. Inbuilt timers, ports
3. Design is flexible
3. Design is complex
4. Clock speed is in GHz
4. Clock speed is in MHz
5. Faster operation as compared to Microcontroller
5. Slower operation compared to Microprocessor
6. Costly
6. Cheap


WELCOM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INTRODUCTION TO
MICROCONTROLLER 8051


INTRODUCTION TO
MICROCONTROLLER 8051


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Difference Between Microcontroller and Microprocessor
MICROPROCESSOR
Arithmetic and Logic unit
Accumulator & Working registers
Program counter
Stack pointer
Clock Circuit
Interrupt circuit
MICROCONTROLLER
ALU
Timer/ Counter
IO ports
Accumulator
Internal RAM
Internal ROM
Interrupt Circuits
Stack pointer


INTRODUCTION TO MICROCONTROLLER 8051
Shweta Desai


INTRODUCTION TO
MICROCONTROLLER 8051
Shweta Desai

INTRODUCTION TO LV SWITCHGEAR

31 Mar 2023

Event Report: Introduction to LV Switchgear

On 31st March 2023, the "Introduction to LV Switchgear" workshop was held at the Switchgear Training Centre, T-156/157 Pune -411026. The purpose of the workshop was to introduce third and second-year students to the use, application, and practical use of low voltage switchgear. The workshop was paid for, and 27 students and three faculties attended the workshop.

The workshop began at 10:30 am and lasted until 1:00 pm, followed by a 45-minute lunch break. The session resumed at 1:45 pm and continued until 4:30 pm. The workshop covered a range of topics related to low voltage switchgear, including its basic principles, types, applications, and safety measures.

The workshop was led by experienced trainers with expertise in low voltage switchgear. The trainers used interactive teaching methods, such as case studies and demonstrations, to engage the participants and enhance their understanding of the subject matter.

Overall, the workshop was a success, as it provided participants with valuable insights into the practical application of low voltage switchgear. Participants gained knowledge and skills that would help them in their academic and professional pursuits.

In conclusion, the "Introduction to LV Switchgear" workshop was an informative and engaging event that achieved its objectives. We thank all the participants and trainers for their contribution to the success of the event.


10:45


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The purpose of learning is growth, and our minds, unlike our bodies, can continue growing as long as we
Mortimer Adler
Low Voltage Switchgear
L&T Electrical & Automation
Switchgear Training Centre