

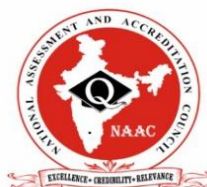


DVV CLARIFICATION

Report having

- List of activities
- Brochure
- Activity Details
- Photographs

Submitted to



NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL



**S.P.B. PATEL
ENGINEERING COLLEGE**
SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

Near Shanku's Water Park,
Ahmedabad – Mehsana Highway,
Linch, Mehsana – 384435
Email: info@saffrony.ac.in
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**CYCLE 1
NAAC Accreditation 2023**

Awareness of trends in technology

Submitted to



NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

5.1.2 Following capacity development and skills enhancement activities are organized for improving students' capability

4. Awareness of trends in technology

Year	Name of the capacity development and skills enhancement program	Period (from date - to date)	Number of students enrolled	Name of the agencies/experts involved with contact details (if any)
2023	Awareness session about ISRO	22 July 2023	60	Fiza Pathan
2023	Hands-On Session on Free CAD by Akruiti Anveshak Club	05 May 2023	21	Mr. Tanuj Baria
2023	Workshop on Web Development	26 April 2023	60	Prof. Upashana Goswami
2023	Digital Financial Frauds - Awareness Session	04 January 2023	49	Mr. Dhiren Parekh
2023	Workshop on "Total Station Survey"	18 May 2023	14	SPB Patel Engineering College
2023	Industrial Visit Report - NK PROTEINS PVT. LTD.	15 October 2022	28	NK PROTEINS PVT. LTD.
2023	TECHO-O-MODEL	12 April 2023	25	SPB Patel Engineering College
2023	Workshop on Reverse engineering	03 April 2023	7	Mr. Kunalsinh Kathia
2023	Workshop on Computer-Aided Manufacturing	02 February 2023	18	Prof. Ashutosh gohel
2023	Workshop on Industrial Safety	01 January 2023	30	Mr. Gaurang Baxi
2022	Hec-RAS Software Workshop	04 April 2022	10	SPB Patel Engineering College
2022	FollineBoat-2022 - Line Follower Robotic Event	04 March 2022	50	SPB Patel Engineering College
2022	Workshop on "Mechanical Automation using Arduino and its application in Industry 4.0"	21 January 2022	20	SPB Patel Engineering College
2021	Workshop on Technologies Shaping Civil Engineering	07 June 2021	45	SPB Patel Engineering College
2021	Workshop in Hybrid Electric Vehicle	07 June 2021	45	SPB Patel Engineering College
2020	Adani (Mundra) Port Visit Report	31 March 2023	55	SPB Patel Engineering College
2020	Industrial Visit To "J K Laxmi Cement Grinding Plant"	20 May 2023	17	SPB Patel Engineering College
2020	Webinar: 'Super Critical Thermal Power Plant'	19 October 2020	40	SPB Patel Engineering College



Year	Name of the capacity development and skills enhancement program	Period (from date - to date)	Number of students enrolled	Name of the agencies/experts involved with contact details (if any)
2020	GANITAGYA under Veyg 2020	19 February 2020	20	SPB Patel Engineering College
2019	VEYG - a Techfest	19 March 2019	250	SPB Patel Engineering College
2019	Workshop on 'Creo for beginners'	23 January 2019	50	SPB Patel Engineering College
2018	Plastic Tide Turner Workshop	23 October 2018	120	Centre for Environment Education (CEE)

At S..P.B. Patel Engineering College



ISRO

Awareness Session: "ISRO"

-By Fiza Pathan



TIME

AT 10:00 aM



DATE

22.07.2023



S.P.B. PATEL
ENGINEERING COLLEGE

SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

Awareness Session about ISRO

July 22, 2023

Participants: 60

Speaker: Fiza Pathan

Saffrony Institute of Technology organized an awareness session about the Indian Space Research Organisation (ISRO) on July 22, 2023.

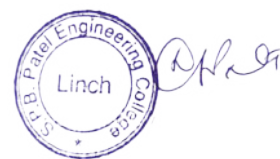
The session, led by esteemed alumna Fiza Pathan, who is actively contributing to ISRO, aimed to enlighten students about the organization and its significant role in space exploration.

Session Details:

- Alumna Contribution: Fiza Pathan, an accomplished alumna of the institute, shared her experiences and insights gained from working at ISRO. Her firsthand knowledge added a personal touch to the session, making it more relatable for the participants.

- Objective: The primary objective of the session was to raise awareness about ISRO and its achievements. Fiza emphasized the organization's pivotal role in space exploration, instilling a sense of pride and curiosity among the students.

- Inspiration: Fiza's session served as a beacon of inspiration for the academic community. By sharing her journey and experiences, she motivated the next generation of scientists and engineers, encouraging them to aspire to contribute to similar groundbreaking endeavors.



Outcome:

The awareness session about ISRO proved to be highly insightful and inspiring for the 60 participants. Fiza Pathan's contribution and experiences added a real-world perspective, fostering a deeper appreciation for the advancements in space exploration.

Conclusion:

Saffrony Institute of Technology extends gratitude to Fiza Pathan for her valuable contribution to the awareness session about ISRO. The institute is dedicated to providing students with such enriching experiences that connect them with accomplished alumni and inspire them to pursue excellence in their academic and professional journeys.

Photographs:



Hands-On Session

"FREE CAD BY AKRUTI ANVESHAK CLUB"

By Mr. Tanuj Baria

5th May 2023

At S.P.B. Patel Engineering College



Website

saffrony.ac.in

Organized By



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ENGINEERING COLLEGE

SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

Hands-On Session on FreeCAD

Akruti Anveshak Club

May 5, 2023

On May 5, 2023, the Akruti Anveshak Club organized a hands-on session on FreeCAD, a powerful open-source parametric 3D CAD modeler. The workshop, was organized by Mr. Tanuj Baria, a 6th-semester Mechanical Engineering student, aimed to provide practical insights into FreeCAD modeling for fellow mechanical engineering students.

The event attracted a participation of 21 students who were eager to delve into the world of parametric design, assembly, and simulation using FreeCAD. Mr. Tanuj Baria, an adept enthusiast in the subject matter, organized the workshop, sharing his knowledge and expertise with his peers.

The session commenced with an introduction to FreeCAD, highlighting its significance in the realm of computer-aided design (CAD). Mr. Tanuj Baria guided the participants through the process of creating intricate 3D models, emphasizing the software's capabilities and functionalities.

The hands-on nature of the workshop allowed students to actively engage in the modeling process, fostering a practical understanding of FreeCAD. Participants gained valuable skills that are essential for their future endeavors in mechanical engineering, as computer-aided design plays a pivotal role in the modern engineering landscape.

The workshop provided a platform for collaborative learning, with students sharing insights and troubleshooting challenges collectively. This collaborative spirit enhanced the overall learning experience and reflected the strong sense of community within the Akruti Anveshak Club.

In conclusion, the Hands-On Session on FreeCAD proved to be a resounding success, equipping participants with practical skills and knowledge that will undoubtedly benefit them in their academic and professional pursuits. The Akruti Anveshak Club expresses gratitude to Mr. Tanuj Baria for his initiative and leadership in organizing this insightful workshop.



Session on

"WEB DEVELOPMENT"

-By Prof. Upashana Goswami



26 April, 2023



S.P.B. PATEL
ENGINEERING COLLEGE

SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

WORKSHOP ON WEB DEVELOPMENT REPORT
SAFFRONY INSTITUTE OF TECHNOLOGY
April 26, 2023

Saffrony Institute of Technology hosted a two-day Workshop on Web Development on April 26 and 27, 2023, with the participation of 60 enthusiastic students. The workshop featured Prof. Upashana Goswami, an esteemed expert in the field, as the organizer.

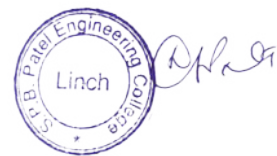
As part of the event, the institute was honored to welcome Mr. Akash Padhiyar, a distinguished professional with extensive experience in the IT sector. Mr. Padhiyar's expertise lies in Web and Mobile App Development, as well as Digital Marketing. With a remarkable track record, he has successfully trained over 2000 students and 250 professionals, solidifying his reputation as a seasoned industry practitioner.

The workshop delved into various aspects of Web Development, covering contemporary topics and industry best practices. 60 students participated enthusiastically in this session. Mr. Padhiyar's insightful sessions provided valuable insights into the latest trends and technologies in the realm of web and mobile app development. His practical approach and real-world examples resonated well with the participating students, enhancing their understanding of the subject.

The interactive nature of the workshop allowed students to actively engage with Mr. Padhiyar, posing questions and seeking guidance on specific topics. The hands-on exercises provided a practical dimension to the theoretical knowledge shared during the sessions.

The event was a resounding success, fostering a vibrant learning environment and encouraging the exchange of ideas among the participants. The Saffrony Institute of Technology remains committed to organizing such enriching workshops that bridge the gap between academic learning and industry insights.

We extend our gratitude to Prof. Upashana Goswami and Mr. Akash Padhiyar for their valuable contributions to the success of the Workshop on Web Development. The institute looks forward to organizing more such events to empower students with the latest skills and knowledge in the rapidly evolving field of technology.



Photographs:





Digital Financial Frauds : Awareness Session

By Mr. Dhiren Parekh



AT 10:00 aM



04.01.2023



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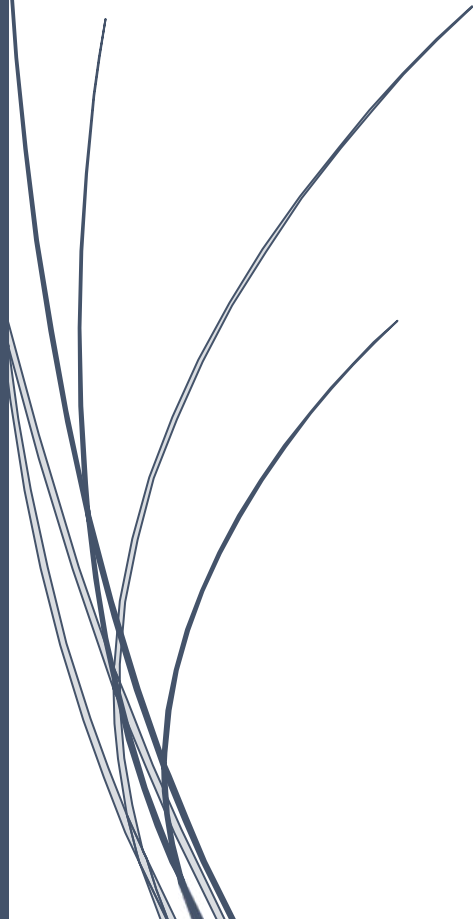


**S. P. B. PATEL
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**Report on
Digital Financial Frauds -
Awareness Session**

January 4, 2023



Digital Financial Frauds - Awareness Session

Date: January 4, 2023

Participants: 49

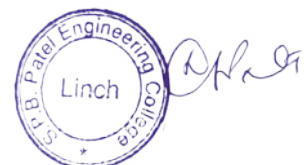
Conducted by: Dr. Dhiren Parekh

Coordinated by: Dr. Pooja Mehta

In response to the growing challenges in digital finance, Saffrony Institute of Technology organized the "Digital Financial Frauds - Awareness Session" on January 4, 2023. This critical academic initiative, led by finance expert Dr. Dhiren Parekh, aimed to impart invaluable insights to 49 participants, equipping them with the knowledge needed to navigate the complexities of digital transactions securely.

Session Highlights:

- Expert Facilitation: Dr. Dhiren Parekh, renowned in the field of finance, conducted the awareness session. His expertise in financial matters, particularly in the digital domain, added credibility to the session.
- Knowledge Empowerment: The session focused on providing participants with insights into the various types of digital financial frauds prevalent in the contemporary financial landscape. Dr. Parekh's expertise was instrumental in enhancing participants' understanding of potential risks and vulnerabilities.
- Proactive Mindset: The awareness session aimed not only to enhance financial literacy but also to cultivate a proactive mindset among participants. By raising awareness about digital financial frauds, the session aimed to empower students to safeguard themselves against potential risks.



- Navigating Digital Transactions: Dr. Parekh shared practical tips and strategies for securely navigating digital transactions. Participants gained a better understanding of how to protect their financial information and make informed decisions in an increasingly digitized financial environment.

Outcome:

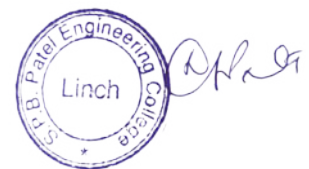
The Digital Financial Frauds - Awareness Session was successful in achieving its objectives. Participants gained valuable knowledge that is essential for protecting themselves in an era where digital transactions are prevalent.

Conclusion:

Saffrony Institute of Technology extends appreciation to Dr. Dhiren Parekh for his expertise and valuable contribution to the awareness session. The institution remains committed to addressing contemporary challenges and ensuring that students are well-prepared to navigate the complexities of the digital financial landscape securely.

Photographs:







“TOTAL STATION SURVEY”

The event will be held on:

Monday, 18 May 2023
10:00 am - 12:00 am

Organize by
SPB Patel Engineering
College



Report on Workshop on “Total station Survey” for 2021 batch Civil Branch

May 18, 2023

With the approval of our college and authorities ONGC, Workshop on Total Station & Surveying” for 4th semester students of civil was arranged on May 18 2023. Expert of workshop was Mr. B. K. Panchal, ONGC, Ahmedabad. The details of student and Faculty members involved in workshop are as below,

Sr. No.	Industry Name and place	Date	No of days	Number of students	Semester	Branch	Name of faculty
1.	S. P. B. Patel Engg college	May 18, 2023	1	14 (DIP.)	4 th	Civil	(1) Prof. D. P. Kandoi (2) Prof. Visat Patel

In this workshop, the students gained sound practical skill along with concepts of total station which is highly demanded by surveying. Workshop includes practical assignment on topographic surveying and building construction layout demarcation... The students gained a lot of practical knowledge, concept and activities which are discussed and taught in classroom. This workshop intended to cover the syllabus of subject, Advanced Surveying.

Students were able to get following knowledge from this workshop

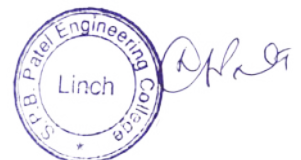
- ❖ Identify the parts of the Total Station.
- ❖ Set out the total station on a given station.
- ❖ Set out the station by setting up a back sight.
- ❖ Measure the horizontal, vertical and deflection Angle by total station.
- ❖ Store and download the data from a total station in computer and convert the same into Auto CAD file. Etc.
- ❖ Total Station survey:
 - Carry out the project for a small traverse with 4-5 stations on the ground.

Thanks,

Prof. Dharmendra Kandoi
CIVIL DEPT.

Copy to:

- Events File
- H.O.D. (CIVIL) for kind information
- Principal for the kind information





EXPLORE INDUSTRIAL WITH US!

“NK PROTEINS PVT. LTD.”

ON 15 October 2022

Organize By_-

S.P.B. Patel Engineering College



**S.P.B. PATEL
ENGINEERING COLLEGE**

SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS



Industrial Visit Report

NK PROTEINS PVT. LTD.

Date: 15th October, 2022

Industry Visited: Nk Proteins Pvt. Ltd.

Duration of Visit: 1 day

Number of Students: 28

Semesters Involved: 3rd & 5th

Branch: Mechanical

Accompanying Faculty: Prof. Mayank Patel, Prof. Kalpesh Patel

Industry Focus: Edible oil production, refining, filling, packaging, and manufacturing of plastic bottles and steel boxes for oil.

In accordance with the approvals from our college and Nk Proteins Pvt. Ltd., an industrial visit for students was organized on 15th October, 2022. The group, comprising both students and faculty members, embarked on this insightful visit via the college bus, departing from the college premises at 10:00 AM.

Nk Proteins Pvt. Ltd. specializes in the production of edible oil. Their operations involve the refining of raw oil, filling, and packaging of purified oil. Additionally, they are engaged in the manufacturing of plastic bottles and steel boxes for oil.

Learning Highlights:

The students gained valuable practical knowledge, witnessing the application of concepts studied in the classroom. Key insights were obtained into various processes such as Blow Moulding, Material Handling Equipments (Conveyor Belt, Cam and Follower, Seam Welding Process), and more.

Conclusion:

The industrial visit proved to be an enriching experience, providing students with a hands-on understanding of real-world industrial processes. This exposure is expected to contribute significantly to their academic and professional growth. The group returned to the college by 2:00 PM.

Acknowledgments:

We extend our gratitude to the college and the Mechanical department for organizing and facilitating this insightful industrial visit.

Thanks,

Prof. Mayank Patel

Prof. Kalpesh Patel

(Mechanical/Automobile)





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SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

Photographs:





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Reverse Engineering WORKSHOP



By:
Mr. Kunal Singh Kathia

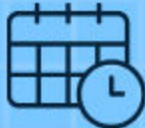


S.P.B. PATEL
ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS



TIME

AT 11:00 AM



DATE

03.04.2023



hello@reallygreatsite.com



123 Anywhere St., Any City





Report on
One Day Hackathon event - Reverse Engineering

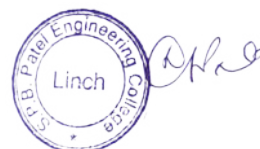
Details	Description
Diploma/Degree:	Degree
Name:	Prof. Kunalsinh Kathia
Branch:	Mechanical Engineering
Category:	WORKSHOP
Location:	Saffrony Institute of Technology
Participants:	5
Start Date:	4/3/2023 9:30:00
End Date:	4/3/2023 16:30:00
Visit/Workshop for	- Degree 4 Mechanical Engineering

Summary:

The 4th-semester mechanical students completed a one-day hackathon event on reverse engineering, showcasing their skills and knowledge. The event was held on 3rd April 2023 and started with an informative introduction session by Prof. Kunalsinh Kathia and Prof. Tausif Shaikh, who introduced the concept of a hackathon and its significance. The students were then divided into groups and given various products to work on, with each group allocated a location to work on the product. The students tackled a range of challenges and came up with some innovative solutions, which they presented in an impressive manner. The event was a resounding success. It is hoped that this event will inspire the students to participate in more such events in the future, providing them with a valuable platform to showcase their skills, learn from their peers, and gain valuable experience. Such events are crucial for students' growth and development, and the institution looks forward to hosting more such events in the future.

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Summary Report on [One Day Hackathon event - Reverse Engineering](#)

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<https://drive.google.com/open?id=18jYwmlqCYAgxCNoJDw0jsbsyzMeVVQ2w>

Word Report:

PDF Report:

Prepared by:

Prof. Kunalsinh Kathia

Mechanical Engineering

kunalsinh.kathia@saffrony.ac.in





WORKSHOP ON COMPUTER AIDED MANUFACTURING

Date: 1st - 2nd
February 2022



S.P.B. PATEL
ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

**Professor In charge
- Prof. Ashutosh
Gohel**

Knowledge and skills required
to effectively use computer-aided
manufacturing (CAM) software in
their professional or academic
pursuits

Venue: Auditorium Hall, Saffrony
Institute

Timing: 10:00 AM - 3:00 PM



**S. P. B. PATEL
ENGINEERING COLLEGE**

SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

02nd & 03rd Feb, 2023

Report on

CAM Workshop

by Prof. Ashutosh Gohel and Prof. Monil Shah

Prepared By:

Prof. Ashutosh Gohel & Prof. Monil Shah

Mechanical Engineering Department

Report on CAM Workshop

Introduction and Objective:

CAM stands for Computer-Aided Manufacturing, which is the use of computer software to control manufacturing processes. CAM software is used to generate instructions for machines such as CNC (Computer Numerical Control) machines, robots, and 3D printers. This allows for increased precision, accuracy, and efficiency in manufacturing processes.

The objective of a CAM workshop is to provide participants with the knowledge and skills required to effectively use computer-aided manufacturing (CAM) software in their professional or academic pursuits. CAM software is used to control and automate manufacturing processes, which can greatly improve efficiency and accuracy. Participants will learn how to create and edit CAD (computer-aided design) models, generate tool paths, and simulate manufacturing processes. Additionally, they will learn how to optimize CAM settings and understand the limitations and capabilities of the software. By the end of the workshop, participants will be equipped with the necessary tools to implement CAM software in their own manufacturing workflows.

Workshop details:

Day 1 – 2nd February 2023

Session - 1 Introduction to CAM

The first session of the workshop on introduction about Computer-Aided Manufacturing (CAM) was a great success. The workshop was attended by a diverse group of participants, including students, professionals, and researchers from various industries.

The session began with an overview of CAM, which is the use of software and computer-controlled machinery to automate manufacturing processes. The presenter highlighted the benefits of CAM, such as improved accuracy, efficiency, and consistency in manufacturing. The presenter also discussed the different types of CAM systems, including CAD/CAM, CAM software, and CNC machines.

Session - 2 Introduction to CNC part programming

The second session of the workshop on Introduction to Part Programming for CNC Machine was an informative and engaging session. The session was focused on the basics of G-code programming for CNC machines.

The session began with a brief recap of the first session, where the participants were introduced to the basic concepts of CNC machines and their working principles. The instructor then proceeded to explain the basics of G-code programming, which is the language used to program CNC machines.

The students were given an overview of the structure of a G-code program, which consists of blocks of codes that are executed in a specific sequence. Prof. Ashutosh Gohel explained the importance of understanding the syntax of G-code commands, as even small errors can lead to significant mistakes in the final product.

Session - 3 Quiz

The third session of the workshop focused on the topic of CAM (Computer-Aided Manufacturing) and Part Programming. The students were then given a quiz to test their knowledge of CAM and part programming. The quiz covered a range of topics, including types of machining operations, programming languages, and software tools used in CAM.

Day 2 – 3rd February 2023

Session - 1 Written practice problem of part programming

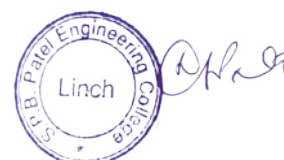
The second day of the workshop began with a session on the written practice of Part programming and an introduction to CNC Simulator. The session was aimed at providing students with practical experience in writing and testing part programs using a CNC Simulator.

Prof. Ashutosh Gohel started by explaining the basics of part programming, including the structure and format of a typical part program. He also discussed the importance of proper syntax and correct code sequencing for successful part programming.

Next, the students were introduced to a CNC Simulator, which is a software tool used to simulate CNC machining operations. The simulator allows students to write and test part programs without the need for a physical CNC machine.

Then demonstrated the use of the simulator, showing how to load a part program and simulate its execution. He also discussed the different types of simulators available and their various features and capabilities.

After the demonstration, the students were practice in writing and testing part programs using the simulator. They were provided with sample part programs and tasked with modifying them to perform different machining operations.



Session - 2 Simulator practice for part programming

The students were engaged in a simulator practice session. The aim of this session was to give the students an opportunity to apply the knowledge they had gained in the previous day's lectures and discussions.

The students were divided into groups, and each group was given a set of instructions to program into the simulator. The simulator allowed the students to input their code and see how the program would run in a virtual environment.

Throughout the session, the students were engaged and enthusiastic, with many expressing excitement at the opportunity to practice their programming skills in a realistic setting. They were also able to see first-hand how their programming decisions affected the behaviour of the simulated machine, which helped to reinforce the importance of careful planning and attention to detail.

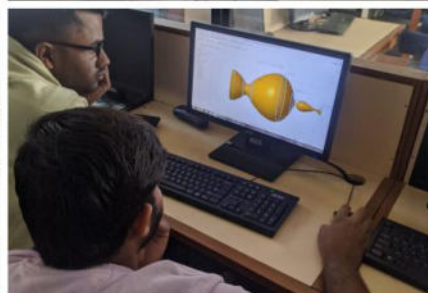
Session - 3 Test on Part programming

On the third session of the second day of the workshop on part programming, students were given an individual test to assess their knowledge and understanding of the concepts covered in the previous sessions.

The test consisted of several questions that covered a range of topics, including programming fundamentals, G-codes and M-codes, and tool path generation. The students were required to complete the test within a specified time limit, and they were not allowed to consult any external resources or assistance.

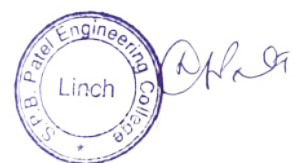


Some Memories form CAM Workshop



Yours Sincerely,

Prof. Ashutosh Gohel
Assistant Professor, Mechanical Engineering Department



WORKSHOP ON

INDUSTRIAL SAFETY



JANUARY 1ST,
2023



TIME
10:00 AM – 1:00PM



VENUE
SEMINAR HALL,
SAFFRONY INSTITUTE



SPEAKER
**MR. GAURANG
BAXI**



S.P.B. PATEL
ENGINEERING COLLEGE

SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

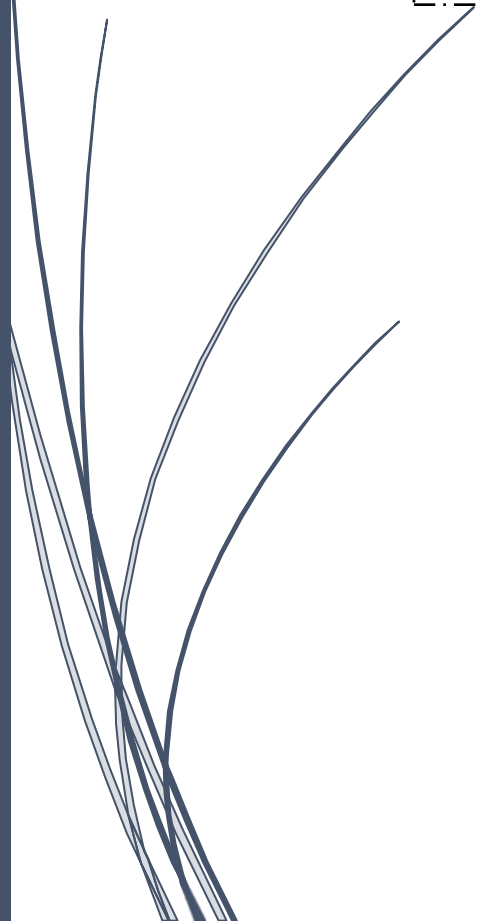


**S. P. B. PATEL
ENGINEERING COLLEGE**
SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS



**REPORT ON
WORKSHOP ON INDUSTRIAL
SAFETY**

January 1, 2023



Workshop on Industrial Safety - January 1, 2023

Date: January 1, 2023

Participants: 30

Facilitator: Mr. Gaurang Baxi

Saffron Institute of Technology conducted a Workshop on Industrial Safety on January 1, 2023, with the participation of 30 students from the 2nd and 3rd years of the Mechanical and Civil Engineering branches. Mr. Gaurang Baxi, an expert faculty member from the Civil Engineering department, led the workshop, providing students with crucial insights into workplace safety protocols.

Workshop Details:

- **Objective:** The primary goal of the workshop was to enrich students with essential knowledge and skills related to industrial safety, emphasizing its significance in professional settings.
- **Content Delivery:** Mr. Gaurang Baxi employed a comprehensive approach, blending theoretical foundations with practical scenarios. This method ensured that students gained a holistic understanding of industrial safety practices.
- **Target Audience:** The workshop was tailored for 2nd and 3rd-year students of the Mechanical and Civil Engineering branches, aligning the content with their academic levels and future professional requirements.
- **Empowering Students:** The expert faculty imparted invaluable knowledge that empowered students to prioritize and implement robust safety measures in industrial settings. This knowledge is deemed crucial for their future careers, ensuring a secure and well-informed professional trajectory.



Outcome:

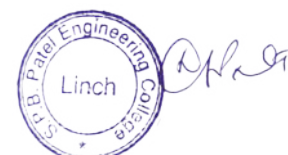
The Workshop on Industrial Safety proved to be a valuable experience for the participating students. The insights gained will contribute to their overall awareness of safety protocols and enhance their ability to create secure environments in future industrial endeavors.

Conclusion:

Saffron Institute of Technology extends appreciation to Mr. Gaurang Baxi for his expert facilitation of the Workshop on Industrial Safety. The institution is committed to organizing such informative sessions that equip students with practical knowledge essential for their success in the professional sphere.

Photographs:







D.K. S.



 S. P. B. PATEL
ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY



ONE DAY WORKSHOP



INDUSTRIAL SAFETY



 S. P. B. PATEL
ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY

 S. P. B. Patel Engineering College
Linch
[Handwritten Signature]




POSTER MAKING



INDUSTRIAL SAFETY




S. P. B. PATEL
ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY


S. P. B. Patel Engineering College
Linch



**SAFFRONY
INSTITUTE OF
TECHNOLOGY
PRESENTS**

**Date of
Workshop**

HEC-RAS WORKSHOP

**4TH APRIL,
2022
1PM-4:30PM**

Conducted by

Joseph Sebastian Sibi
Assistant Professor
Civil Engineering Department
Saffrony Institute of Technology



HEC-RAS is a computer software for modeling water flowing through systems of open channels and computing water surface profiles. HEC-RAS finds particular commercial application in floodplain management and [flood insurance] studies to evaluate floodway encroachments.



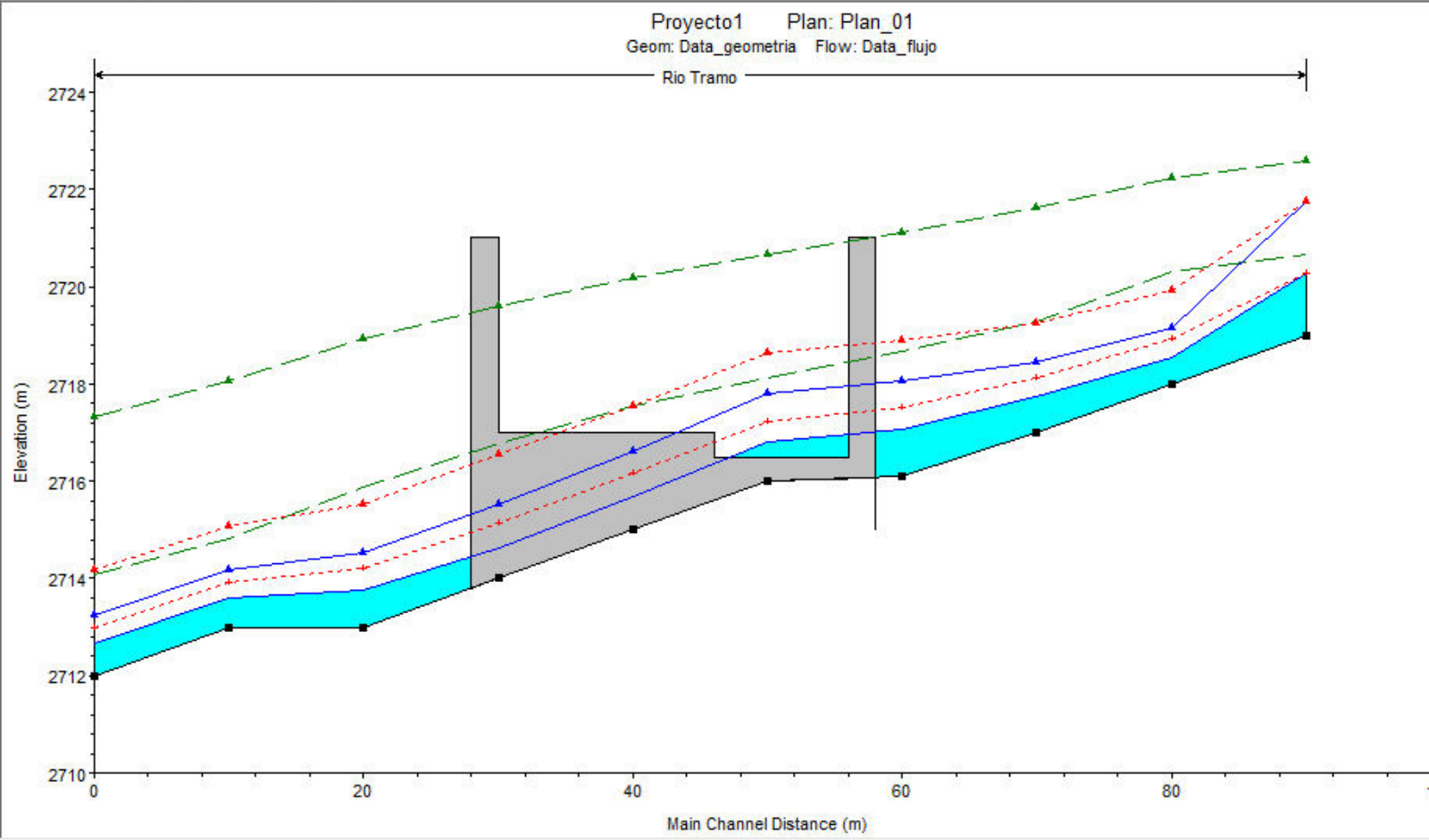
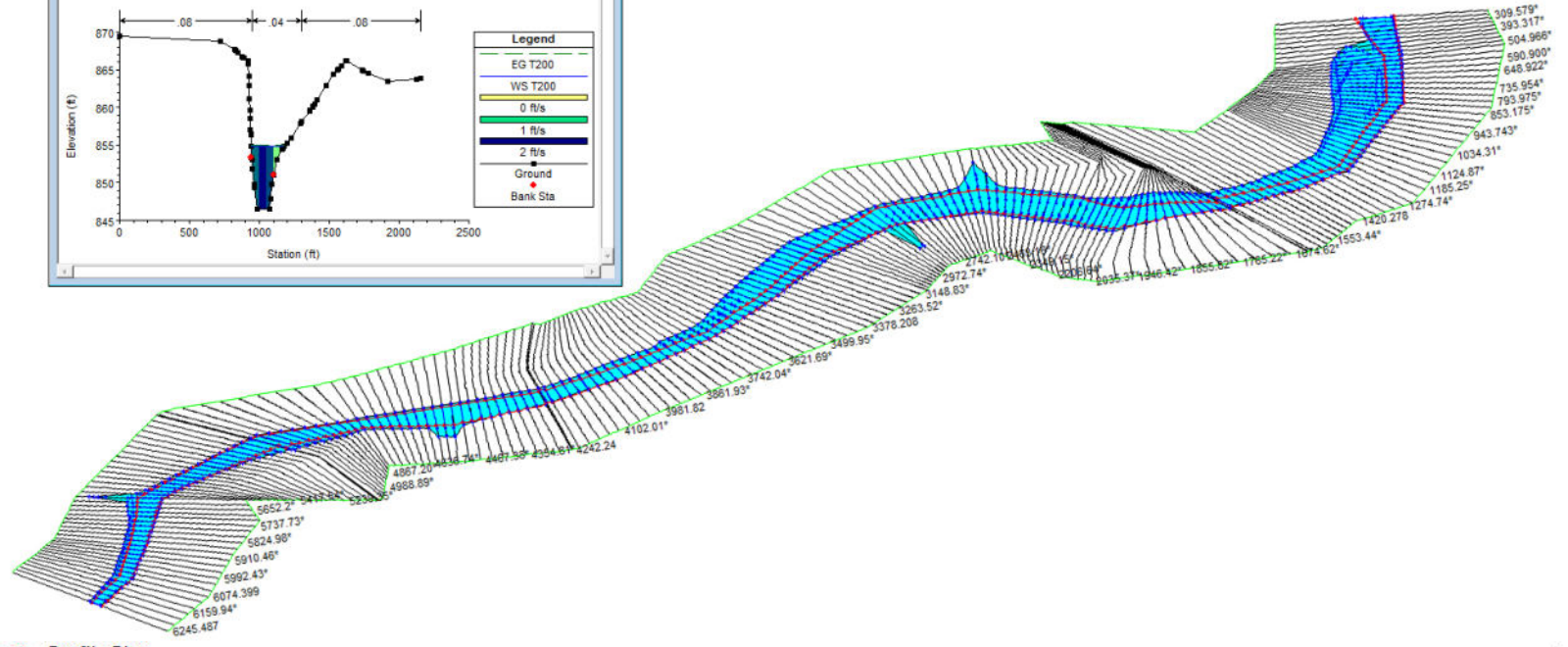
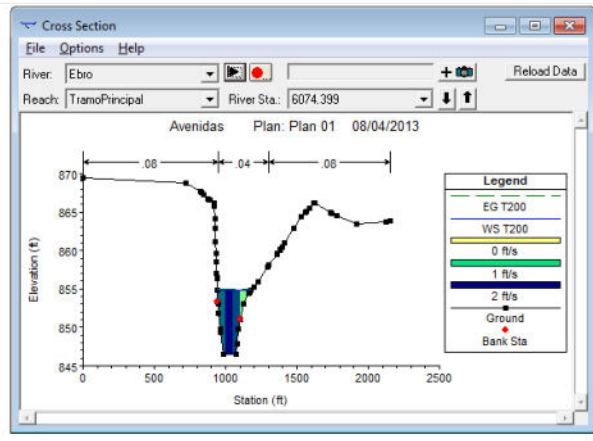
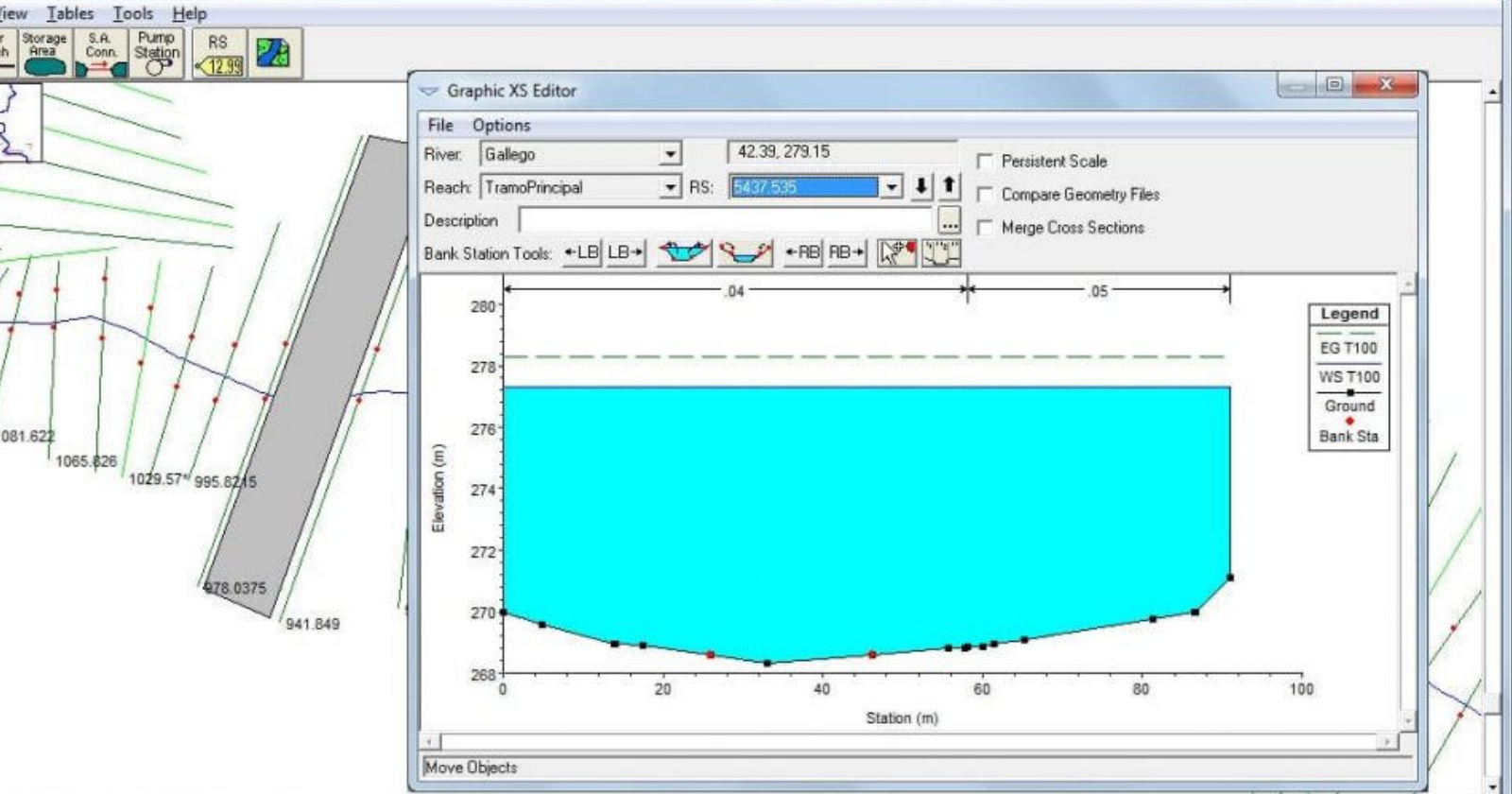
Topics Covered in the Workshop

- Installation of the software
- Understanding various terms and concepts of open channel flow
- Modelling of a river cross section
- Steady Flow Analysis
- Unsteady Flow Analysis
- 1-D Flood Modelling

- Proper understanding of the basic concepts of Open Channel Flow
- Knowledge about the actual scenario of flood modelling.
- A step ahead in being a better Water Resources Engineer and thus a better Civil Engineer.

Benefits of the Workshop

An E-Certificate for the workshop will be provided after successful completion of the workshop



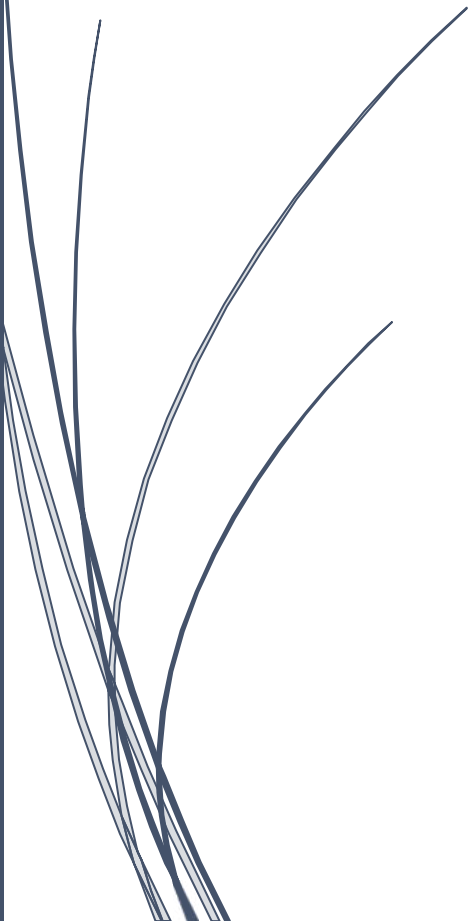
**Some Glimpses of
the Software**



**S. P. B. PATEL
ENGINEERING COLLEGE**
SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS



**EVENT REPORT ON
HEC-RAS SOFTWARE
WORKSHOP
APRIL 4, 2022**



HEC-RAS Software Workshop

Date: April 4, 2022

Participants: 10

Conducted by: Prof. Joseph Sebastian

The Civil Engineering Department at Saffrony Institute of Technology organized a one-day workshop on HEC-RAS software on April 4, 2022, facilitated by Prof. Joseph Sebastian. The workshop was designed for 3rd-year students, providing them with valuable insights and practical knowledge on modeling water flow through open channels.

Workshop Highlights:

Software Overview: Prof. Joseph Sebastian commenced the workshop with an introduction to the HEC-RAS software, emphasizing its significance in modeling water flow through open channels. The software's applications in floodplain management and flood insurance studies were particularly highlighted.

Topics Covered:

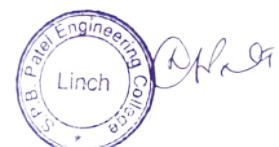
- Installation of the software
- Understanding various terms and concepts of open channel flow
- Modeling of a river cross-section
- Steady Flow Analysis
- Unsteady Flow Analysis
- 1-D Flood Modeling

Benefits of the Workshop:

- Proper understanding of basic concepts of Open Channel Flow
- Knowledge about flood modeling scenarios
- Advancement in skills for aspiring Water Resources Engineers and Civil Engineers

Interactive Learning:

The workshop focused on an interactive learning approach, allowing participants to actively engage in discussions, practical exercises, and hands-on activities related to HEC-RAS.



Outcome :

The HEC-RAS Software Workshop was successful in providing participants with a comprehensive understanding of water flow modeling and analysis. The practical knowledge gained during the workshop is expected to enhance the skills of the 10 participants in the field of water resources engineering.


Conclusion:

Saffrony Institute of Technology appreciates the efforts of Prof. Joseph Sebastian and the Civil Engineering Department in organizing a successful workshop on HEC-RAS software. The institution remains committed to providing students with practical learning opportunities that contribute to their academic and professional growth.



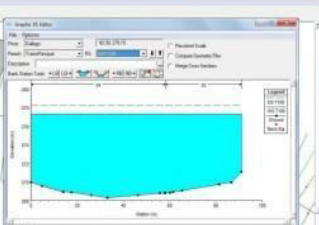
Photographs:

saffrony.com



Saffrony Institute of Technology presents

HEC-RAS Workshop



Topics Covered in the Workshop


- Installation of the software
- Understanding various terms and concepts of open channel flow
- Modelling of a river cross section
- Steady Flow Analysis
- Unsteady Flow Analysis
- 1-D Flood Modelling

Benefits of the Workshop

- Proper understanding of the basic concepts of Open Channel Flow
- Knowledge about the actual scenario of flood modelling.
- A step ahead in being a better Water Resources Engineer and thus a better Civil Engineer.

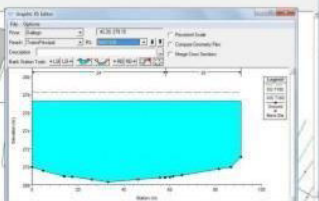
An E-Certificate for the workshop will be provided after successful completion of the workshop


saffrony.com



Saffrony Institute of Technology presents

HEC-RAS Workshop





US Army Corps of Engineers

HEC-RAS FULLY SUPPORTED

Date of Workshop
4th April, 2022

HEC-RAS is a computer software for modeling water flowing through systems of open channels and computing water surface profiles. HEC-RAS finds particular commercial application in floodplain management and [flood insurance] studies to evaluate floodway encroachments.

Conducted by
Joseph Sebastian Sibi
Assistant Professor
Civil Engineering Department
Saffrony Institute of Technology

Phone
8799273684

E-mail
joseph.sebastiansibi@saffrony.ac.in



FollineBoat-2022 - Line Follower Robotic Event

Date: March 4 and 21, 2022

Participants: 6th Semester Computer Engineering Branch Students

Saffrony Institute of Technology, in collaboration with the Degree Courses, organized a Line Follower Robotic Event - FollineBoat-2022 for 6th Semester Computer Engineering branch students. This event served as an experimental and practical learning experience, integrated into the subject Internet of Things for the 6th Semester Computer Branch.

Event Phases:

1. Learning Phase: The first phase of the event focused on the learning aspect, where students gained fundamental concepts of building robots. Hands-on practices were an integral part of this phase, allowing students to grasp theoretical knowledge and apply it practically.

2. Execution Phase: The second phase involved the execution of the concepts learned during the learning phase. Students successfully implemented various robotic concepts, showcasing their understanding and skills in the field.

Objectives:

The main objectives behind organizing this competition were:

- Boosting practical expertise among students.
- Providing a platform for experiential learning.
- Developing skills such as problem-solving, teamwork, and project management.
- Enhancing understanding of financial aspects related to robotics projects.

Learning Concepts:

During the event, students practically learned various concepts, including:

- Programming in Arduino.
- Architecture of Arduino.
- Interfacing of different sensors such as IR sensors and ultrasonic sensors with Arduino.
- Interfacing of different actuators such as servo motors and DC gear motors with Arduino.
- Speed control of DC motors using different motor drivers (L293D, L298N, motor driver shield).
- Power utilization from batteries.

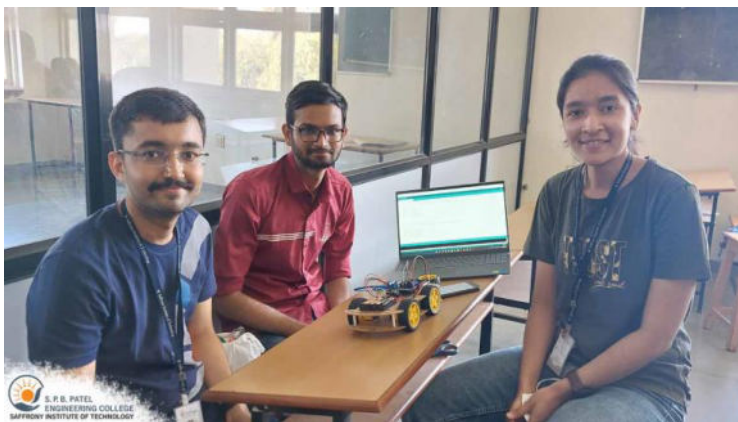
Student Participation:

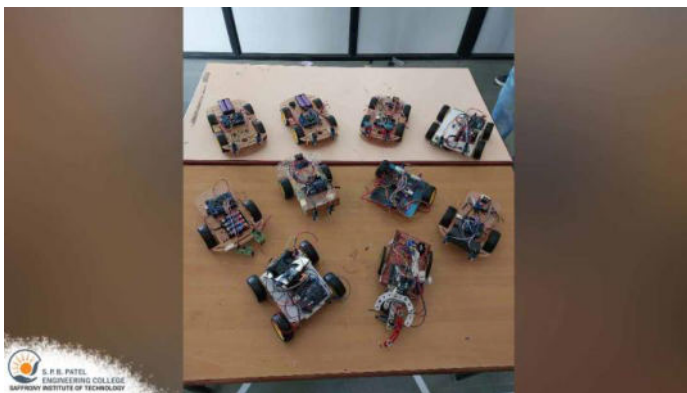
Students participated in the event with enthusiasm, actively engaging in the learning and execution phases. The event provided them with an opportunity to acquire new skills and apply theoretical knowledge in a practical setting.

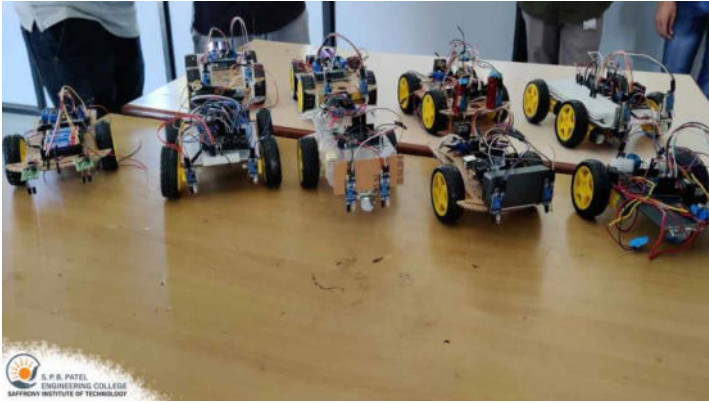
Conclusion:

The Line Follower Robotic Event - FollineBoat-2022 was a success, achieving its objectives of providing students with hands-on experience, fostering teamwork, and enhancing practical skills in the field of robotics. Saffrony Institute of Technology remains committed to organizing such events that contribute to the holistic development of students.

Glimpses of the event:









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ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

ONLINE WORKSHOP ON MECHANICAL AUTOMATION USING ARDUINO AND ITS APPLICATION IN INDUSTRY 4.0

Equip students with automation principles, practical Arduino applications, and Industry 4.0 skills through comprehensive learning and hands-on activities.

DATE: JANUARY 21, 2022

**FOR: FOR 6TH-SEMESTER
MECHANICAL DEPARTMENT
STUDENTS**

One-Day Online Workshop on "Mechanical Automation using Arduino and its application in Industry 4.0"

Date: January 21, 2022

Participants: 20

Saffrony Institute of Technology organized a one-day online workshop on "Mechanical Automation using Arduino and its application in Industry 4.0" for 6th-semester Mechanical Department students. The workshop aimed to provide a comprehensive understanding of automation principles, focusing on Arduino applications, and bridging the gap between theoretical knowledge and practical implications.

Workshop Highlights:

- Objective: The primary objective of the workshop was to equip 6th-semester Mechanical Department students with a deep understanding of automation principles, particularly in the context of Arduino applications and their relevance to Industry 4.0.
- Comprehensive Learning: The workshop covered a wide range of topics related to mechanical automation, emphasizing the practical application of Arduino in real-world scenarios. This comprehensive approach ensured that students gained a holistic understanding of modern automation in the field of mechanical engineering.
- Industry 4.0 Focus: Recognizing the importance of Industry 4.0, the workshop emphasized how the skills acquired through the understanding of Arduino applications contribute to the ongoing technological revolution in the industry.
- Skill Development: The hands-on nature of the workshop allowed students to apply theoretical concepts in a practical setting, enhancing their skills and proficiency in the realm of mechanical automation.

Outcome:

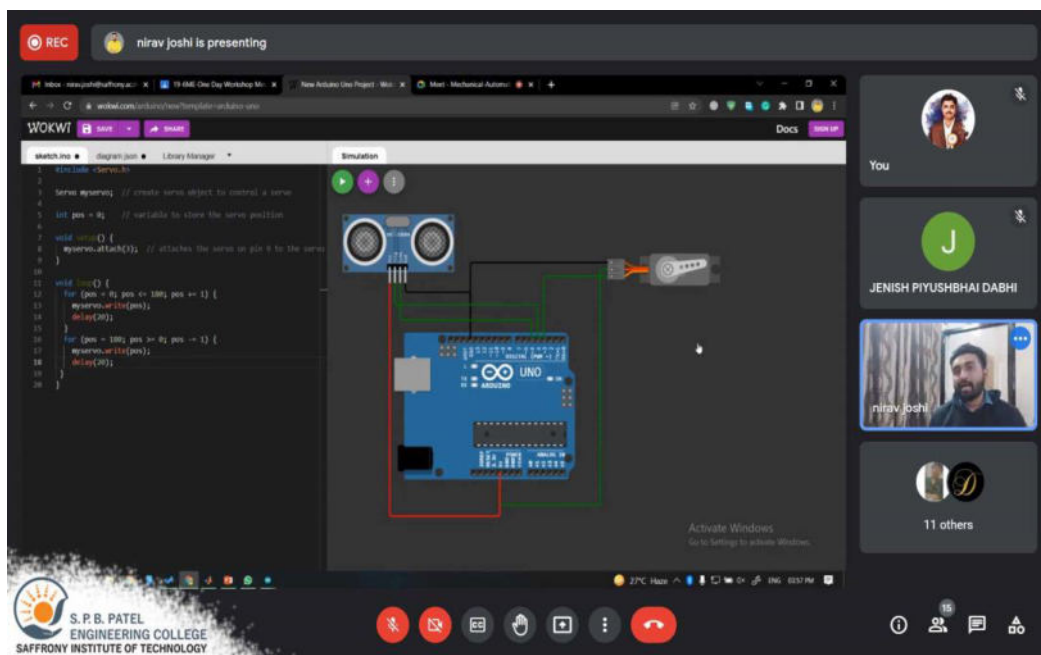
The one-day online workshop proved to be a success, with 20 participants gaining valuable insights and skills in the field of mechanical automation using Arduino. The

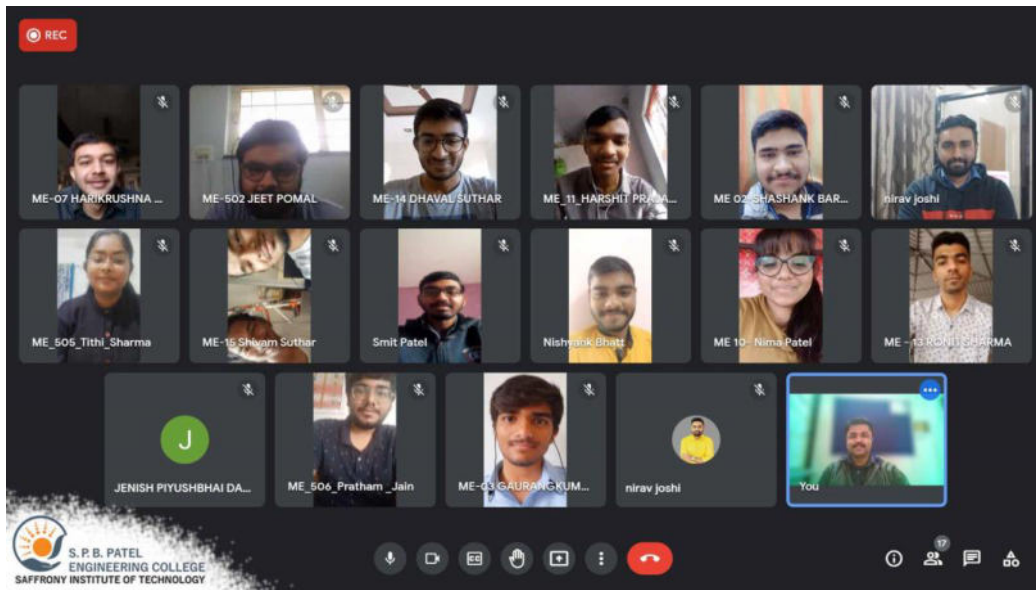
practical focus and relevance to Industry 4.0 ensured that students were well-prepared for the demands of modern mechanical engineering.

Conclusion:

Saffrony Institute of Technology acknowledges the success of the One-Day Online Workshop and the positive impact it has had on the skill development of 6th-semester Mechanical Department students. The institution remains committed to organizing such events that bridge the gap between theory and practice, preparing students for the evolving landscape of their respective fields.


Photographs:





Introduction to Arduino

- Arduino is an open-source electronics platform based on easy-to-use hardware and software.
- Arduino boards are able to read inputs [via light on a sensor, a finger on a button or from pin] and turn it into an output [by activating a motor, turning on an LED, publishing something online].
- The Arduino Uno can be powered via the USB connection or with an external power supply.
- The power source is selected automatically.



S. P. B. PATEL
ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY



ME 10- Nima Patel
ON switch

REC

ME-07 HARIKRUSHNA ... ME-502 JEET POMAL ME-14 DHAVAL SUTHAR ME 11 HARSHIT PRA... ME 02 SHASHANK BAR... nirav joshi

ME_505_Tithi_Sharma ME-15 Shivam Suthar Smit Patel Nishyank Bhatt ME 10- Nima Patel ME -13 RONIT SHARMA

JENISH PIYUSHBHAI DA... ME_506_Pratham_Jain ME-03 GAURANG KUM... nirav joshi You

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ENGINEERING COLLEGE
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S.P.B PATEL ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY
CIVIL ENGINEERING DEPARTMENT

PRESENTS

5 DAYS WORKSHOP [7th June 2021 to 11th June 2021]
ON

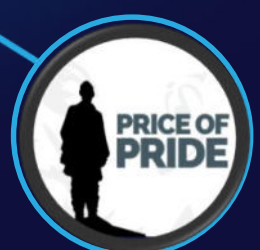
TECHNOLOGIES SHAPING CIVIL ENGINEERING



HYPERLOOP

5G In
CIVIL
ENGINEERING

AR/VR



Origami
To understand
Structural Design

BIO-
MIMICRY ENGINEERING
inspired from NATURE

Building Information Modelling

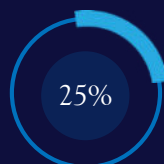
BIM is used for creating and managing data during the design, construction, and operations process.

BIM integrates multi-disciplinary data to create detailed digital representations that are managed in an open cloud platform for real-time collaboration.

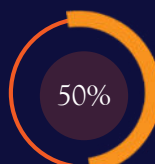
About the Workshop

The aim of this 5 day workshop is going to be to explore Disruptive Technologies that are shaping the world of civil engineering and the world itself. Technologies like BIM, Application of 5G in Civil, AR/VR, Smart Gadget for Civil Engineering, Hyperloop, Biomimicry and many more shall be explored. Along with an assignment related to every topic, there will also be one mega project encompassing majority subjects of Civil Engineering which shall be explored during the workshop.

The workshop shall consist of:



Exploration



Participation



Learning

Expert:

Prof. Avani Dedhia
(Civil Engineering
Department)

Saffrony Institute of
Technology

THE
AGE
OF



S.P.B PATEL ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY
AUTOMOBILE & MECHANICAL ENGINEERING DEPARTMENT

PRESENTS

5 DAYS WORKSHOP [7th June 2021 to 11th June 2021]

ON

HYBRID ELECTRIC VEHICLES



Automobile

It was not long ago when there were questions on the viability of autonomous and electric vehicles in India, especially in the backdrop of insufficient infrastructure and lack of favorable policies. However, things seem to be changing rapidly now. 2021 seems to be the year that may witness an upward trajectory in the market for autonomous vehicles and EVs. There are several reasons for a positive outlook despite 2020 being the year when growth in the EV market slowed globally, largely due to the pandemic-induced lockdown.

Hybrid Vehicles

A hybrid vehicle uses more than one type of power source. The most common types of hybrid vehicles use a combination of an internal combustion engine (ICE) and an electric motor. Hybrid vehicles are designed for better fuel efficiency, more power, and minimum emissions. These vehicles capture electrical energy produced from different sources, such as regenerative braking systems and engines. They can conserve energy by shutting down the engine when the car is parked, idle, or when the electric motor's energy is sufficient to drive the vehicle without assistance from the ICE.



Electric



Petrol



Diesel

203

203 Billion \$

Automotive Industry

Is hoping on HEVs

Experts

Prof. Kunalsinh Kathia
(Mechanical Engineering Department)

Prof. Nirav Joshi
(Electrical Engineering Department)

Saffrony Institute of Technology



TECHNICAL VISIT TO ADANI MUNDRA PORT

Date: 30th – 31st March 2023



S.P.B. PATEL
ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

adani

MUNDRA PORT, KUTCH, GUJARAT



S.P.B.PATEL ENGINEERING COLLEGE, LINCH (MEHSANA)



Adani (Mundra) Port Visit Report

30th – 31st March 2023

MUNDRA PORT, KUTCH, GUJARAT

Industry Profile:

Company Name: Mundra Port & Special Economic Zone Ltd.

Address: Adani House, Nr. Mithakhali Circle Navrangpura, Ahmedabad,
Gujarat. PIN Code: 380009.

Phone: Tel +91 79 2656 5555

Fax +91 79 2656 550

Homepage: www.info@adani.com

Work profile: Natural gateway for the cargo hubs functioning in the Northern and Western states of India as well as the NCR.

About Mundra Port

Mundra Port is the largest private port of India located on the north shores of the Gulf of Kutch near Mundra, Kutch district, Gujarat. Formerly it was operated by Mundra Port and Special Economic Zone Limited (MPSEZ) owned by Adani Group which later it was expanded into Adani Ports & SEZ Limited (APSEZ) managing several ports.

In 2013-2014, Mundra Port has handled 100 million tons of cargo in a year becoming the first Indian port to do so. It also became India's biggest port by cargo handled.



About Visit

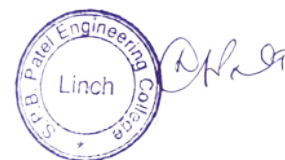
The Technical visit to Adani Mundra port started on 30th March at 1:30 am from S.P.B.PATEL Engg. College. There were two buses containing total of 72 students (4TH & 6TH Civil,Mech,Auto) and 4 faculties (Prof. Kalpesh Patel , Prof. Visat Patel , Prof. Dashrath Prajapati , Mrs. Dimpalben Patel).

The private buses were boarded up to Ahmedabad (Adalaj Trimandir). The buses reached Ahmedabad around 3:30 am then from there the buses from Adani were taken up to Mundra port.

The buses reached Adani Shanti Vihar around 12:30 pm. The students were allocated specific rooms and then lunch was provided later.



After lunch there was a visit to Adani Wilmar and Adani Port.



Adani Mundra Port

The multi-purpose terminals contain nine berths of a total 1.8 thousand meters long with alongside depths ranging from 9 to 16.5 meters. Berth 1 is 275 meters long with alongside depth of 15.5 meters and can accommodate vessels to 75 thousand DWT. Berth 2 is 180 meters long with alongside depth of 13 meters and can accommodate vessels to 30 thousand DWT. Accommodating vessels to 60 thousand DWT, Berths 3 and 4 are each 225 meters long; Berth 3 has alongside depth of 14 meters, and Berth 4 has alongside depth of 12 meters. Berths 5 and 6 are each 250 meters long with alongside depth of 14 meters, and both can accommodate vessels to 150 thousand DWT. Berths 7 and 8 are each 175 meters long with alongside depth of 12 meters and can accommodate vessels to 40 thousand DWT. The Barge Berth is 80 meters long with alongside depth of 6 meters and capacity for vessels of 2500 DWT.





The Mundra Port offers 21 closed dockside warehouses with capacity for 137 thousand square meters to store wheat, sugar, rice, fertilizer and fertilizer raw materials, and deoiled cakes. The port offers 880 thousand square meters of open storage for steel sheets, coils, plate, clinker, scrap, salt, coke, bentonite, and coal. An additional 26 thousand square meters of open storage is available alongside the railway. The port also offers a wheat-cleaning facility with capacity to handle 1200 metric tons per day and a rice-sorting and -grading facility that can handle 500 metric tons per day.

The Port of Mundra is planning several additions and improvements. Two thermal power plants are under construction that will produce over 8600 megawatts. A new terminal site is proposed to be located about ten nautical miles west of the current terminals at the Port of Mundra. The terminal will eventually contain three deep-water offshore berths and two sets of stackyards for coal, iron ore, and other dry bulk cargo.

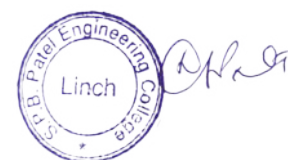


The marine infrastructure at Mundra Port consists of ten (10) berths for handling dry bulk & break bulk cargo, three (3) berths for handling liquid cargo, six (6) container berths including a Ro-Ro berth, three (3) mechanised import cargo berths and 2 single point moorings for crude oil imports. The mechanised import cargo berths can handle vessels with maximum draft of 19 meters and other berths can handle vessels with maximum draft of 17 meters. The SPM facility offers a draft of 32 meters.

Heaps of coal was alongside the road. There was PORT based SEZ which was spread in 15000 hectares. There were open stock yard for MINERALS & Closed Stock yards for FERTILIZERS & GRAINS etc. Jetty was divided as DRY CARGO, CONVEYOR BELT for COAL & PIPELINE for Liquid crude i.e. VLCC(Very Large Cargo Container) & ULCC(Ultra Large Cargo Container)

Adani Wilmar Limited

Adani Wilmar Limited (AWL) is a joint venture incorporated in January 1999 between Adani Group, the leaders in International trading & Private Infrastructure with businesses in key industry verticals - resources, logistics and energy. The group was created with a vision of 'Nation Building' by developing assets of national economic significance. Wilmar International Limited - Singapore, Asia's leading Agri-business group & its business activities include oil palm cultivation, oilseed crushing, edible oil refining, sugar milling and refining, *specialty* fat, biodiesel and fertilizer manufacturing and grain processing. It has over 450 manufacturing plants and an extensive distribution network covering China, India, Indonesia and some 50 other countries.



In the refining process, the first step was BLEACHING. Under bleaching, the major impurities were removed from the oil which deteriorated the color of the oil.

The bleached oil was then FILTERED and the heavy impurities were taken out from it. Finally, the strong smell of crude was to be eliminated to get the final product. Thus the DEODERIZATION of oil was done. This process removed all the impurities which were deteriorating the odor of oil.

At 250-270 degrees Celsius, the oil was made to pass high vacuum pressure which refined it completely. Fatty acids, which were removed while deodorizing, were sent to the soap industry.

Other impurities which were extracted from the crude while bleaching and filtration were sent to incense stick making industries. And thus, no part of the crude was wasted at any of the step in the refining process.

After knowing refining, students were taken to the packaging section of the oil industry. Uniform conveyer belt system that connected the whole packaging process into one. The oil bottles were filled and entered into the station where first they were shut with bottle caps. And then they were further passed to put on the Label. Afterwards, a packaging machine packed 36 bottles each at the same time into three different boxes i.e. 12 bottles in one box. Finally the boxes were sealed with tape and were further sent for storage or export.



The whole process was fully automatic and was working on PLCs. The PLCs made the work so easy that not a single human was involved in this process at any instance of time. ADANI WILMAR packaging unit has 6 cold storage units in which the temperature is slowly decreased upto -5 degree Celsius. The fully- equipped Adani Wilmar can produce 6000-7000 liters of oil/hour in the industry.



Despite of rain the visit was much appreciated. The students have also viewed the Jetty and various ships from the bus. The students have also visited Shantinath Mahadev Temple during evening prayer followed by dinner and were engaged in fun games in the campus later.

Next day 31st March morning was started by yoga followed by laughing session.



After yoga session and laughing session everyone had breakfast. The students have check out their rooms for visiting West port and Adani power plant.

Adani Power Plant

The Mundra Thermal Power Project was conceived to provide power for the captive consumption of APSEZ in Mundra. Thereafter the vision and the capabilities of the promoters has made Mundra Power project the largest single location Coal based Thermal Power Station in India and one of the top five in the World. All the nine units of Mundra power plant have been commissioned one after another in shortest possible time of 33 months.

Capacity - 4620 MW (5 X 660 MW + 4 X 330 MW)

Largest single location private coal based power plant in the world. Adani Power created history by synchronizing the first super-critical technology based 660MW generating unit at Mundra.

This is not only the first super-critical generating unit in the country but also



the fastest project implementation ever by any power developer in the country with synchronization within 36 months from the inception.



The Phase III of the Mundra Project, which is based on supercritical technology, has received 'Clean Development Mechanism (CDM) Project' certification from United Nations Framework Convention on Climate Change (UNFCCC).



This is the world's first thermal project based on supercritical technology to get registered as CDM Project under UNFCCC.



The power plant supplied 4620 Mega Watts of energy. Out of these 2000 is supplied to HARYANA, 2000 to GUJARAT government, & 620 is internally used. It uses HVDC (High Voltage DC) for transmission to HARYANA as it is a long distance transmission it is to be converted into DC first & then it is again recovered. Live status of frequency and power generated was available in the control room.



The visit was ended after lunch and feedback to the officials. The buses have started from Mundra around 1 pm and reached Ahmedabad at 10 pm.



The visit was truly professional and well managed till the end. The staff and students were thankful to the Adani foundation and S.P.B Patel Engg. College management for granting the permission for the visit.

Faculty coordinator
Prof. Kalpesh Patel
Lecturer in Mechanical Dept.
S.P.B.PATEL ENGG. COLLEGE,LINCH





INDUSTRIAL VISIT TO “J.K. LAXMI CEMENT GRINDING PLANT

Date: May 20, 2023



S.P.B. PATEL
ENGINEERING COLLEGE
SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

**Professor In charge
- Prof. Visat Patel**

Visitor In charge: Naran
Barad, Sr. Manager (P&A), JK
Lakshmi Cement
Limited

J K Lakshmi Cement Limited,
Village Moti Bhojan, Taluka Kalol,
Ahmedabad,
Gujarat 382721

S.P.B.PATEL ENGINEERING COLLEGE

REPORT ON INDUSTRIAL VISIT TO “J K LAXMI CEMENT GRINDING PLANT” FOR 2021/2022 BATCH CIVIL BRANCH

May 20, 2023

Objective:

The main objective of the visit was to get information about cement production and how the raw materials are homogeneously mixed in a controlled manner to get the proper quality of cement. To provide knowledge beyond the syllabus in the subject of concrete technology.

Summary:

S.P.B. Patel Engineering College has scheduled an industrial visit to the Kalol-based J. K. Lakshmi Cement Plant for May 20, 2023. On this visit, students gained all the necessary field knowledge regarding the production of cement in factories. In this plant, clinkers have been supplied from the mother plant of J. K. Lakshmi Cement Sirohi (Rajasthan). Then limestone, gypsum, and fly ash, along with other additives, were added to the clinker in a controlled manner. Also, after preparing the cement, various tests have been conducted on it to check its quality. After that, cement bags were packed and distributed to the different agencies. From this plant, most of the cement has been supplied in bulk to the different RMC plants located nearby the J. K. Lakshmi cement plant.

Outcomes of Visit-

To get knowledge about the production of cement.

To get the details about the raw materials for cement.

To get the details about effects of change in proportion of raw materials (gypsum, lime),

Course Participant:

The Industrial Visit was organized for the students of the 4th and 6th Semesters of civil engineering. There were 17 students on the visit.

Subject In charge: Prof. Visat Patel

Visitor In charge (Industry): Naran Barad, Sr. Manager (P&A), JK Lakshmi Cement Limited

Location: J K Lakshmi Cement Limited, Village Moti Bhojan, Taluka Kalol, Ahmedabad, Gujarat 382721



S.P.B.PATEL ENGINEERING COLLEGE

Sr. No.	Industry Name and place	Date	No of days	Number of students	Semester	Branch	Name of faculty
1.	S. P. B. Patel Engineering college	May 20 2023	1	17	4th and 6th	Civil	(1) Prof. Visat Patel

Thanks,

Prof. Visat Patel
CIVIL DEPT.

Copy to:

- Events File
- H.O.D. (CIVIL) for kind information
- Principal for the kind information



WEBINAR ON



**S.P.B. PATEL
ENGINEERING COLLEGE**
SAFFRONY INSTITUTE OF TECHNOLOGY CAMPUS

'SUPER CRITICAL THERMAL POWER PLANT'

1. Technical Insights: Operation, key components, and critical point concepts.
2. Benefits: Higher efficiency, reduced emissions, economic advantages.
3. Challenges: Technical complexities, high costs, regulatory hurdles..



**DATE: 9th October
2020**

**DURATION: 30
Minutes**

Mr. Surendrer Kumar

(Principal) TPSDI Mundra, Mr.
Pradip Sarkar

Report on Webinar: 'Super Critical Thermal Power Plant'

Date and Duration: 19th October 2020, 25 minutes

Speakers: Mr. Surendrer Kumar (Principal) TPSDI Mundra, Mr. Pradip Sarkar

Organizers: Mechanical & Automobile Engineering Department

Introduction:

On 19th October 2020, an online expert session on '800 MW Super Critical Thermal Power Plants' was organized by the Mechanical & Automobile Engineering Department for the 7th-semester Mechanical Engineering students. The webinar was facilitated by Tata Power Skill Development Institute (TPSDI), Mundra, Kutch. The primary goal was to acquaint students with the latest technologies employed in Super Critical Power Plants for electricity generation and provide practical insights into their operations in industries.

Webinar Highlights:

1. Objective and Design:

The webinar aimed to bridge the gap between theoretical knowledge and practical application by focusing on the workings of 800 MW Super Critical Boiler Power Plants. Prof. Kamlesh Samadhiya coordinated the session, ensuring a seamless flow of information.

2. Speakers from TPSDI Mundra:

Mr. Surendrer Kumar, the Principal of TPSDI Mundra, and Mr. Pradip Sarkar, provided valuable insights into the operations of Tata Power Company in India. They specifically elaborated on the intricate workings of an 800 MW Super Critical Boiler Power Plant.

3. Technological Advancements:



The session highlighted the latest advancements in Super Critical Thermal Power Plants, shedding light on the technological intricacies involved in achieving efficient and sustainable power generation.

4. Practical Understanding:

Students were exposed to the practical aspects of operating such power plants in real-world industrial scenarios. The speakers shared their experiences, giving the audience a glimpse into the challenges and solutions encountered in day-to-day operations.

Coordination and Feedback:

Prof. Kamlesh Samadhiya's coordination ensured the smooth execution of the webinar. The session was well-received by the students, who found it both interesting and informative. The interactive nature of the webinar allowed students to pose questions and engage in discussions, enhancing their understanding of the subject matter.

Conclusion:

The webinar on 'Super Critical Thermal Power Plant' organized on 19th October 2020 proved to be a valuable learning experience for the 7th-semester Mechanical Engineering students. The collaboration with TPSDI Mundra provided students with real-world insights and practical knowledge about the operations of an 800 MW Super Critical Boiler Power Plant.

The success of this webinar aligns with the department's commitment to enhancing students' understanding of cutting-edge technologies and their applications in the field of Mechanical Engineering. It is anticipated that such sessions will contribute to the holistic development of students and better prepare them for the challenges of the industry.

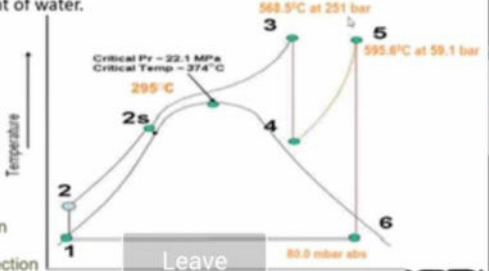
Photographs:

800 MW THERMAL POWER PLANT TECHNOLOGY

Super Critical Power Generation Plant

What is Super Critical Power Generation Plant?
 Super and ultra-supercritical power plants operate at temperature and pressure above the critical point of water.

- 1 - 2 > CEP work
- 2 - 2s > Regeneration
- 2s - 3 > Boiler Superheating
- 3 - 4 > HPT expansion
- 4 - 5 > Reheating
- 5 - 6 > IPT & LPT Expansion
- → Condenser Heat rejection



Leave

800 MW THERMAL POWER PLANT TECHNOLOGY




Leave




800 MW THERMAL POWER PLANT TECHNOLOGY

CGPL 800X5=4000MW Power Plant Main Control Room (MCR)



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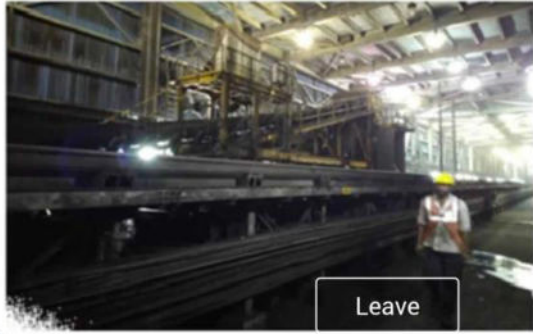


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TPSDI
TATA POWER
SKILL DEVELOPMENT INSTITUTE

800 MW THERMAL POWER PLANT TECHNOLOGY

TRAVELLING TRIPPER



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TATA POWER
SKILL DEVELOPMENT INSTITUTE

800 MW THERMAL POWER PLANT TECHNOLOGY

CGPL 800X5=4000MW Power Plant Main Control Room (MCR)



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800 MW THERMAL POWER PLANT TECHNOLOGY

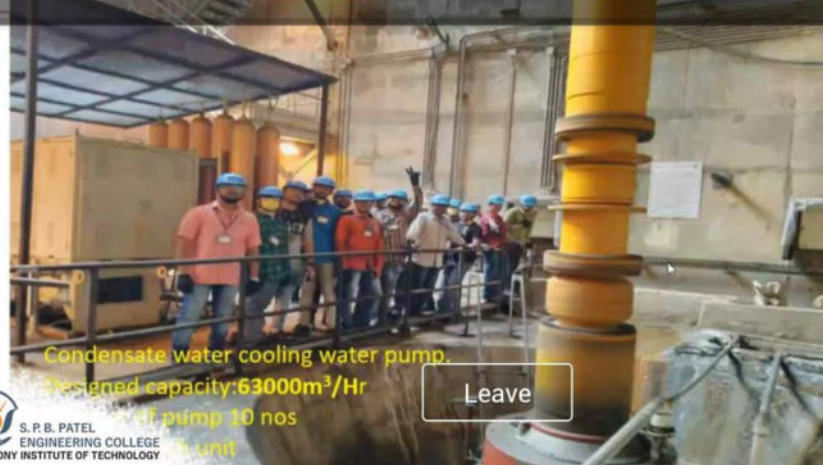
CGPL 800 MW TURBINE HALL



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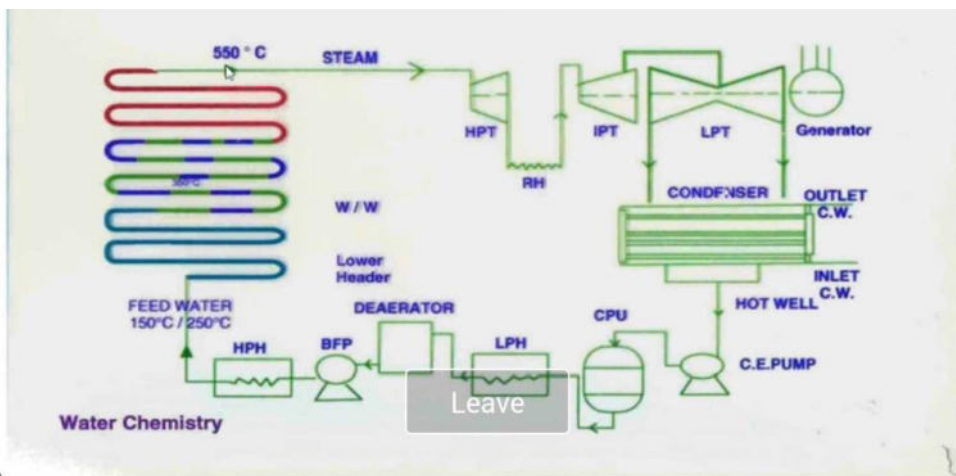


800 MW THERMAL POWER PLANT TECHNOLOGY



Condensate water cooling water pump.
 Designed capacity: 63000m³/Hr
 10 nos of pump 10 unit

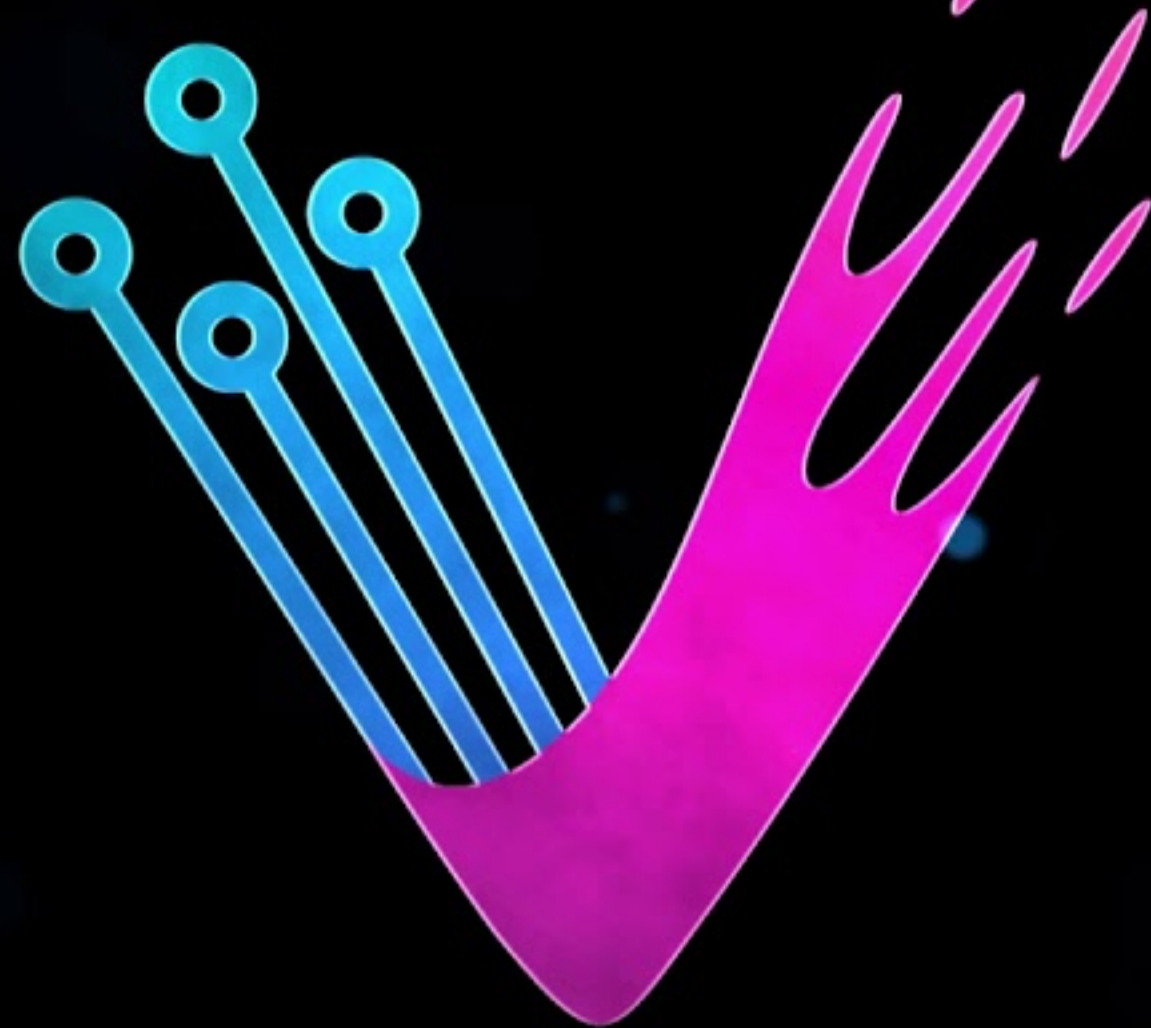
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19th & 20th February 2020



veyg

2K20

[GANITAGYA]

Date: 19th Feb, 2020

Time: 10:00 A.M. to 1:00 P.M.

Venue: S P B PATEL

ENGINEERING COLLEGE,

Participant Capacity [Expected]: 20

Participation : Individual (On the spot Registration available)

No. of Stages/Levels in the event: 01

Participation Fees: Rs 20/- Per student

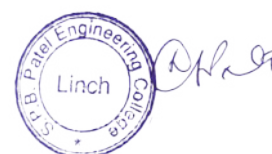
Faculty Coordinator: Prof. Sachin Patel, Prof. Mehul Patel

Student Volunteers/Coordinators:

Sr.No.	Student Name	Enrollment No.	Sem	Branch	Contact No.
1	PATEL PALKUMAR JATINKUMAR	196930319524	2	MECH	9574424577
2	JAIMIN KADIYA	196930319507	2	MECH	7622830125
3	MOHSIN RAZA KURESHI	196930319512	2	MECH	9898486566
4	SHAH KHUSHI S	196930306515	2	CIVIL	6352003794
5	AMISH R THAKOR	196930306518	2	CIVIL	7575812968

● Introduction of the competition:

This event is based on Mathematical/logical puzzles . Participants who solve the puzzle will be awarded with a certificate and prize.



Instruction/Rules:

1. Fees Rs.20/- for a single registration for a single puzzle.
2. Mobile phones are strictly prohibited.
3. 15 min will be given to participants for a puzzle.
4. Only individual participation is allowed.
5. Puzzle solutions will be shown only after the puzzle gets solved(correctly) .
6. Once a puzzle gets solved it will open for exhibition.

Judging Criteria:

Judging will be done by the event coordinator.

Requirements:

Paper Glue ,Fevicol , Poster 20, Colour pages 20, Sellotape 1, Pen 9.

One good paragraph explaining about “How the event happens?(After event)

There were 13 puzzles prepared for the event.The Puzzles contained different types of mathematical problems containing card problems, Geometric puzzles, Reasoning problems, Board Puzzles etc.

Event was started at 10:00 am & The event place was Project Room 115.There were 11 Participants for the event and out of them 9 Participants have solved the puzzle. Those who had solved the puzzle were awarded with consolation prize. Students and faculty members from degree had visited and attempted the puzzles. They enjoyed it a lot. Principal M.A Patel Sir had visited and appreciated the work done by all the team.

List of the Participants: (After event)





Sr.no	Enroll Number	Full Name	Sm	Mobile No	E-mail
1	196930302503	Darji Jay K.	DAU-2	9925946249	jaydarji0508@gmail.com
2	186930319538	Harshil R. Sanglekar	DME-4	9512396566	harshilsanglekar76@gmail.com
3	196930319545	Siddh Patel	DME-2	9824133364	siddhpatel32@gmail.com
4	176930302527	Jinesh Sata	DAU-6	9727683161	satajinesh19@gmail.com
5	176930302511	Patel Ayush Bhadreshbhai	DAU-6	9879913543	ayushpatel2270@gmail.com
6	Faculty	Prof. Mahesh Patel			
7	Faculty	Prof. Keyur Modi			
8	Faculty	Prof. Ramprakash Inani			
9	Chavda Pankaj Narendrabhai	156930319506	DME-6	9924336108	pankajchavda594@gmail.com
10	Barot Tirth Jagdishbhai	176930319501	DME-4	9316249133	---
11	Faculty	Prof. Hardik Trivedi			

Photographs of the event: (After event)





Report on VEYG-2k19 at Saffrony Institute of Technology

Introduction:

VEYG-2k19, a two-day technical festival, was organized at Saffrony Institute of Technology on 19th and 20th March 2019. This event aimed to showcase the technical prowess, innovation, and collaborative spirit of the students at the institute.

Day 1 - Project Exhibitions:

The first day of VEYG-2k19 was marked by an array of project exhibitions that highlighted the diverse talents of the students. First-year students presented engineering models, while 2nd and 3rd-year students showcased their design thinking projects. The highlight of the day was the final year project exhibition, where 4th-year students displayed their culminating works. The event created a platform for students to exhibit their creativity and technical skills to both faculty members and their peers.

Collaboration and Feedback:

Faculty members and fellow Saffronites actively participated in the event by taking the time to visit each project. The atmosphere was one of collaboration and mutual support, with individuals providing constructive feedback and helping each other progress. This not only enhanced the quality of the projects but also fostered a sense of camaraderie within the institute.

Day 2 - Departmental Activities:

The second day of VEYG-2k19 was dedicated to department-specific activities and competitions. Faculty members from various departments engaged students in technical activities that were aligned with their academic disciplines. These activities not only provided students with hands-on experience but also allowed them to apply their theoretical knowledge in practical scenarios. The competitions added a layer of healthy competition and excitement to the event.

Conclusion:

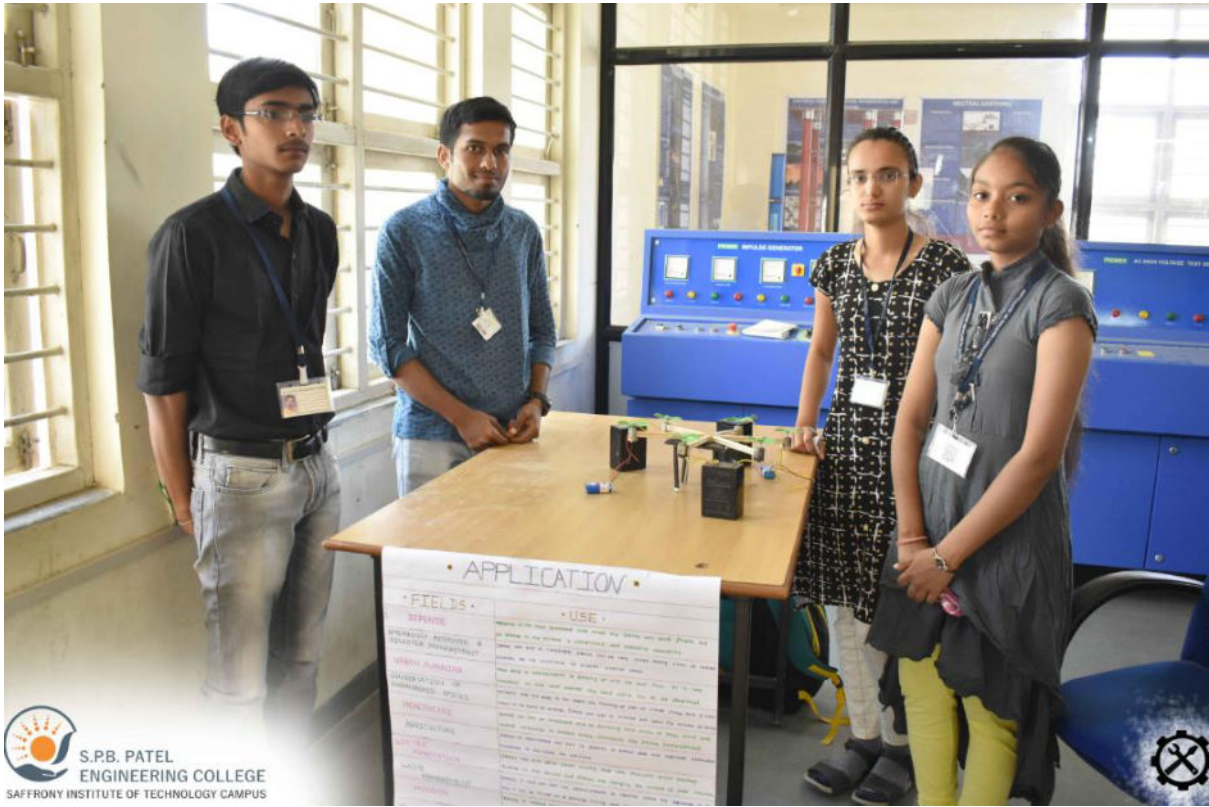
VEYG-2k19 at Saffrony Institute of Technology was a resounding success, bringing together students, faculty, and staff in a celebration of technical excellence and innovation. The event not only showcased the achievements of the students but also encouraged collaboration and the exchange of ideas. The combination of project exhibitions and departmental activities contributed to the holistic development of the students, emphasizing both creativity and technical proficiency.

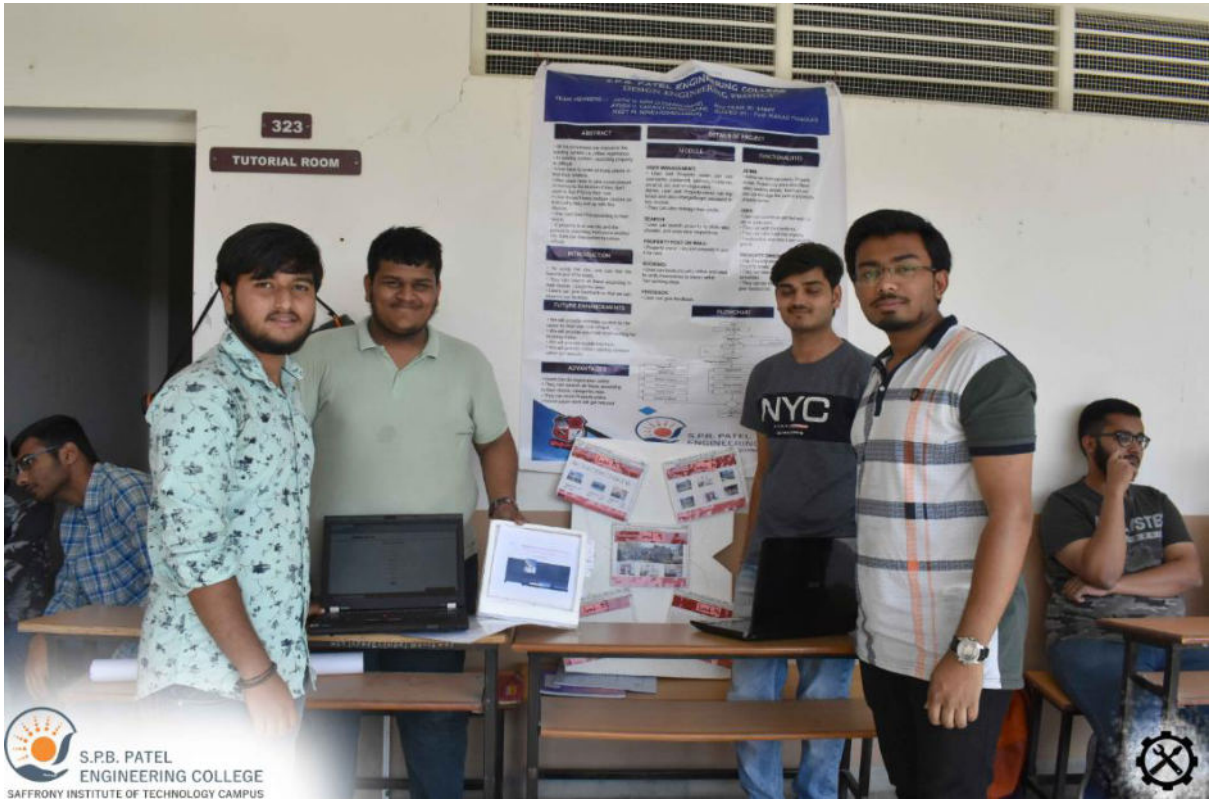
The success of VEYG-2k19 reflects the commitment of Saffrony Institute of Technology to provide a comprehensive educational experience that goes beyond traditional classrooms. Events like these not only promote technical skills but also nurture a culture of teamwork, innovation, and continuous learning within the institute.

Photographs:

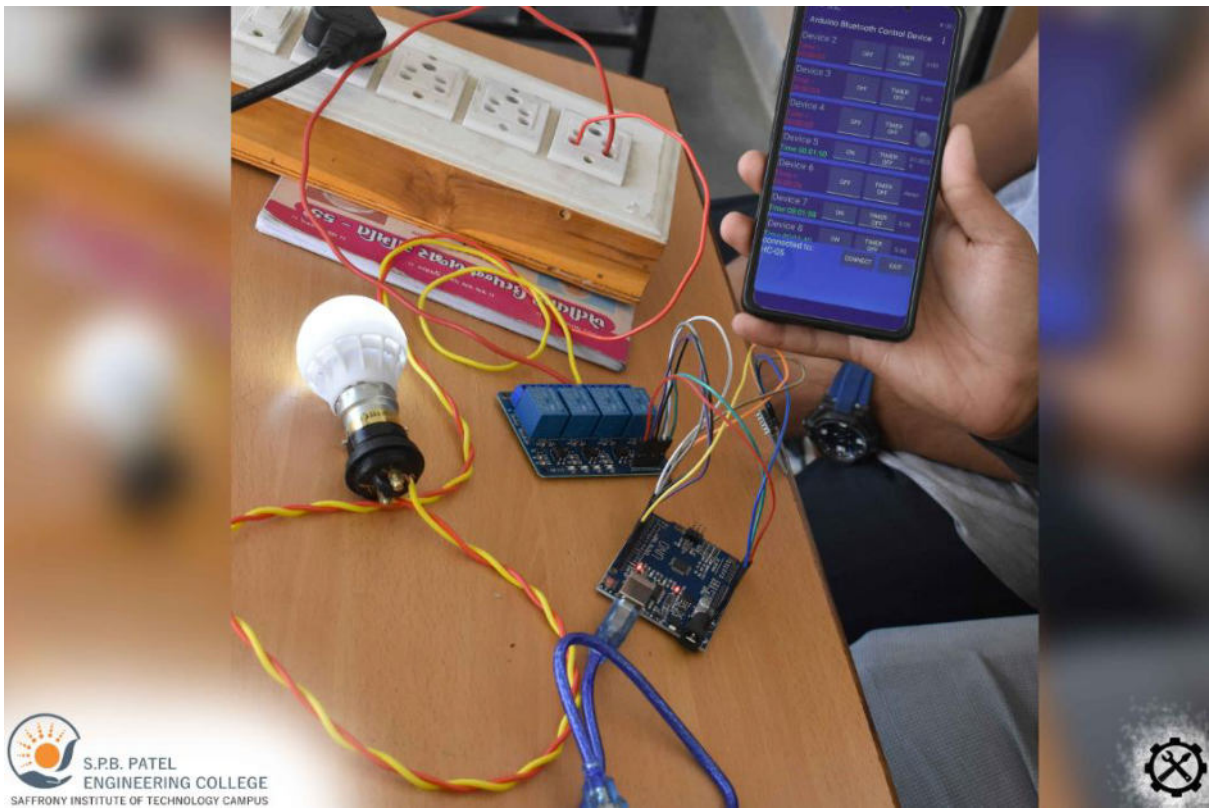


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 Linch *[Signature]*



WORKSHOP ON 'CREO FOR BEGINNERS'

Date: 23rd January 2019

Duration: 40 hours

Organizers: Mechanical and Automobile Engineering Departments, Saffrony Institute of Technology

Objective:

Recognizing the necessity for students to go beyond the standard curriculum and stay abreast of industry demands, the Mechanical and Automobile Engineering Departments of Saffrony Institute of Technology collaborated to organize a hands-on training session. The workshop, titled 'Creo for Beginners,' aimed to equip 6th-semester Mechanical and Automobile Engineering students with practical skills in CREO, a leading Computer-Aided Design (CAD) software widely utilized by industry giants like Mitsubishi, BMW, and Bosch.

Workshop Overview:

1. Introduction:

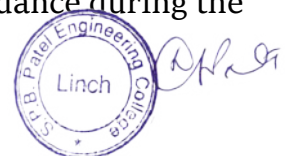
- The workshop commenced with a brief introduction emphasizing the importance of staying updated in the competitive world. The organizers highlighted the need for students to acquire skills beyond the regular syllabus.

2. Hands-on Training on CREO:

- The core focus of the workshop was hands-on training on CREO by Parametric Technology Corporation (PTC). Students actively participated in learning the sketcher module, a fundamental component of CREO. The software's relevance in industries such as automotive (Mitsubishi, BMW) and engineering (Bosch) was underscored.

3. Facilitators:

- Prof. Kunalsinh Kathia and Prof. Yuvrajsinh Parmar, experts from the Mechanical and Automobile Engineering departments, led the sessions. Their expertise contributed to the effective delivery of content and guidance during the hands-on exercises.



4. Curriculum Alignment:

- The sessions were thoughtfully designed to align with the students' ongoing studies and future projects. Practical applications of the CREO software were emphasized to enhance their understanding of Design Engineering and Final Year Projects.

5. Student Engagement:

- The interactive nature of the sessions ensured that students actively participated and practiced examples. The learning atmosphere was dynamic, encouraging questions and discussions.

6. Enjoyment and Learning:

- Students not only gained valuable insights into the basics of CAD and CREO but also thoroughly enjoyed the learning process. The combination of practical exercises and industry-relevant content contributed to a positive and enriching experience.

Conclusion:

The 'Creo for Beginners' workshop proved to be a successful initiative in bridging the gap between theoretical knowledge and practical application for 6th-semester Mechanical and Automobile Engineering students. The event's impact was evident in the students' active engagement, enjoyment, and the valuable skills acquired during the hands-on training.

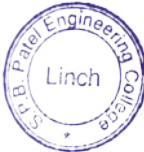

As the workshop concluded, participants left with not only enhanced knowledge of CREO but also a heightened awareness of the real-world applications of CAD in their academic and professional pursuits.

Photographs:



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PLASTIC TIDE TURNER WORKSHOP

Dive into sustainability
solutions.

Join us to learn how to
reduce plastic waste.



Limited slots available

VENUE:SAFFRONY

23 October 2019

Be the change you want to see.

Register now!



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Report On *Plastic Tide Turner Workshop*



In collaboration with
Centre for Environment Education (CEE),
Thatlej Tekra ,Ahmedabad

Highlights of Workshop Details:

Name of Speaker: Abhishek Pawar and Sandip

Date: 23rd October, 2019

Duration: 10:00 AM to 4:00 PM

Faculty Co-ordinator: Prof. Kumkum Bhattacharya, Prof. Ajay Gupta, Prof. Avani Dedhia

Venue: Auditorium, Saffrony Institute Of Technology

No. of Participants: Around 120 students from 1st Semester students of Mechanical, Civil, Computer and IT branch.

Introduction and Objective of Workshop

The Centre for Environment Education (CEE) in India was established in August 1984 as a Centre of Excellence supported by the Ministry of Environment and Forests. The organization works towards developing programmes and materials to increase awareness about the environment and sustainable development.

The Centre for Environment Education was created in recognition of the importance of environmental education in India's overall environment and development strategy. The CEE was established as a Centre of Excellence in 1984, supported by the Ministry of Environment and Forests (MoEF), Government of India. Mr. Kartikeya Sarabhai is the Director of CEE.

CEE has inherited the rich multi-disciplinary resource base and varied experience of Nehru Foundation for Development, its parent organization, which has been promoting educational efforts since 1966 in the areas of science, nature study, health, development, and environment.

The main motto was to encourage the young minds, so this initiative was taken by saffrony students to carry forward this campaign.

What is “**Plastic Tide Turners Challenge**”?

We all are living in an age of plastics. Plastics certainly have advantages of being light weight, long-lasting and relatively inexpensive. Unfortunately, they also bring problems to our world, as they cannot degrade and stay on earth for countless years.

The concrete idea behind the workshop was to create awareness and socially responsible human being for every deed. The faculty members and students understand the usage of plastic and create strong thinking process about the issue, and to interact, exchange of ideas with one another. The basic aim of this workshop was to understand and ignite the minds in this same direction.



MORNING SESSION:

The days begin with basic introduction about “CEE “and its work areas in different fields. The day begins basic introduction the demerits of plastic usage and the students view and ideas. The students were engaged with some questionnaires, in them few questions are listed down:

1. Plant a tree?
2. If you have to told anyone to throw garbage in dustbin?
3. Ever brought organic products? Etc

The session again started with another question “**Is banning plastic is a solution**” ...The solution is not to ban all plastics all of a sudden. What is now needed is an immediate stoppage of single use plastics that is either not essential or is substitutable with other environmentally friendly options. After that fun activity the students were shown the following videos to understand the facts and real hidden depth in perspective to this campaign.

The below link videos were shown to create awareness:

<https://www.youtube.com/watch?v=xLx4fVsYdTI>

<https://www.youtube.com/watch?v=6xINyWpB8&t=65s>

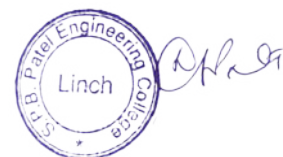
<https://www.youtube.com/watch?v=Mh-bJetDYqM>

Then the speakers from CEE highlighted all about “plastic tide turners challenge” and they shared their presentation and approached the students with some questions. The speakers then ensured the students with level of importance of this campaign and thereby encouraged for registration and the levels of this campaign.

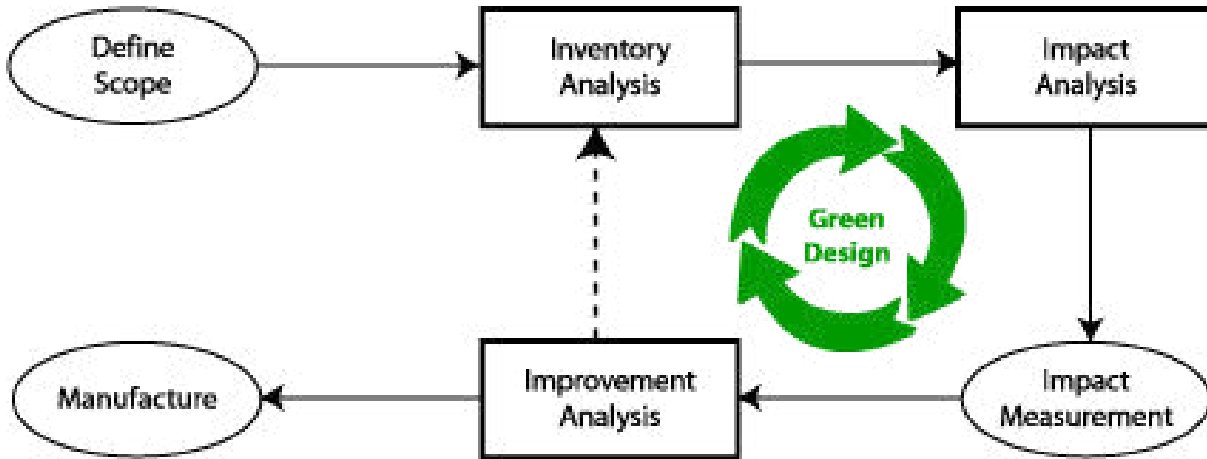
Post lunch session:

ACTIVITY -1

In this activity the students were divided in various groups and given different material. The different material were – white board duster, punching machine, speaker , mike , cassette ,pointer etc .The task was to find the life cycle analysis of that material., the activity was to find step wise – inventory analysis – production- impact on earth analysis. All the students’ team members screwed their brains and after all that they got activity score of LCA of their products. The LCA of few material s are: mobile charger -64, mike-97, pen drive -50 etc. After the activity we were having questionnaires with students about “life cycle analysis”, it gave them and us different

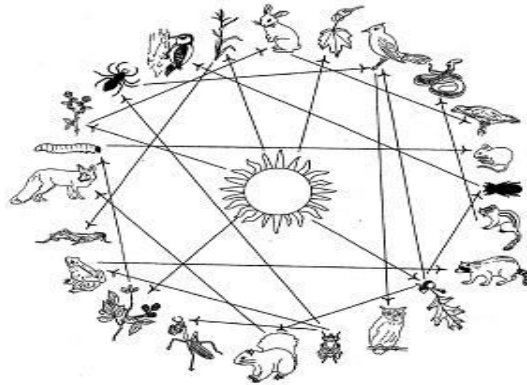


approach about our thinking process and also made us understand that “plastic life analysis”. This activity created more impact on students about the plastic impact on earth.



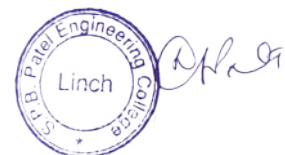
ACTIVITY – 2

WEB OF LIFE



This activity was carried out to make everyone understand the meaning of different ecosystem, and existence of each life species and its importance in balancing the ecosystem. The activity helped each everyone to realize the role of each species except the “human beings”.

The activity highlighted Charles Darwin theory “**Survival to the fittest**”.



After that activity vote of thanks was given to our speakers and then we divided our students into their area of stay – zone wise and they were allotted with their team members to discuss the topic and school, society and their work.

Recycle for the life cycle.

