

# Academic Year

## 2023-24

(IETE)

**IETE RGIT 2023-24**  
**CORE TEAM**

<b>CORE</b>		
YASHESH VAIDYA	CHAIRPERSON	BE
VISHAL SOLANKI	GENERAL SECRETARY	BE
AMIT YADAV	VICE CHAIRPERSON	BE
ASHLESHA YADATE	JOINT GENERAL SECRETARY	BE
YASH VARDHAN	JOINT GENERAL SECRETARY	BE
TUSHAR PAWAR	TREASURER	BE

**SENIOR CORE TEAM**

<b>SECRETARY</b>		
PRATHMESH TALAVDEKAR	TECHNICAL SECRETARY	BE
VARAD LAD	TECHNICAL SECRETARY	BE
ANIKET AYRE	MARKETING SECRETARY	BE
AMAR KAMBLE	MARKETING SECRETARY	BE
ASHWINI MANE	EVENT MANAGEMENT SECRETARY	BE
KRUTIKA PATIL	EVENT MANAGEMENT SECRETARY	BE
YASHSHREE PATIL	DIGITAL CREATIVE SECRETARY	BE
OMKAR CHAVAN	DIGITAL CREATIVE SECRETARY	BE
YASH GOVALKAR	PUBLICITY SECRETARY	BE
PUJA KATHOLE	PUBLICITY SECRETARY	BE
KAUSTUBH PARAB	DOCUMENTATION SECRETARY	BE
MIHIR KAKERA	DOCUMENTATION SECRETARY	BE



## List of Events:

Date	Event	Speaker	Participant
04-08-2023	Latex Workshop BE - A	Ms. Apurva Dhote	40
07-08-2023	Latex Workshop BE - B	Ms. Apurva Dhote	48
05-09-2023	Teacher's Day Celebration	-	-
08-09-2023	Cyber Security Workshop Day 1	Mr. Sachin Dedhia	32
09-09-2023	Cyber Security Workshop Day 2	Mr. Sachin Dedhia	32
13-10-2023	Flutter Development Workshop	Mr. Saksham Avasthi	35
14-10-2023	PCB Designing Workshop Day 1	Mr. Amit Yadav & Mr. Aditya Wavale	65
14-10-2023	PCB Designing Workshop Day 2	Mr. Amit Yadav & Mr. Aditya Wavale	65
30-01-2024	Cyber Crime Investigation and Digital Forensics	Mr. Siddarth Ghoghari	30
31-01-2024	Arduino Workshop for SE-B	Mr. Amit Yadav & Mr. Aditya Wavale	20
01-02-2024	Arduino Workshop for SE-A	Mr. Amit Yadav & Mr. Aditya Wavale	43
02-02-2024	IETE Students Day	-	-
12 – 03-2024	FPGA Workshop	Ms. Shaista Khanam & Ms. Trupti Shah	48
18 -03-2024	Industrial Visit to BSNL for BE-B	BSNL Instructor	59
19-03-2024	Industrial Visit to BSNL for BE-A	BSNL Instructor	56
20-03-2024	Industrial Visit to BSNL for TE-B	BSNL Instructor	45
21-03-2024	Industrial Visit to BSNL for TE-A	BSNL Instructor	40



## Latex Workshop

DATE: 4<sup>th</sup> & 7<sup>th</sup> August 2023

VENUE: Class B-41

The IETE Committee of Rajiv Gandhi Institute of Technology organized a Latex Workshop on the 4<sup>th</sup> and 7<sup>th</sup> of August 2023 for BE-A division and B division respectively. It was a highly informative event which aimed to provide hands-on practice for BE students on the aspects of doing documentation work on the open-source, scientific tool.

Miss Apurva Dhote an alumni of Rajiv Gandhi institute of technology is very exceptional at using the Latex software and its application, served as the resource person for the workshop. With her knowledge and experience, she was well-equipped to guide the participants through the intricacies of Latex and provide hands-on training.

The event started at 12:30 pm as scheduled on both days with Miss Apurva Dhote welcoming the students and briefing them about the importance of the LaTeX software and its application in creating reports and documents. She went on explaining its features, and its relevance in the field of document creation. She highlighted the advantages of using Latex over traditional word processors and explained its compatibility with different operating systems.

The participants were guided through the process of installing Latex on their respective devices. The Volunteers provided step-by-step instructions and addressed any technical queries that arose during this phase.

After the installation phase was completed by each student the event proceeded to next phase. The workshop then delved into the practical aspects of creating documents using Latex. Miss Apurva demonstrated the syntax and structure of Latex code and explained how to format text, create sections and subsections, insert equations, tables, figures, and references. She also explained the process of generating a table of contents and managing bibliographies using Latex. To reinforce the concepts discussed, the participants were given the opportunity to engage in hands-on exercises. Miss Apurva provided sample exercises and encouraged the students to create their own documents, guiding them throughout the process. This interactive session allowed the participants to gain practical experience in using Latex.

Miss Apurva actively engaged with the attendees throughout the workshop, encouraging them to ask questions and look for clarification on any issues they had. This interactive method encouraged a favourable learning atmosphere, making certain that the students learned how to implement Latex and its applications.

The Latex Workshop organized by the IETE Committee, with Miss Apurva Dhote as the speaker, proved to be an enlightening and educational event. The workshop successfully introduced the students of BE



EXTC to the Latex software and provided them with valuable insights into creating reports and documents using Latex which will prove useful to students while preparing their respective reports for their final year projects. Overall, the Latex Workshop was a resounding success.



Miss Apurva Dhote conducting the workshop



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Volunteers providing assistance to the participants



Participants present at the workshop



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## Report on PROTEUS workshop

**Speaker:-** Mr. Karan Gupta

**Total participant count:- 60**

The IETE Technical team conducted a **6-day** workshop on **PROTEUS** software exclusively for the second-year students of EXTC department at Rajiv Gandhi Institute of Technology, Andheri (w). The session was taught by IETE Technical Secretary Mr. Karan Gupta.

The beginning of the event was marked by warm welcome of all participants by the event host. The event was held on 28<sup>th</sup> of September, 5<sup>th</sup>, 12<sup>th</sup>, 14<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup> of October on **Google Meet** platform.

This 6-day schedule was divided into different topics such as Installation procedure, Regulator Circuit Design, Regulator Circuit PCB Layout, 555 IC Circuit Design(Monostable mode) and 555 IC Circuit PCB Layout. Along with all these topics the students were given a brief idea on how to use ARDUINO Boards in Proteus. This workshop would provide a helping hand for the students with regards to their simulation related mini projects.

After that a special doubt solving session was conducted separately after the second session. Following each session there was a google form circulated which included questions regarding that particular session. A total number of students present during the workshop were around 60. The overwhelming response from SE students was the real success of the Proteus Workshop.



## Cyber Security Workshop

DATE: 8<sup>th</sup> & 9<sup>th</sup> September 2023

VENUE: 1<sup>st</sup> Floor, Seminar Hall, RGIT.

The IETE Committee of Rajiv Gandhi Institute of Technology organized a Cyber Security Workshop on 8<sup>th</sup> and 9<sup>th</sup> September 2023, conducted by Mr. Sachin Dedhia (Founder & CEO, Skynet Secure Solution) offered participants a comprehensive insight into various aspects of cybersecurity. The two-day event covered a range of topics, blending theoretical knowledge with hands-on practical exercises.

The event commenced with the introduction of the speaker Mr. Sachin Dedhia (Founder & CEO, Skynet Secure Solution). The guest speaker was felicitated by the Chair Person of IETE RGIT, Yashesh Vaidya, and welcome to the Institute. The stage was taken over by the speaker to get the session going.

Mr. Sachin Dedhia began the day 1 of the workshop by illustrating the real-world cyber threats, delving into the case of a Korean hacker who successfully targeted the bank in Pune, Maharashtra. This practical example served as a backdrop to discuss cybersecurity challenges faced by organization.

The participants were guided through the process of installation of Kali Linux, a widely used penetration testing platform on their respective devices. The Volunteers provided step-by-step instructions and addressed any technical queries that arose during this phase. This hands-on activity aimed at familiarizing attendees with essential tools for ethical hacking and security testing.

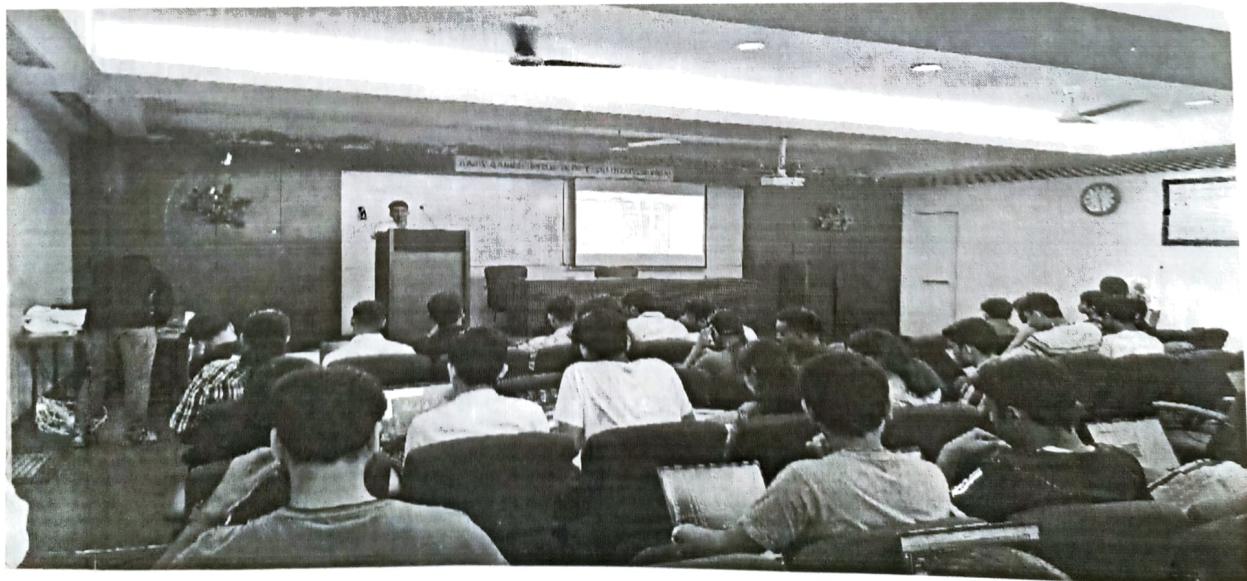
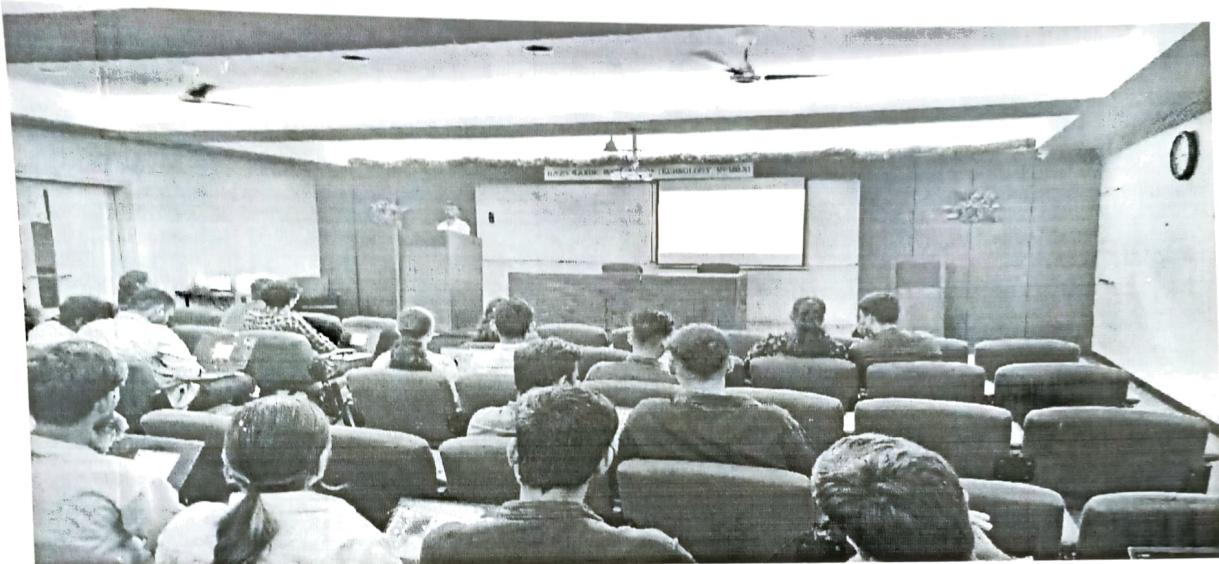
After the installation phase was completed by each student the event proceeded to next phase. The workshop delved into the practical aspects of encryption and decryption techniques, with a focus on securing communication over the internet. Participants gained the practical knowledge by applying these concepts to a simulated website.

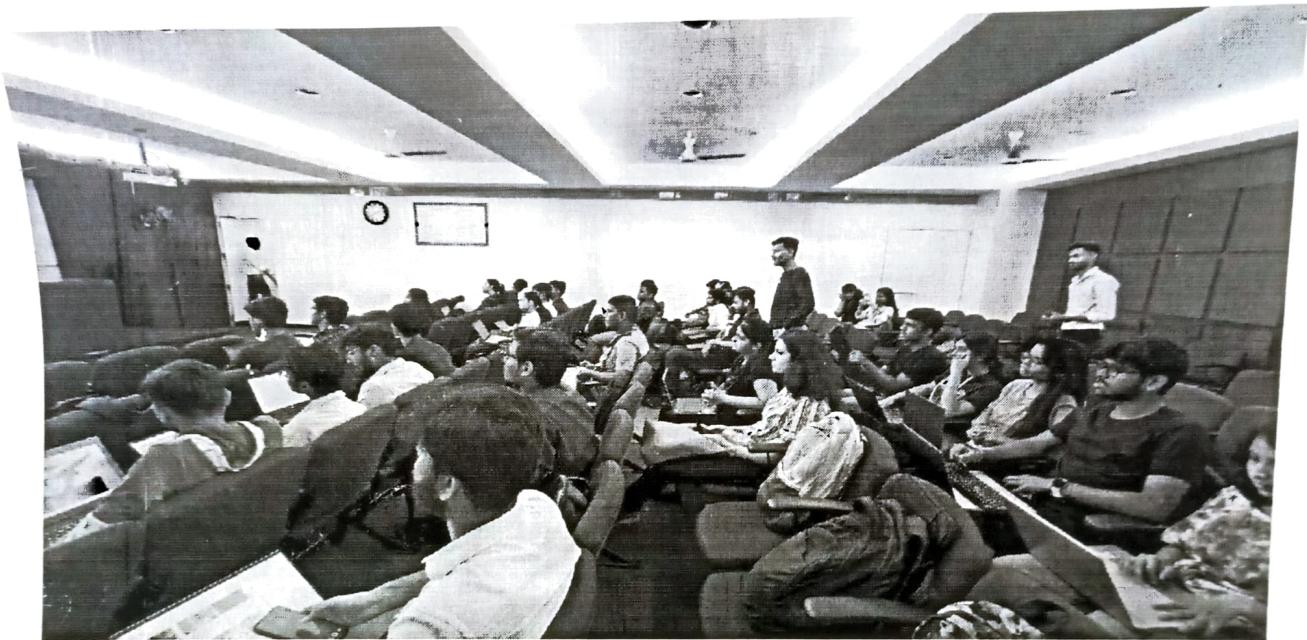
The 2<sup>nd</sup> day of the workshop focused on offensive security techniques. Participants were guided through the usage of the Metasploit framework to create payloads and gain insights into ethical hacking practices. Using the knowledge gained, attendees actively participated in creating and deploying payloads to hack Windows system. This hands-on exercise provided a practical understanding of vulnerabilities and exploitation. Mr. Sachin Dedhia introduced participants to Burp-Suite, a powerful cybersecurity tool for web application security testing. Attendees learned how to use it for mapping and analyzing the security posture of web applications.

The Cybersecurity workshop organized by the IETE Committee, with Mr. Sachin Dedhia as the speaker, proved to be a valuable experience for participants, blending theoretical knowledge with practical applications. Attendees left with enhanced skills in ethical hacking, penetration testing, and a deeper understanding of cybersecurity challenges. The combination of real-world examples and hands-on activities made the workshop engaging and impactful, contributing to the participants' proficiency in the field of cybersecurity.



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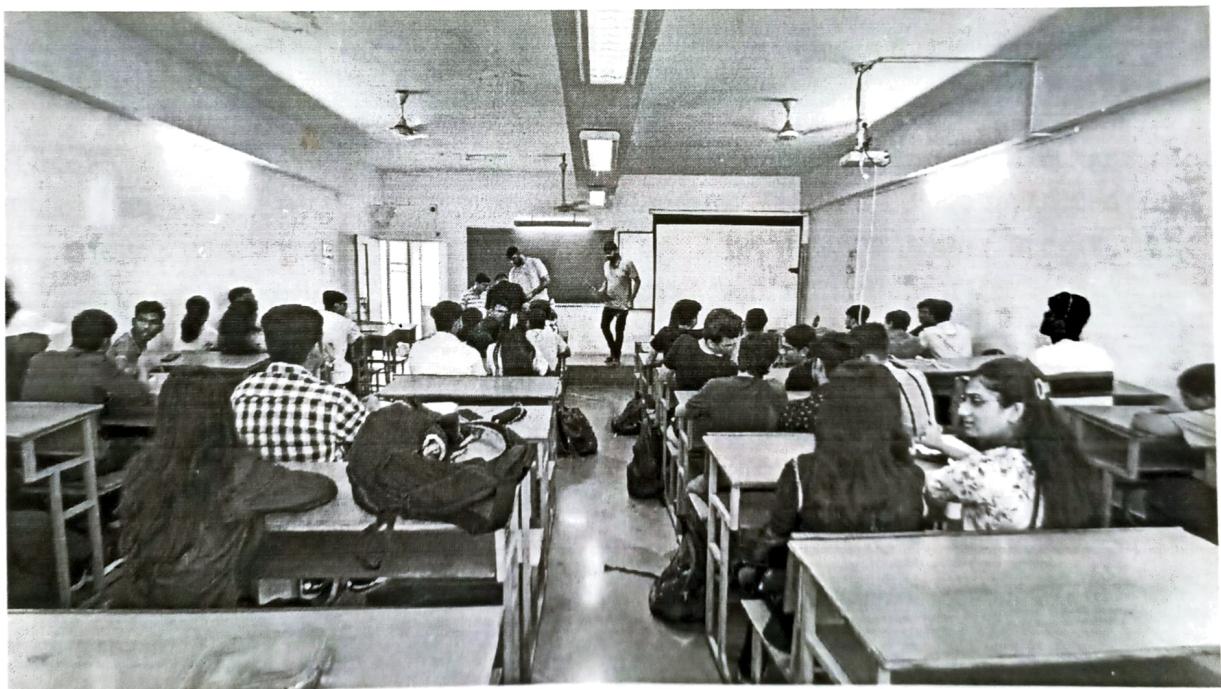


## PCB Designing Workshop

DATE: 14<sup>th</sup> & 15<sup>th</sup> October 2023

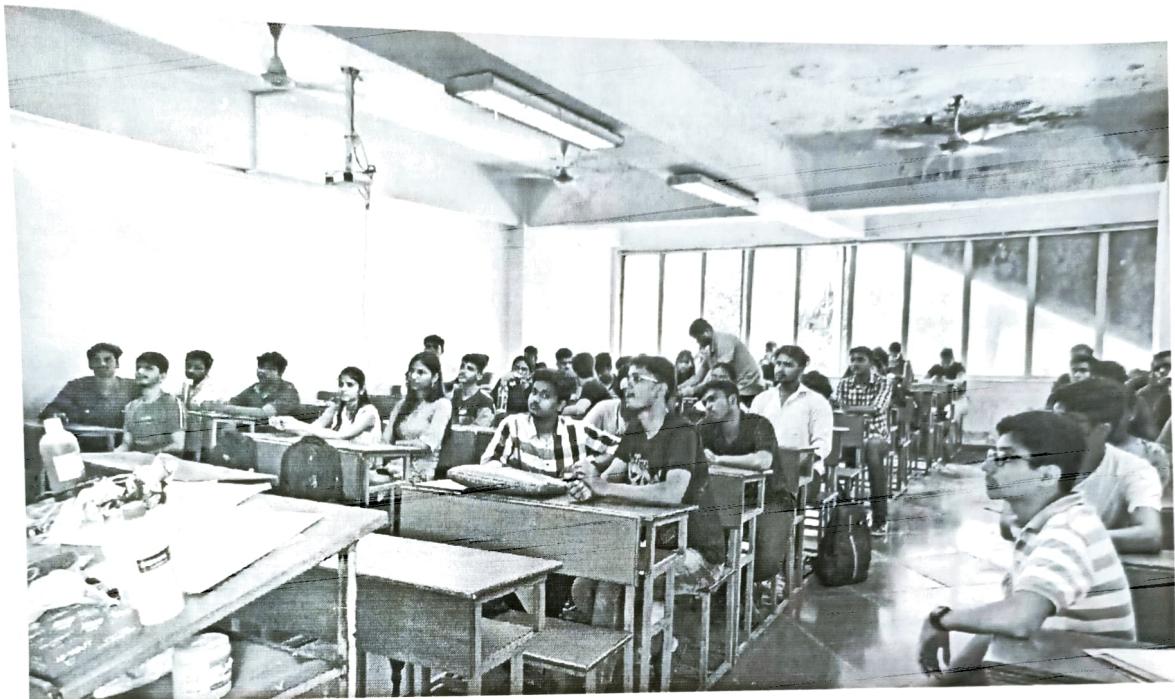
VENUE: 2<sup>nd</sup> Floor, RGIT.

The IETE Committee of Rajiv Gandhi Institute of Technology organized a PCB Designing Workshop on 14<sup>th</sup> and 15<sup>th</sup> October 2023, collaborating with AERO RGIT. Amit Yadav and Aditya Wavale conducted two-day workshop for 2<sup>nd</sup> year EXTC students covering both online and offline modes. The event aimed to provide participants with practical insights into the process of designing and fabricating PCBs, a fundamental skill in the field of electronics.



On day 1 (online) speakers explained the basics of the Arduino to the participants. Give the live demonstration of circuit design on proteus software and make the design of the circuit. Participants learned the creation of a circuit design on proteus software during the session.

On day 2 (offline), participants gained hands-on experience in PCB designing. The speakers demonstrated the process of printing circuit designs on PCB boards and facilitated the implementation of a project using the necessary components. Speakers gave the practical application and project execution on site.

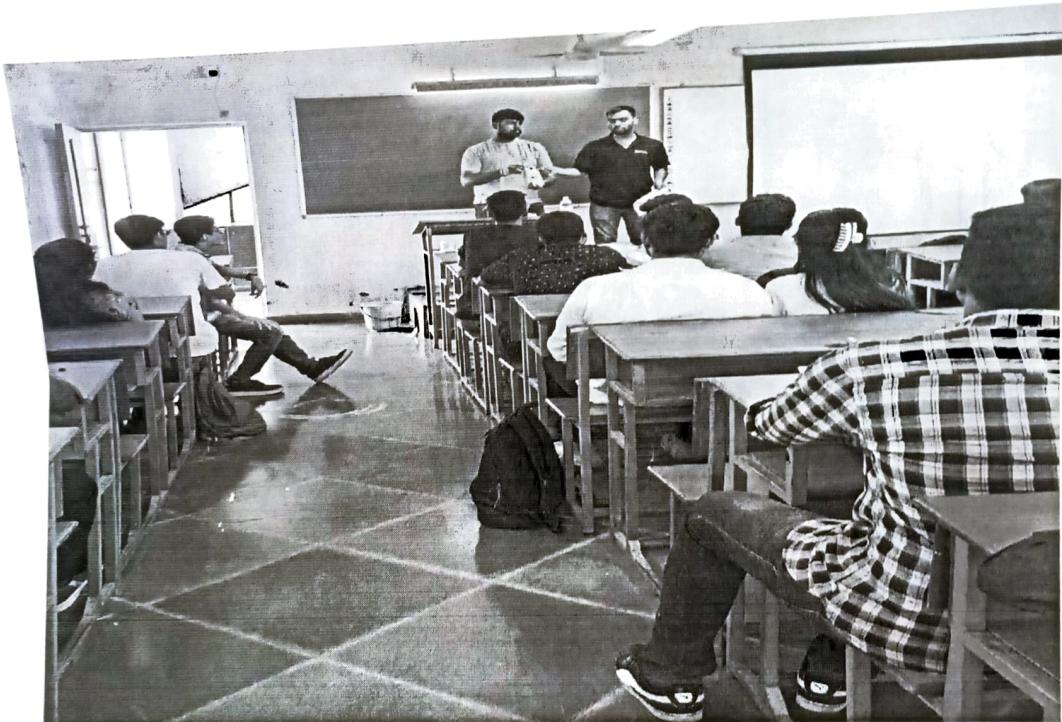


The workshop successfully covered both theoretical and practical aspects of PCB designing. Day 1 focused on understanding Arduino basics and hands-on experience with Proteus software, while Day 2 provided a deeper insight with offline hands-on activities. The live demonstrations facilitated effective learning, and participants gained valuable experience in circuit design and PCB printing. The speakers, Amit Yadav and Aditya Wavale, contributed to a comprehensive learning experience, ensuring participants left with a solid understanding of PCB designing.





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## **Report on Digital Forensic Workshop**

DATE: 30<sup>th</sup> January 2024.

VENUE: Class B41, RGIT.

The IETE committee of Rajiv Gandhi Institute of Technology organized Data Forensics, held on January 30, 2024, in Classroom B41 from 1 pm to 4 pm, provided an immersive learning experience on Digital Forensics, covering tools used in data forensics like FTK, etc, computer forensic investigation process, deleted data recovery, and writing investigation reports.

The speaker was Siddharth Ghoghari (co-founder of CyberMars Forensics Pvt Ltd). The workshop commenced with an introduction to data forensics, highlighting its relevance and applications in various domains such as law enforcement, cybersecurity, and corporate investigations. Mr. Ghoghari elucidated the fundamental principles and methodologies involved in data forensics, emphasizing the importance of preserving digital evidence and adhering to proper forensic procedures.

Throughout the workshop, interactive sessions and hands-on activities were integrated to encourage active participation and reinforce learning. Participants were given the opportunity to practice data recovery and analysis techniques using simulated case scenarios, allowing them to apply theoretical knowledge in practical contexts under Mr. Ghoghari's guidance.

The Data Forensics Workshop conducted by the IETE Committee of RGIT, with Mr. Siddharth Ghoghari as the speaker, proved to be immensely informative and enriching for all participants. By imparting valuable insights into the intricacies of data forensics and providing hands-on experience with forensic tools and techniques, the workshop succeeded in equipping students with essential skills and knowledge essential for navigating the complexities of digital investigations.



## Glimpses of Digital Forensic Workshop



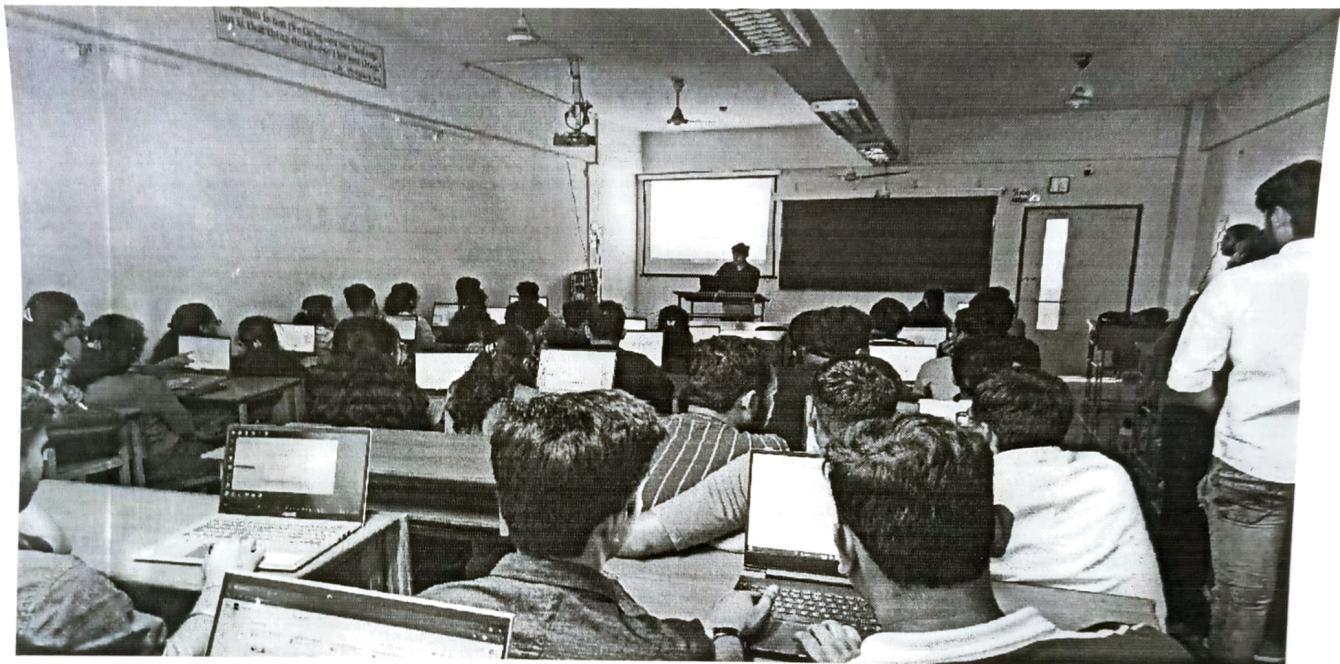


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## Report on Arduino Workshop

DATE: 31<sup>st</sup> January 2024 (SE B Division) & 1<sup>st</sup> February, 2024 (SE A Division)

VENUE: Class B51, RGIT.

The IETE committee of Rajiv Gandhi Institute of Technology organized an Arduino workshop, held on January 31, 2024, for SE-B div and February 1, 2024, for SE-A div, in Classroom B51 from 2 pm to 4 pm, provided an immersive learning experience for 2nd-year students, covering Arduino basics, hands-on coding, simulation using Proteus software, and practical project implementation. The event included two Arduino-based projects – a Traffic Light System and a Gas and Flame Detector – which further enriched the participants' learning.

The speakers were Amit Yadav and Aditya Wavale. The workshop began with Aditya Wavale delivering an engaging introduction to Arduino, emphasizing hands-on learning in electronics. Following this, practical sessions on Arduino board components and IDE usage were conducted. Amit Yadav concurrently introduced students to Proteus simulation software, showcasing its role in testing Arduino projects virtually.

The hands-on coding sessions allowed students to apply their knowledge practically, with Proteus aiding in real-time visualization of code execution. Students were enthralled as they translated their skills into creating a functional project.

Remarkably, two additional projects, a Traffic Light System and a Gas and Flame Detector, were undertaken by participants. The Traffic Light System project demonstrated the application of Arduino in creating a simulated traffic control mechanism. Participants coded and simulated the project, emphasizing the integration of various components. The Gas and Flame Detector project showcased the practical utility of Arduino in safety applications. Students interfaced with sensors, coded for detection algorithms, and simulated the entire system in Proteus, gaining insights into real-world applications.



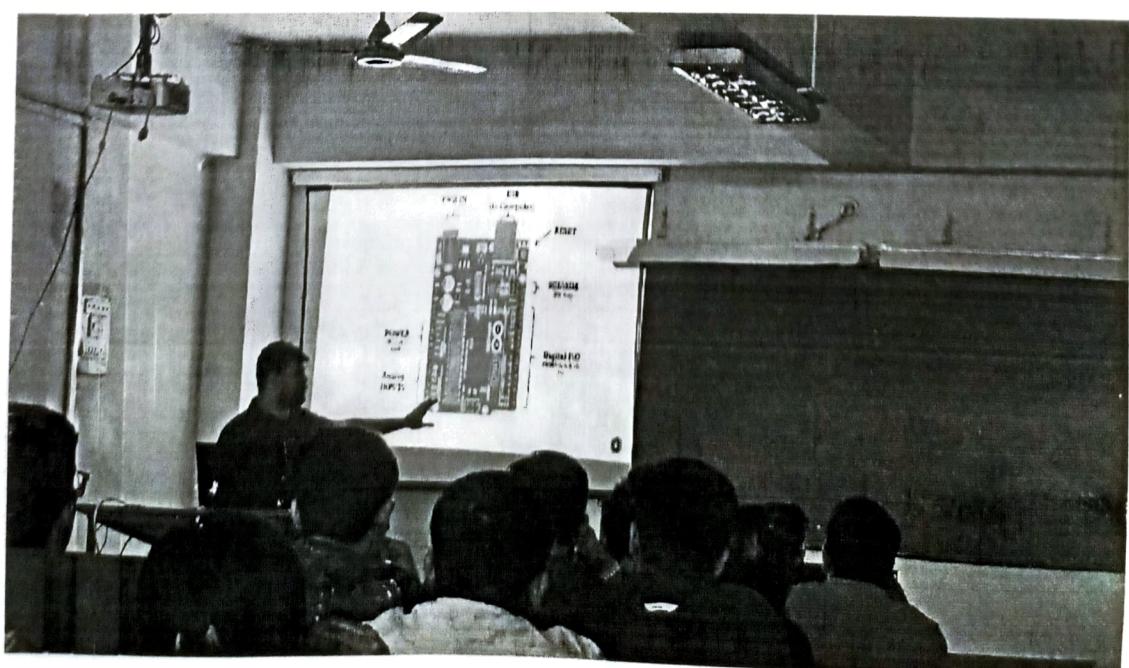
A dedicated question and answer session provided participants with the opportunity to clarify doubts and seek further clarification on various aspects of Arduino and Proteus.

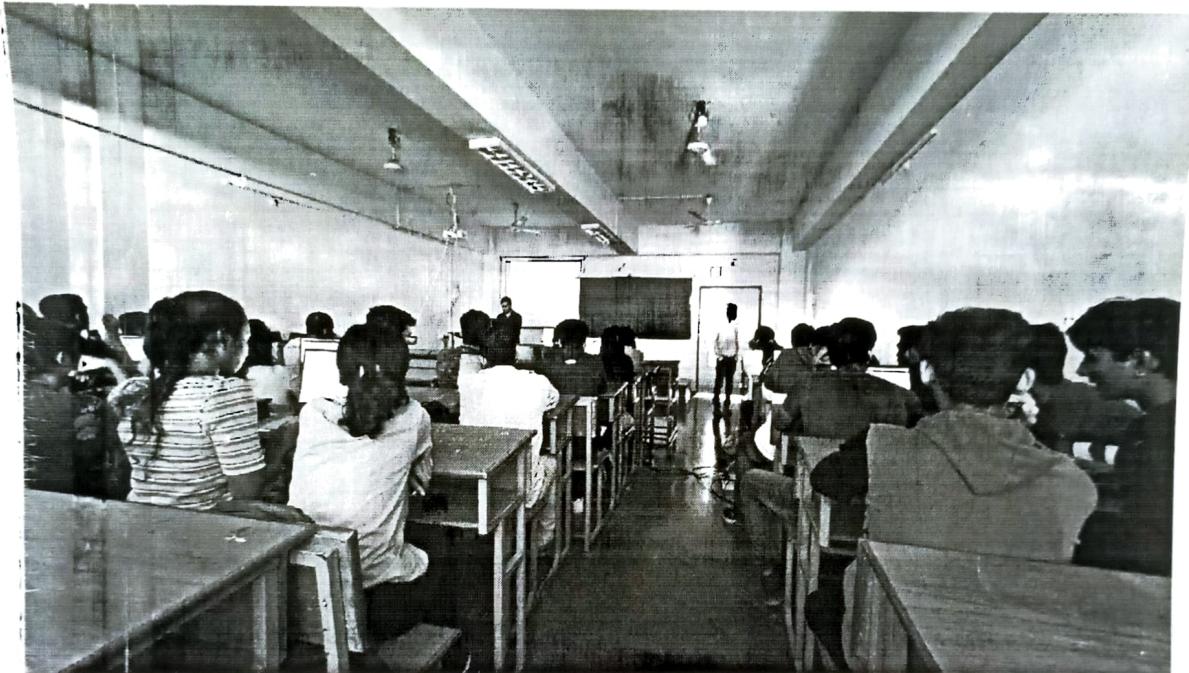
Feedback from students highlighted their satisfaction with the comprehensive workshop, applauding the incorporation of diverse projects that provided a holistic understanding of Arduino applications. The successful execution of the

Traffic Light System and Gas and Flame Detector projects further enhanced the practical learning experience, leaving participants enthused and well-equipped with valuable skills in Arduino programming and project implementation.

In conclusion, the Arduino Workshop conducted by the IETE Committee at Rajiv Gandhi College, featuring Amit Yadav and Aditya Wavale as the speakers, was a resounding success. The event not only equipped participants with practical knowledge of Arduino and Proteus but also fostered a sense of community and collaboration among students.

### **Glimpses of Arduino Workshop**







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### **RGIT IETE STUDENT FORUM**





## Report on

### IETE STUDENT'S DAY

**Date: 2<sup>nd</sup> February, 2024**

The IETE Students' Day was a successful event organized by the IETE Committee. It took place on 2<sup>nd</sup> February 2024 at Lawn Area. The event aimed to provide a platform for students to engage in interactive and gaming activities while fostering a sense of Fellowship among the participants.

The event commenced at 12:30 PM with a ribbon-cutting ceremony conducted by the Head of Department (HOD) and all the teachers of the Electronics and Telecommunication Engineering (EXTC) department. This ceremonial moment symbolized the inauguration of the event and set the stage for the exciting activities to follow.

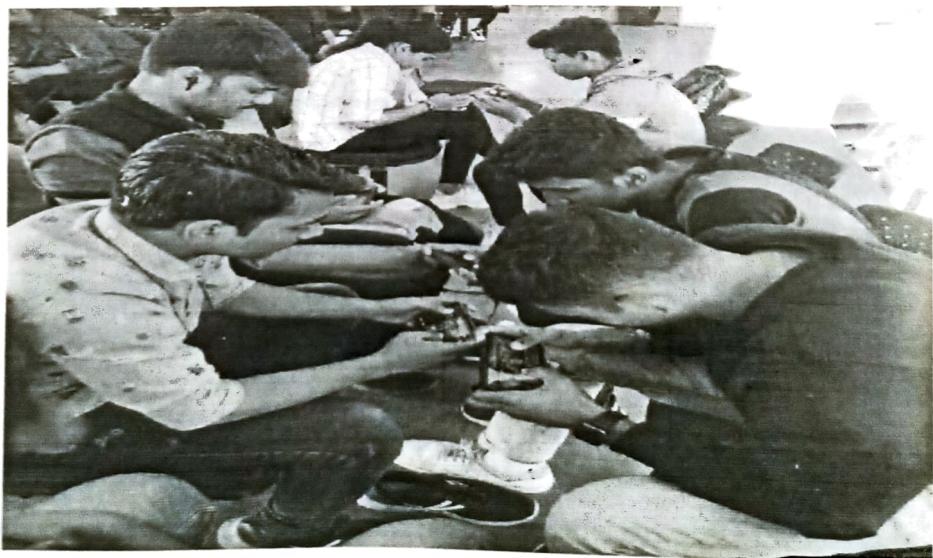
On February 2nd, the RGIT celebrated Students' Day with great enthusiasm and excitement. The event aimed to foster a sense of companionship among the students and provide a break from the routine academic schedule.

To encourage active participation and team building, the IETE Committee organized three interactive games for the students. The games included:

a) Human Ludo: This game involved a life-sized version of the classic board game Ludo, where students became the game pieces. The objective was to strategically move around the board, follow the rules of the game, and reach the center before the opposing team. This game promoted teamwork, strategic thinking, and coordination among the participants.



b) BGMI: In the afternoon, the focus shifted to the virtual world with a Battle Grounds Mobile India (BGMI) Arena. This gaming competition brought together students with a passion for mobile gaming, allowing them to showcase their skills in an esports-like setting. The arena was equipped with gaming stations, and participants engaged in intense battles, displaying strategic gameplay and sportsmanship. The BGMI Arena provided a platform for gaming enthusiasts to connect and share their love for competitive gaming.



c) Treasure Hunt: The treasure hunt was a team-based competition that required participants to solve clues and follow a trail to locate hidden

treasures. The teams worked collaboratively to decipher the clues and navigate through various challenges to reach the ultimate prize. This game fostered problem-solving abilities, teamwork, and a competitive spirit among the participants.



At the conclusion of the treasure hunt, the top three winning teams were announced based on their performance. These teams, which showcased exceptional skills and teamwork, were awarded prizes to acknowledge their achievements. The prizes served as an incentive and recognition for their efforts throughout the competition.

The IETE Students' Day organized by the IETE Committee was a resounding success. The event provided an opportunity for students to engage in interactive games and fostered a sense of camaraderie among the participants. The games, such as Human Ludo, BGMI, and the Treasure Hunt, emphasized teamwork, communication skills, strategic thinking, and problem-solving abilities. Overall, the event not only entertained the participants but also promoted the development of essential skills necessary for their future endeavors in the field of electronics and telecommunication engineering.



## FPGA Workshop

**DATE:** 12th March 2024

**VENUE:** 1<sup>st</sup> Floor, Seminar Hall, RGIT.

The IETE Committee of Rajiv Gandhi Institute of Technology organized an FPGA Workshop on 12<sup>th</sup> March 2024, conducted by Ms. Shaista Khanam and Ms. Trupti Shah offered participants a foundational understanding of FPGA technology. The session covered key concepts such as FPGA architecture, programming languages, and real-world applications.

The event commenced with the introduction of the speaker Ms. Shaista Khanam and Ms. Trupti Shah. The guest speaker was felicitated by the Chairperson of IETE RGIT, Yashesh Vaidya, and welcome to the Institute. The stage was taken over by the speaker to get the session going.

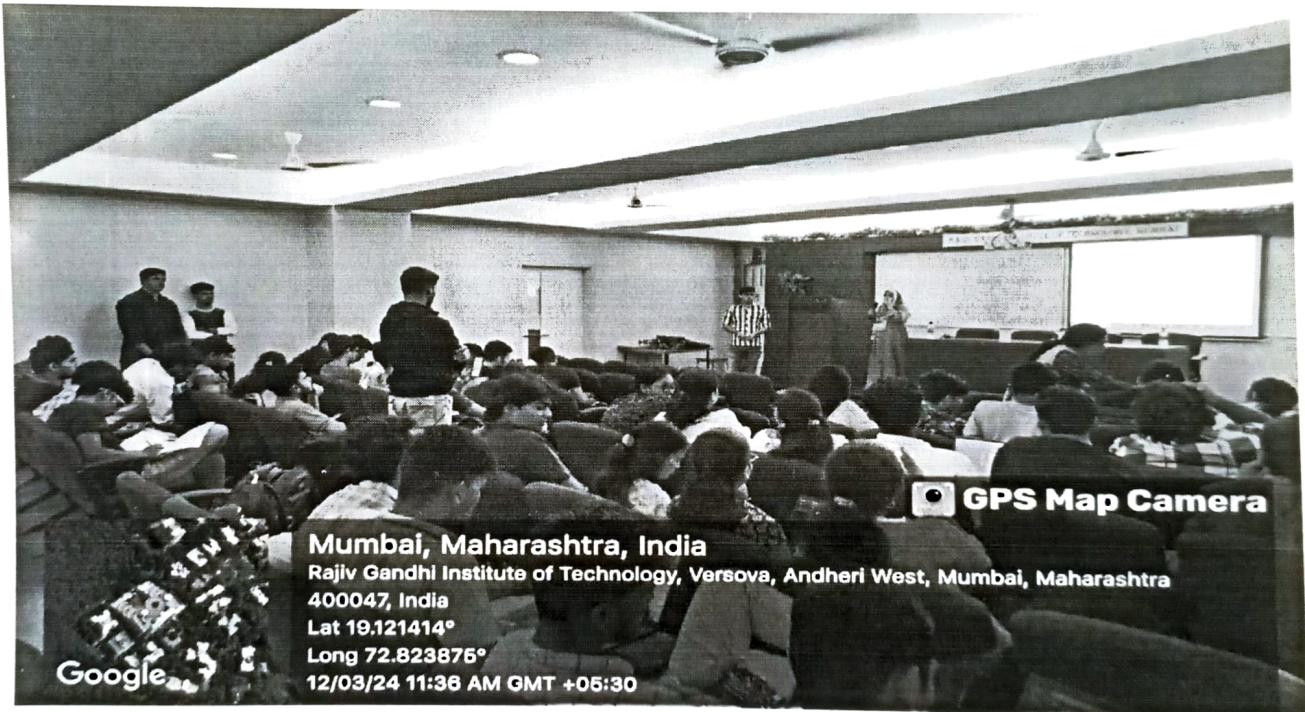
The one-day workshop on Field-Programmable Gate Arrays (FPGAs) provided participants with a foundational understanding of FPGA technology. Through interactive presentations and hands-on exercises, attendees gained insights into the versatility and flexibility of FPGAs in various industries. The workshop fostered an environment for learning and collaboration, allowing participants to exchange ideas and experiences. Overall, the event was a valuable opportunity for individuals to explore the potential of FPGAs and expand their knowledge in the field of digital electronics.

During the workshop, the speakers played a crucial role in assisting students with the installation of Xilinx software for FPGA development. The speakers provided detailed information about the system requirements for installing Xilinx software, ensuring that students had compatible hardware and software configurations. They offered step-by-step instructions on how to download and install the Xilinx software package, guiding students through each stage of the installation process. In case students encountered any issues during the installation, the speakers were available to provide troubleshooting support. They addressed common errors and provided solutions to ensure a smooth installation process. The speakers clarified any technical concepts related to FPGA development and Xilinx software, helping students understand the significance of the tools they were installing.

The speakers guide students through the process of building small projects, such as a 4-bit adder. Before diving into the project, the speakers provided a conceptual understanding of digital logic circuits, including the operation of a 4-bit adder. They explained the theory behind the adder's functionality, including binary addition and carry propagation. The speakers provided step-by-step instructions on how to implement the 4-bit adder circuit within the software environment. They explained the process of designing the circuit layout, specifying input and output ports, and configuring the simulation settings.



The workshop ended at 3:30 with the speakers providing participants with valuable insights into the evolving landscape of digital electronics. Overall, the workshop served as a catalyst for continued learning and exploration in the field of FPGAs, empowering participants to embark on their own journeys of discovery and innovation. With a solid foundation in FPGA technology and a vision for its future applications.





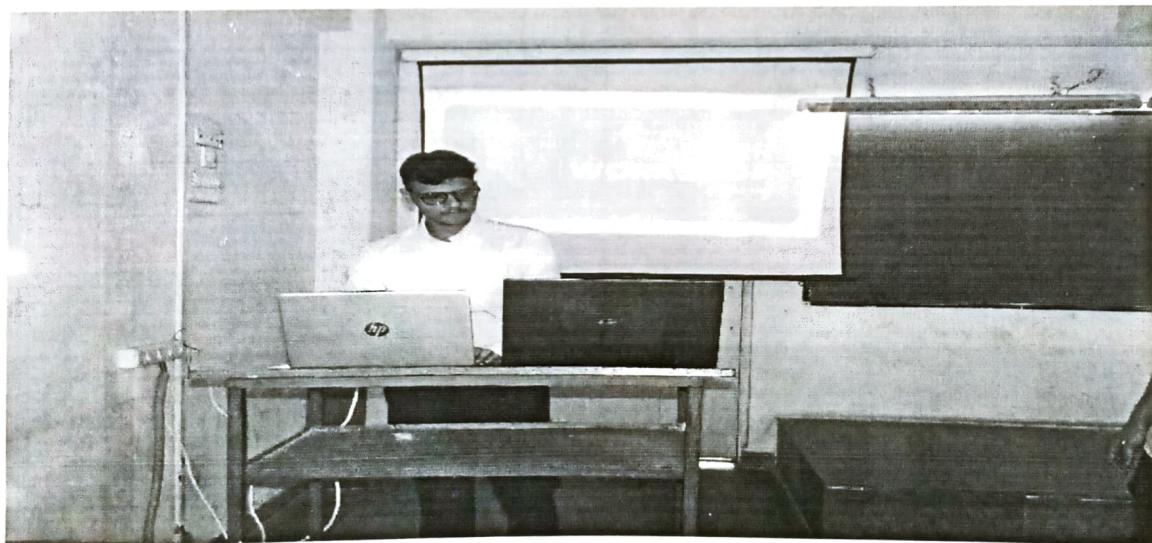
## Flutter Development Workshop

DATE: 13<sup>th</sup> October 2023

VENUE: Classroom B51, RGIT.

The Flutter Workshop organized by the IETE Committee at Rajiv Gandhi College was a highly informative and engaging event aimed at providing participants with practical insights into mobile app development using Flutter. The event took place on 13th October 2023 in Classroom B51 and featured Saksham Awasthi as the guest speaker.

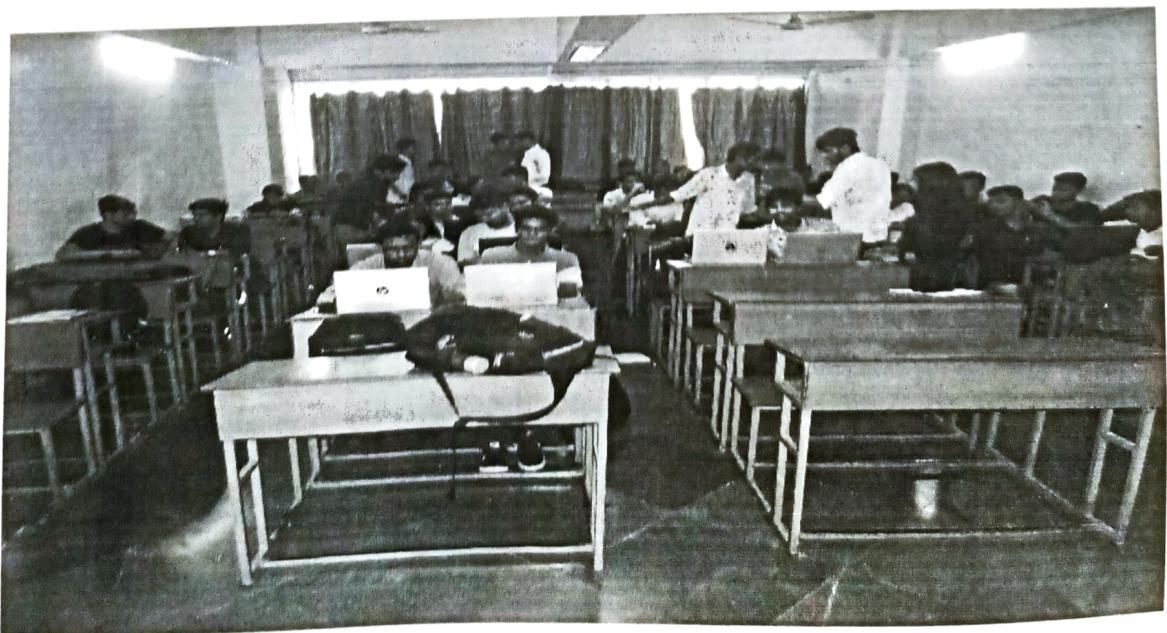
Saksham Awasthi, the esteemed speaker for the workshop, is a recognized expert in the field of mobile app development with a strong background in Flutter. With hands-on experience and a proven track record in creating successful Flutter applications, Saksham brought a wealth of knowledge to share with the participants.



The workshop adopted an interactive approach, allowing participants to follow along with Saksham Awasthi's live demonstrations. This hands-on experience enhanced the learning process and enabled immediate application of concepts. Introduction to Flutter and its advantages. Setting up the development environment. Basics of Dart programming language. Flutter widgets and their usage. State management in Flutter applications. Building a simple Flutter application.



A dedicated question and answer session provided participants with the opportunity to clarify doubts and seek further clarification on various aspects of Flutter development. In conclusion, the Flutter Workshop conducted by the IETE Committee at Rajiv Gandhi College, featuring Saksham Awasthi as the speaker, was a resounding success. The event not only equipped participants with practical knowledge of Flutter but also fostered a sense of community and collaboration among aspiring mobile app developers.





**Mumbai, Maharashtra, India**

Rajiv Gandhi Institute of Technology, Versova, Andheri West, Mumbai, Maharashtra

400047, India

Lat 19.121414°

Long 72.823875°

12/03/24 11:00 AM GMT +05:30

**GPS Map Camera**



**Mumbai, Maharashtra, India**

Rajiv Gandhi Institute of Technology, Versova, Andheri West, Mumbai, Maharashtra

400047, India

Lat 19.121414°

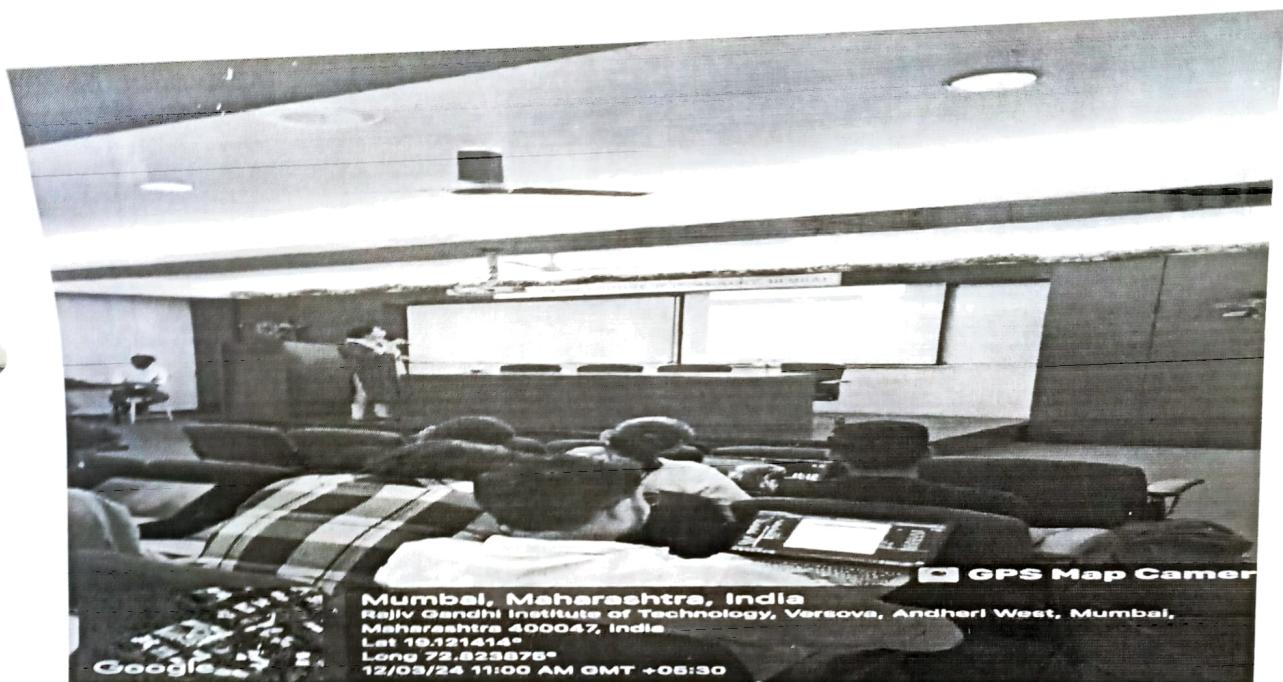
Long 72.823875°

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**GPS Map Camera**



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**MANJAR CHARITABLE TRUST**  
**MGT**  
**RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI**  
(Permanently Affiliated to University of Mumbai)  
**Department of Electronics and Telecommunication Engineering**

Date: -11-03-2024

To,  
The Principal,  
Rajiv Gandhi Institute of Technology,  
Andheri (W), Mumbai-400057.

**Subject:** Organizing workshop on 'FPGA (Field Programmable Gate Array)'

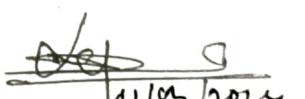
Respected Sir,

Department of Electronics and Telecommunication Engineering and IETE Student's forum have scheduled workshop on 'FPGA (Field Programmable Gate Array)' for benefit of our Third Year students on 12<sup>th</sup> Mar 2024 (Tuesday). Timings for the same are 9 am to 3:30 pm. The resource persons for the workshop are Prof. Shaista Khanam and Prof. Trupti Shah from Vidyavardhini College of Engineering and Technology, Vasai.

We request you to give us permission for the workshop and kindly grant Honorarium for expert.

Thanking You.

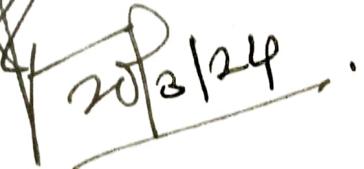
  
Prof. Surendra T. Sutar  
Coordinator

  
11/03/2024  
Dr. S. D. Deshmukh  
HOD (EXTC)

**Enclosure:**

Topics to be covered during workshop

~~All~~  
Only pay online  
only Rs. 2500/-  
per speaker

  
HOD (EXTC)  
- Permitted  
- You recommend  
the honorarium and



MANJARA MGT  
RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI

(Permanently Affiliated to University of Mumbai)  
Department of Electronics and Telecommunication Engineering



**H.O.D of EXTC department:**

Dr. Sanjay D. Deshmukh

DATE: 04/02/2024

**Faculty Co-Ordinator**

Prof. Surendra T. Sutar

To,  
Dr. Sanjay U. Bokade,  
The principal,  
Rajiv Gandhi Institute of  
Technology, Andheri (West).

**Chairperson:**

Yashesh Vaidya

**General Secretary:**

Vishal Solanki

**Vice-Chairperson:**

Amit Yadav

**Joint General Secretary:**

Ashlesha Yadate

Yash Vardhan

**Treasurer:**

Tushar Pawar

**Subject: Permission to use Seminar hall for FPGA Workshop.**

**Respected Sir,**

We are the IETE RGIT committee of EXTC Department and we are writing this letter to inform you about our event on FPGA Workshop which we are conducting on 12th March, 2024. The FPGA is semiconductor devices that are based around a matrix of configurable logic blocks (CLBs) connected via programmable interconnects. It is used by third year students for their respective projects. In this workshop they will get introduction to FPGA board and also guide to use it. The speaker for the event is Shaista Khan.

We kindly request permission use seminar hall, mike and all the accessories of the seminar hall for FPGA Workshop on 12<sup>th</sup> March from 9am to 4pm.

We are awaiting a considerate response in regards to the above-mentioned purpose.

Thanking you in anticipation.

Yours sincerely,

IETE RGIT

Yashesh Vaidya  
Chairperson IETE RGIT

Prof. Viplov Solanki  
Faculty co-convenor  
Faculty co-convenor

## Topics to be covered during FPGA workshop

- 1 Introduction to Verilog: Dive into the world of Verilog and discover its role in FPGA programming.
- 2 Mastering Basic Code: Unlock the power of FPGA with hands-on exercises covering essential coding techniques.
- 3 Procedural Guidance for Boards: Learn the step-by-step procedures to navigate FPGA boards with ease and confidence.
- 4 Fun with Switches, LEDs, and 7-Segments: Get creative as we delve into the practical applications of switches, LEDs, and 7-segment displays on FPGA boards.

Hemang R Jain	TE - A - 618	HRS
2) Suchi Agrawal	TE - A - 601	Suchi
3) Harshada Patil	TE - A - 640	Electrical Student
4) Srishti Nayal	TE - A - 637	
5) Ayush Samant	TE - A - 654	Electrical Student
6) Parin Khatari	TE - A - 627	
7) Vallabh Panigrahi	TE - A - 638	Panigrahi
8) Vaidehi Pawar	TE - A - 644	Pawar
9) Prathamesh Kothari	TE - A - 623	PK
10) Atharva Joshi	TE - A - 621	Atharva
11) Yash Kadam	TE - A - 622	Yash
12) Sairay Mahadik	TE - A - 631	Mahadik
13) Someet Maheshwar	TE - A - 632	Someet
14) Vedant Kini	TE - A - 628	Vedant
15) Shikam Yadav	TE - A - 662	Shikam
16) Asjad Tanweer	TE - A - 635	Asjad
17) Ayush Changaa	TE - A - 604	Ayush
18) Avinash Gupta	TE - A - 613	
19) Mandar Mate	TE - A - 634	Mandar
20) Animesh Bhagat	TE - A - 602	Animesh
21) Rahul Yogawale	TE - A - 612	Rahul
22) Samudhi Katke	TE - A - 626	Samudhi
23) Saoniya Wankhede	TE - A - 659	Saoniya
24) Ashutosh Somkuwar	TE - A - 655	Ashutosh
25) Aditya D. Patil	TE - A - 639	Aditya
26) Nikhil Gavas	TE - A - 610	Nikhil
27) Jaykumar Jain	TE - A - 619	Jay
28) Prasanna Ghelop	TE - A - 611	Prasanna
29) Nitisha Jadhav	TE - A - 663	Nitisha
30) Anas Shaikh	TE - A - 649	Anas



## Report on “Industrial Visit to BSNL Satellite Earth Station”.

**Topic:** Industrial Visit to BSNL Satellite Earth Station.

**Date & Time:** 20 March, 2024. 10:00 a.m. – 04:00 p.m.

21 March, 2024. 10:00 a.m. – 04:00 p.m.

**Venue:** Satellite Earth Station, Yeur, Thane (W)

### **Description:**

On the 20<sup>th</sup> & 21<sup>st</sup> of March 2024, Students and faculty members of RGIT had the privilege of visiting the Bharat Sanchar Nigam Limited (BSNL) Satellite Earth Station located in Yeur, Thane (West). The visit aimed to provide us Students with a practical understanding of satellite communication technology and its applications in telecommunication. The Industrial Visit began with a short Introduction by Mr. Tiwari. He introduced us to the need for satellite communication and the basics of Satellite Communications. The frequency bands for satellite communication such as S-band, C-band having a limit of 4 to 8 GHz, Upper Extended C band, Ku band, etc. their properties and Applications. We learned about the two mainly used antennas namely Cesarean and Gregorian Antennas.

About the Different Earth orbits:

1. Low Earth Orbit (LEO) is an Earth-centered orbit which is about 2000 km or less.
2. Medium Earth Orbit (MEO) is away from Earth about 2000-36000 KMs.
3. Geostationary earth orbits are at a height of 35,678 KMs

The difference between geostationary and geosynchronous satellites is that geosynchronous satellites are placed on an angular plane.

Types of Signals GSM,2G,3G,4G,5G.

The NavIC (Navigation with Indian Constellation) is an Indian Regional Satellite Navigation System developed by ISRO that provides positioning, navigation, and Timing services.

We also learned that theoretically to cover the Entire Earth we need about 3 Satellite over Earth.

We were also introduced to Different Satellites such as GSAT-16 located at an orbital position of 55° East and GSAT-18 Satellites located at 74° East which supports India's Telecommunication, television, VSAT (Very Small Aperture Terminal), and civil services. Another satellite is known as IP-Star 1 which is the world's first high-throughput satellite (HTS) and is located at the orbital position of 119.5° East which provides the telecom industry, businesses, and government administrations in Asia-Pacific which is a cost-effective satellite and also services.

We were taught about the Basic block diagram of a Satellite which included, Modem, Source Encoder, Channel Encoder, HPA (High Power Amplifiers), all these at the Transmitting Side LNA (low noise amplifier), and a divider at the Receiver side. We were taught about an important aspect of satellite communication which is the transponder.

A satellite transponder is a device on a satellite that acts as both a transmitter and receiver, automatically transmitting signals when it receives predetermined signals. We were then shown a feeder and were told about its functions, losses, etc., and how the transmitted and the received signals are separated by OMT (Optical Mode Transmission) with a guard band frequency of 4 GHz. We were divided into 2 Groups to observe the C-band antenna and different small Antennas. The C-band antenna had a diameter of 10-11 meters and the IP-star antenna had a diameter of 8 to 8.5 meters. We learned various aspects of antennas and their different use in specific areas and conditions.

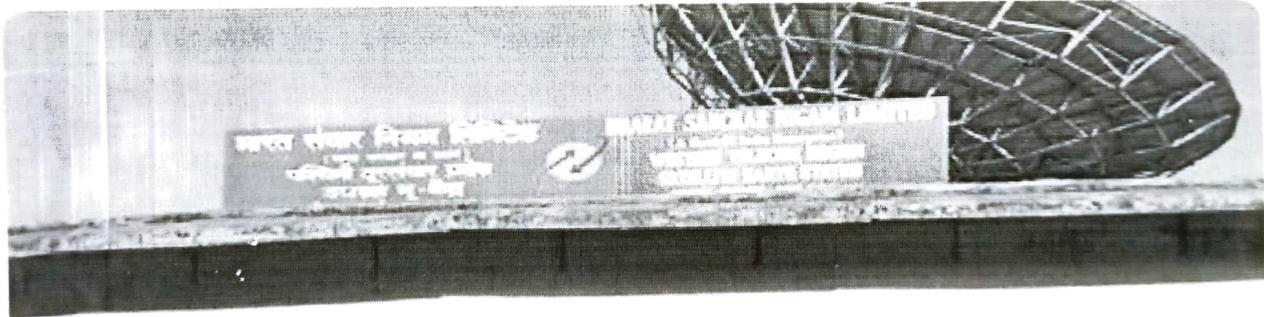


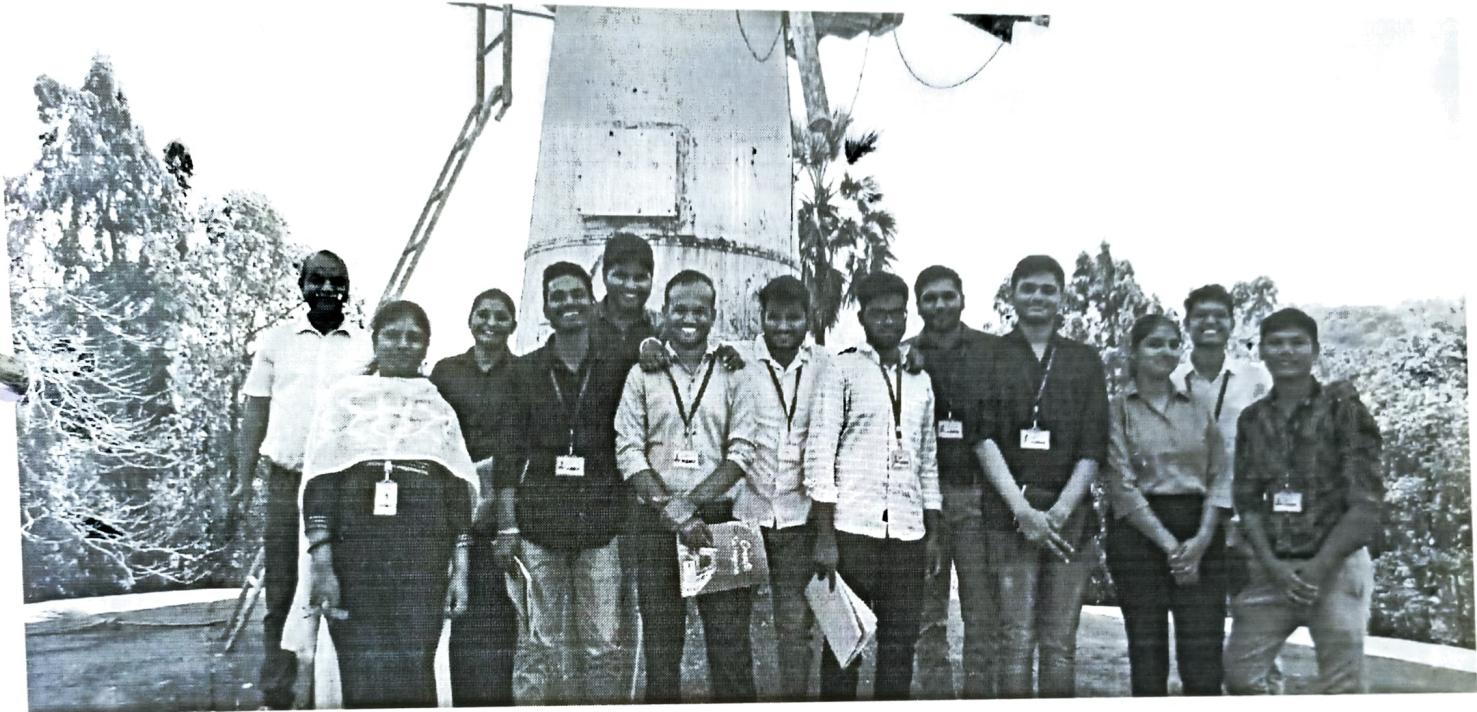
We learned about the working and Precautions taken during different seasons for example while raining there is a rain sensor that detects rain and turns the drier on, but this is not very useful on heavy rainy Days. We also learned about the Rotation of the antenna for Appropriate Results. In order to prevent the total breakdown of the network under extreme conditions of rain, another satellite earth station is set up in Pune, and in case of failure in communication in Mumbai, the entire data is sent via an optic fiber link.

We saw how the data is received and processed from the antenna and how they are stored in different layers in Servers. The Server rooms were well-ventilated so as not getting overheat. We also saw various other antennae placed at their base Station.

Our Industrial Visit ended as we summarized and thanked the staff followed by thanking speech by Prof Shripad Kulkarni sir on the valuable insights provided by the officers and Staff and Sharing other aspects about Internships and working in the field of Satellites.

#### **Event Photographs:**







### Conclusion:-

Our visit to the BSNL Earth Satellite Station was an informative and educational experience. We gained insights into the functioning of satellite communication, the operation of satellite receivers, and the significance of different equipment used in the server room. We also learned about the importance of satellites in modern communication and their widespread applications in various industries. We are grateful to the officers and engineers at the station for their valuable insights and for providing us with a comprehensive understanding of satellite communication technology. Overall, the industrial visit was a great learning opportunity and we left with a deeper appreciation for the advancements in satellite communication.



## **INDUSTRIAL VISIT TO BSNL EARTH STATION**

**TOPIC:-** Industrial visit to BSNL Earth Station

**DATE&TIME:-** 18<sup>th</sup> March 2024, 10 a.m To 3 p.m.

19<sup>th</sup> March 2024, 10 a.m. To 3 p.m.

**VENUE:** Satellite Earth Station, Yeur, Thane(W).

### **DESCRIPTION:-**

On the 18th and 19th of March 2024, Students and faculty members of RGIT had the privilege of visiting the Bharat Sanchar Nigam Limited (BSNL) Satellite Earth Station located in Yeur, Thane (West). The industrial visit to Bharat Sanchar Nigam Limited (BSNL) provided an invaluable opportunity to gain hands-on experience and practical insight into the field of optical communication. During the visit, we had the privilege of observing and understanding the various aspects of optical communication, including fiber optic cables, transmission systems, and network operations at BSNL. We also learned about the fabrication techniques involved in optical fiber assemblies. These techniques include methods such as fusion splicing, connectorization, and cleaving. We witnessed the extensive network infrastructure of BSNL that supports its optical communication services. We observed the installation and maintenance of fiber optic cables, which are essential for high-speed data transmission. Additionally, we had the opportunity to interact with BSNL engineers and technicians who shared their expertise and demonstrated the techniques involved in optical communication.

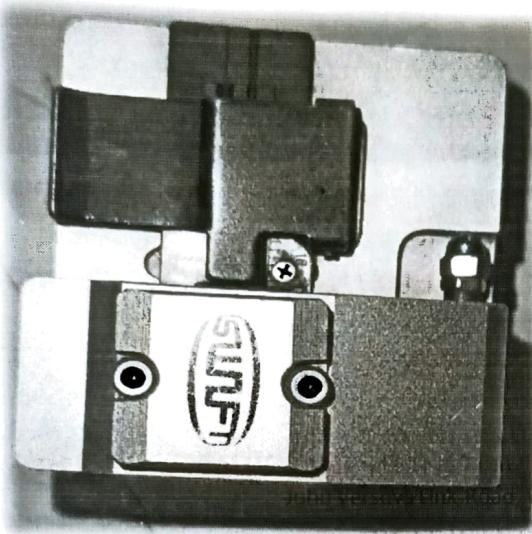
The list of things we were briefed about were Fiber Splicing, OTDR (Optical Time Domain Reflectometer) troubleshooting, WDM and DWDM Technologies, and SONET Networking.

#### **1. Fiber Splicing:**

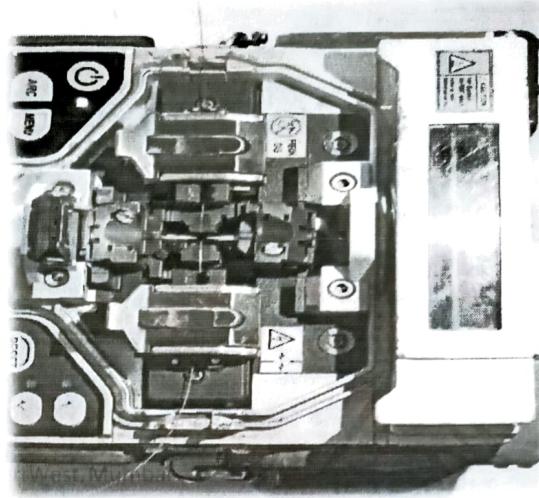
Fiber splicing is a technique used in telecommunications and networking to join two optical fibers together. It's a crucial process for extending or repairing fiber optic cables without significant loss of signal strength. There are two types of fiber splicing techniques fusion splicing and mechanical splicing. Fusion splicing involves melting or fusing the ends of two optical fibers using an electric arc. This method results in a permanent, low-loss connection between the fibers. Mechanical splicing utilizes specialized connectors to join two fibers together without fusion. It relies on precise alignment and mechanical components to hold the fibers in place.



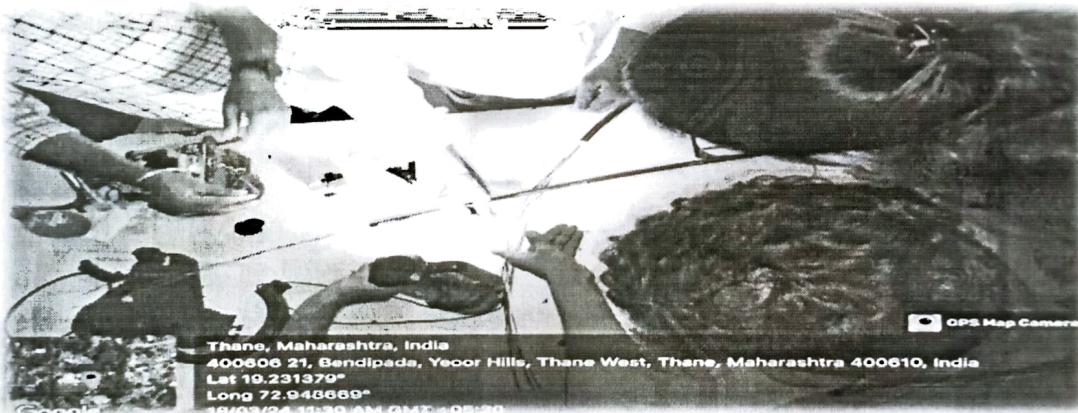
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CLEAVER



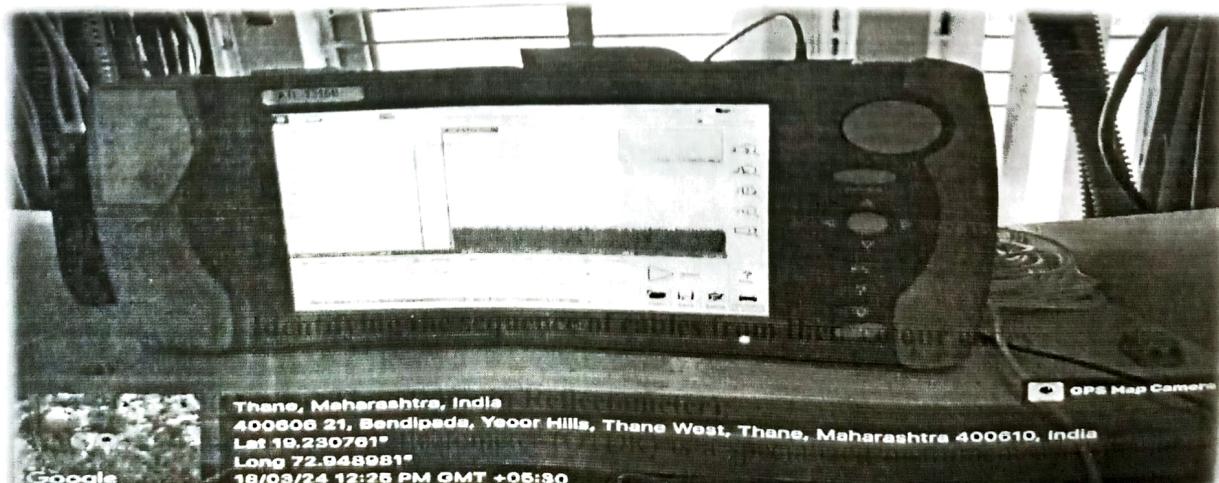
FUSION SPLICING



Identifying the sequence of cables from their colour codes

**2. OTDR (Optical Time Domain Reflectometer):**

An Optical Time Domain Reflectometer (OTDR) is a specialized instrument used in fiber optic networks to analyze the performance and characteristics of optical fibers. It works by sending short pulses of light into the fiber and measuring the reflections and backscattering caused by





**RGIT IETE STUDENT FORUM**  
discontinuities, splices, connectors, and bends along the length of the fiber.

### **3. WDM and DWDM Technologies:**

BSNL experts provided a comprehensive overview of WDM and DWDM technologies, emphasizing their importance in increasing network capacity and efficiency. Wavelength Division Multiplexing (WDM) is a technology used in fiber-optic communications to combine multiple optical signals onto a single fiber by using different wavelengths (colors) of light to carry different signals.

### **4. SONET (Synchronous Optical Network):**

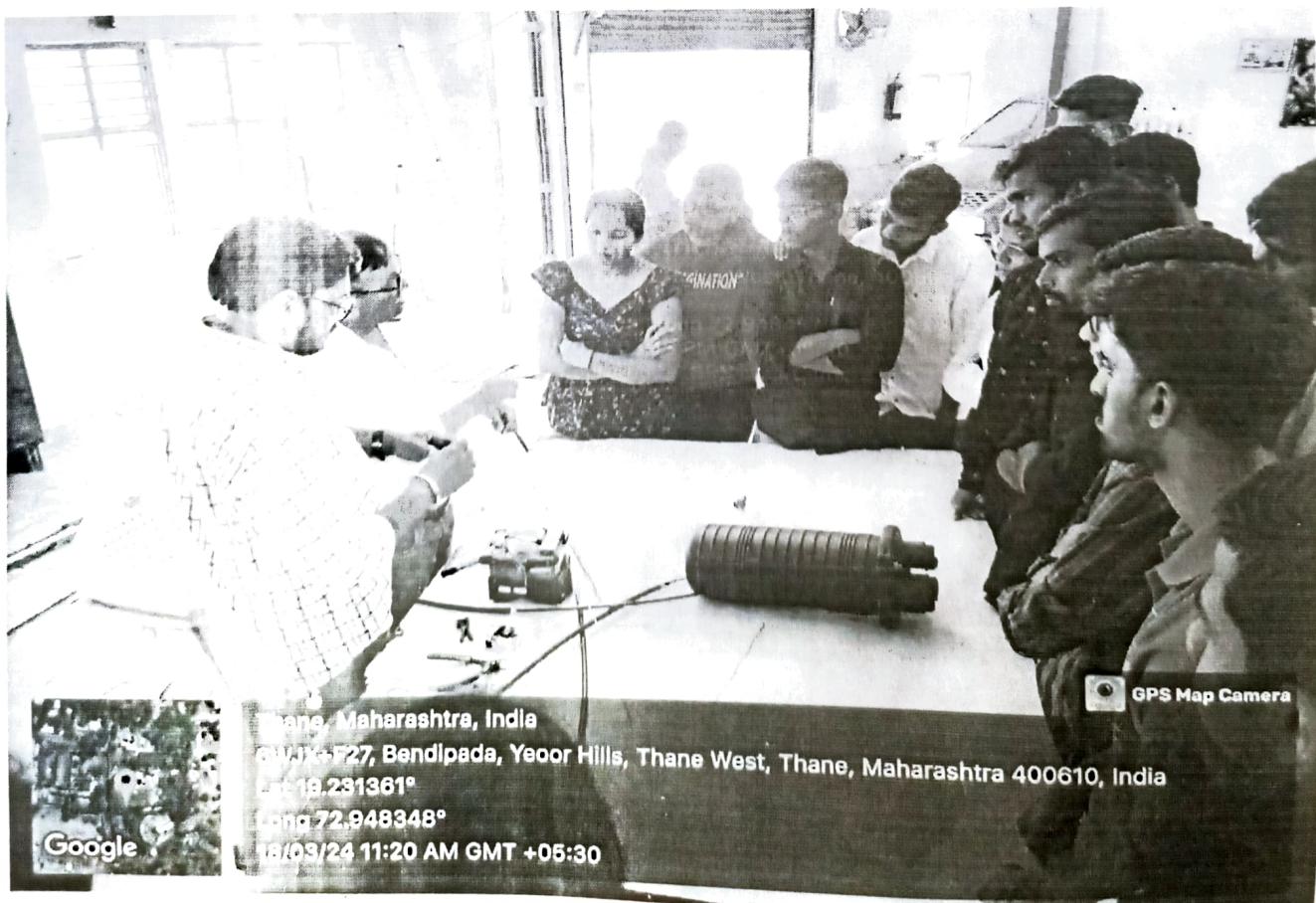
SONET (Synchronous Optical Network) is a standardized multiplexing protocol used in telecommunications networks to transmit large volumes of data over optical fiber. It was developed to address the need for a reliable, high-speed, and scalable transmission system for voice, data, and video traffic. BSNL experts provided an overview of SONET technology, emphasizing its importance in facilitating high-speed, synchronous transmission of data over optical fiber networks. The visit included a tour of BSNL's SONET equipment, where we had the opportunity to observe the various components and functionalities of SONET systems. BSNL engineers demonstrated the setup, configuration, and operation of SONET equipment, highlighting its role in network transmission and management. They also provided practical demonstrations of SONET network provisioning, fault detection, and performance monitoring techniques.

### **Conclusion:**

Our industrial visit to BSNL (Bharat Sanchar Nigam Limited) proved to be an invaluable learning experience, providing us with comprehensive insights into a spectrum of cutting-edge telecommunications technologies. From our exploration of fiber splicing, we gained practical understanding and hands-on experience in joining optical fibers, a critical skill for extending and maintaining fiber optic networks with minimal signal loss. Our immersion into OTDR technology elucidated the vital role of this diagnostic tool in characterizing and analyzing optical fibers. Through interactive sessions and practical demonstrations, we learned to interpret OTDR traces, identify network anomalies, and assess signal integrity, essential for troubleshooting and optimizing fiber optic infrastructure. The WDM and DWDM technologies illuminated the path to efficient utilization of optical fiber resources. We grasped the principles of wavelength multiplexing and the scalability afforded by DWDM systems, empowering us with insights into the design and deployment of high-capacity telecommunications networks capable of meeting the escalating demands of modern connectivity. Finally, understanding the SONET technology we learned the significance of synchronous optical networking in ensuring robust, high-speed data transmission across vast distances. The seamless integration of SONET into telecommunications infrastructure emerged as a cornerstone of network reliability, offering automatic protection switching and error correction mechanisms vital for maintaining service continuity and data integrity.



RGIT IETE STUDENT FORUM

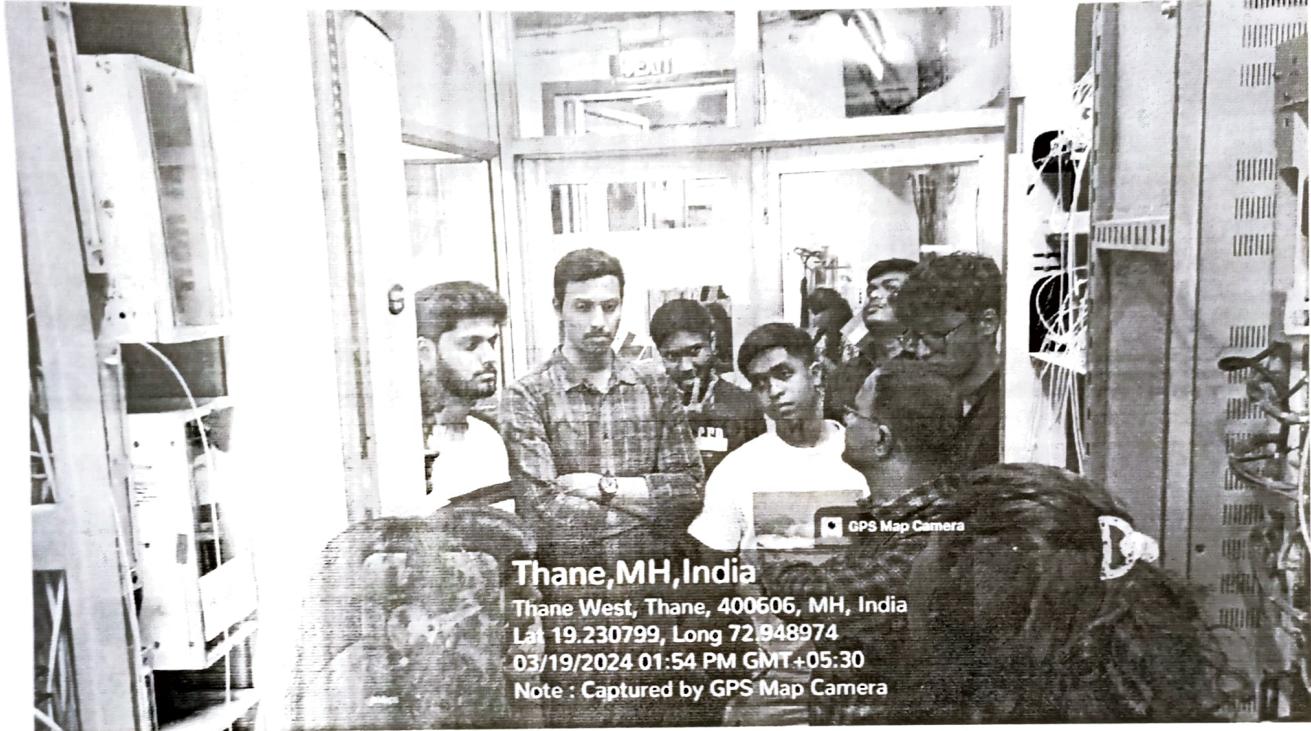




**MGT**  
MANJARA CHARITABLE TRUST  
RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI  
Juhu Versova Link Road, Versova, Andheri West, Mumbai



### RGIT IETE STUDENT FORUM



**Thane, MH, India**

Thane West, Thane, 400606, MH, India

Lat 19.230799, Long 72.948974

03/19/2024 01:54 PM GMT+05:30

Note : Captured by GPS Map Camera

**IETE Activities  
2023-2024  
(Odd Semester)**

Sr. No.	Gap	Action Taken	dd/mm/yyyy	Resource Person with Designation	No. of Students Attended	Relevance to POs, PSOs
1	Usage of modern tools, Project Management	Two-Day LaTeX on Resume Building	4 <sup>th</sup> , 7 <sup>th</sup> August, 2023	Mrs Apurva Dhotre	100	PO8, PO9, PO10, PO11, PO12
2	Scope related to Electronics & Telecommunication industry	Know Your Department: FE Induction	10 <sup>th</sup> August, 2023	Dr. S.D. Deshmukh (HOD EXTC Department)	120	PO12, PS01, PS02
3	Recent Trends in Cyber Security	two Day Seminar on Cyber Security	8 <sup>th</sup> , 9 <sup>th</sup> September, 2023	Mr Sachin Dhedia (Founder and CEO of Skynet Secure solutions)	30	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO12, PS01,
4	Recent happenings in App Development	One-Day Hands on Training on Flutter	13 <sup>th</sup> October, 2023	Mr Saksham Avasthi (Active Flutter Developer with experience of 3 years)	50	PO1, PO2, PO3, PO5, PO6, PO11, PO12, PS01, PS02
5	Knowledge on Circuit and PCB designing	Two-Day Seminar on PCB Designing	14 <sup>th</sup> , 15 <sup>th</sup> October, 2023	Mr Amit Yadav (Vice-Chairperson of IETE RGIT) and Mr Aditya Wavale (President of AERO RGIT)	40	PO1, PO2, PO3, PO5, PO6, PO9, PO11, PO12, PS01, PS02
6	Usage of modern tools Project Management	Digital Forensic	30 <sup>th</sup> January, 2024	Siddharth Ghogari (co-founder of CyberMars Forensics Pvt Ltd).	50	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO9 PO12 PS01 PS02
7	Practical knowledge of microcontrollers	Arduino Workshop	31 <sup>st</sup> January, 1 <sup>st</sup> February 2024	Mr Amit Yadav (Vice-Chairperson of IETE RGIT) and Mr Aditya Wavale (President of AERO RGIT)	45	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO9 PO12 PS01 PS02
8	Industry exposure	Industrial Visit		BSNL Earth Station	150	PO8 PO9 PO10 PO11 PO12
9	Knowledge of FPGA systems	FPGA Workshop	12 <sup>th</sup> March 2024	Ms. Shaista Khanam and Ms. Trupti Shah.	40	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO9 PO12 PS01 PS02

### LaTeX Workshop

Questions	Exceedingly Well (3)	Moderate (2)	Good (1)	Level
How do you rate the usefulness of this seminar on a career front?	70	20	10	2.6
Was this Seminar able to solve your doubts effectively?	80	15	5	2.8
How well did you understand the importance of LaTeX based report?	80	15	5	2.8
How much was the speaker's experience and teaching helpful to you?	75	12	13	2.6
How well will you be able to write report using LaTeX software?	70	20	10	2.6

Questions	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
How do you rate the usefulness of this seminar on a career front?	-	-	-	-	-	-	-	-	2.6	-	-	2.6
Was this Seminar able to solve your doubts effectively?	-	-	-	-	-	-	-	-	-	2.8	-	2.8
How well did you understand the importance of LaTeX based report?	-	-	-	-	-	-	-	2.8	2.8	-	-	2.8
How much was the speaker's experience and teaching helpful to you?	-	-	-	-	-	-	-	-	-	2.6	-	2.6
How well will you be able to write report using LaTeX software?	-	-	-	-	-	-	-	-	-	2.6	-	-
Average	-	-	-	-	-	-	-	2.8	2.7	2.7	-	2.7

### Workshop on Cyber Security

Questions	Exceedingly Well (3)	Moderate (2)	Good (1)	Level
How do you rate the usefulness of this workshop on a career front?	20	5	5	2.5
Was this workshop able to solve your doubts effectively?	22	4	4	2.6
How much was the speaker's experience and teaching helpful to you?	22	3	5	2.6
How would you rate the readiness of the speaker during the session?	20	3	7	2.4

Questions	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1
How do you rate the usefulness of this workshop on a career front?	2.5	2.5	2.5	2.5	2.5	2.5	2.5	-	2.5	-	-	2.5	2.5
Was this workshop able to solve your doubts effectively?	2.6	2.6	-	2.6	2.6	2.6	-	-	-	-	-	2.6	-
How much was the speaker's experience and teaching helpful to you?	2.6	2.6	-	2.6	2.6	2.6	2.6	-	2.6	-	-	2.6	-
How would you rate the readiness of the speaker during the session?	-	-	-	2.4	-	2.4	-	-	-	-	-	2.4	-
Average	2.6	2.6	2.5	2.5	2.6	2.5	2.6	-	2.6	-	-	2.5	2.5

Flutter Workshop

Questions	Exceedingly Well (3)	Moderate (2)	Good (1)	Level
How do you rate the usefulness of this seminar on a career front?	35	10	5	2.9
Was this seminar able to solve your doubts effectively?	40	5	5	2.8
How much was the speaker's experience and teaching helpful to you?	45	3	2	2.9
How would you be able to explain building of front-end of any web page after this event?	45	2	3	2.7

Questions	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
How do you rate the usefulness of this seminar on a career front?	-	-	2.9	-	2.9	2.9	-	-	-	-	2.9	-
Was this Seminar able to solve your doubts effectively?	-	2.8	2.8	-	-	2.9	-	-	-	-	2.8	-
How much was the speaker's experience and teaching helpful to you?	-	2.9	-	2.9	-	-	-	2.9	-	-	-	-
How would you be able to explain building of front-end of any web page after this event?	-	-	2.7	2.7	2.7	2.7	-	-	-	-	-	2.7
Average	-	2.9	2.8	2.8	2.8	2.8	-	2.9	-	-	2.9	2.7

**PCB Designing**

Questions	Exceedingly Well (3)	Moderate (2)	Good (1)	Level
How do you rate the usefulness of this workshop on a career front?	44	5	1	2.9
How well you understood the proteus software learning session?	45	3	2	2.9
Did you understand basic steps of PCB designing?	45	3	2	2.9
Will you be able to demonstrate the process on software?	50	0	0	3

Questions	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
How do you rate the usefulness of this workshop on a career front?	2.9	2.9	2.9	-	2.9	2.9	-	-	-	-	2.9	2.9	2.9	2.9
How well you understood the proteus software learning session?	2.9	-	2.9	-	2.9	-	-	-	2.9	-	2.9	-	2.9	2.9
Did you understand basic steps of PCB designing?	2.9	2.9	2.9	-	2.9	-	-	-	2.9	-	-	2.9	2.9	2.9
Will you be able to demonstrate the process on software?	3	-	3	-	3	-	-	-	3	-	3	-	3	3
Average	2.9	2.9	2.9	-	2.9	2.9	-	-	2.9	-	2.9	2.9	2.9	2.9

### Digital Forensic

Questions	Exceedingly Well (3)	Moderate (2)	Good (1)	Level
How do you rate the usefulness of this seminar on a career front?	20	20	10	2.2
Was this Seminar able to solve your doubts effectively?	25	15	10	2.3
How well did you understand the importance of digital forensics?	30	10	10	2.4
How much was the speaker's experience and teaching helpful to you?	25	15	10	2.3
How well will you be able to apply digital forensics knowledge?	20	20	10	2.2

Questions	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
How do you rate the usefulness of this seminar on a career front?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	2.2	2.2	2.2
Was this Seminar able to solve your doubts effectively?	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-	2.3	-	-	2.3	2.3	2.3
How well did you understand the importance of digital forensics?	2.4	2.4	2.4	2.4	2.4	2.4	2.4	-	2.4	-	-	2.4	2.4	2.4
How much was the speaker's experience and teaching helpful to you?	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-	2.3	-	-	2.3	2.3	2.3
How well will you be able to apply digital forensics knowledge?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	2.2	2.2	2.2
Average	2.28	2.28	2.28	2.28	2.28	2.28	2.28	-	2.28	-	-	2.28	2.28	2.28

### Arduino Workshop

Questions	Exceedingly Well (3)	Moderate (2)	Good (1)	Level
How do you rate the usefulness of this workshop on a career front?	20	15	10	2.2
Was this Workshop able to solve your doubts effectively?	20	15	10	2.2
How well did you understand the basics of Arduino programming?	25	10	10	2.3
How much was the speaker's experience and teaching helpful to you?	20	15	10	2.2
How well will you be able to create projects using Arduino?	20	15	10	2.2

Questions	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
How do you rate the usefulness of this workshop on a career front?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	-	2.2	2.2
Was this Workshop able to solve your doubts effectively?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	-	2.2	2.2
How well did you understand the basics of Arduino programming?	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-	2.3	-	-	-	2.3	2.3
How much was the speaker's experience and teaching helpful to you?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	-	2.2	2.2
How well will you be able to create projects using Arduino?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	-	2.2	2.2
Average	2.22	2.22	2.22	2.22	2.22	2.22	2.22	-	2.22	-	-	-	2.22	2.22

### FPGA Workshop

Questions	Exceedingly Well (3)	Moderate (2)	Good (1)	Level
How do you rate the usefulness of this workshop on a career front?	20	15	10	2.2
Was this Workshop able to solve your doubts effectively?	20	15	10	2.2
How well did you understand the basics of FPGA programming?	25	10	10	2.3
How much was the speaker's experience and teaching helpful to you?	20	15	10	2.2
How well will you be able to create projects using FPGA?	20	15	10	2.2

Questions	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
How do you rate the usefulness of this workshop on a career front?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	2.2	2.2	2.2
Was this Workshop able to solve your doubts effectively?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	2.2	2.2	2.2
How well did you understand the basics of FPGA programming?	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-	2.3	-	-	2.3	2.3	2.3
How much was the speaker's experience and teaching helpful to you?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	2.2	2.2	2.2
How well will you be able to create projects using FPGA?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	-	-	2.2	2.2	2.2
Average	2.22	2.22	2.22	2.22	2.22	2.22	2.22	-	2.22	-	-	2.22	2.22	2.22

### Industrial Visit

Questions	Exceedingly Well (3)	Moderate (2)	Good (1)	Level
How do you rate the usefulness of this industrial visit on a career front?	60	60	30	2.2
Was this Visit able to meet your expectations?	75	50	25	2.3
How well did you understand the industrial processes shown?	70	50	30	2.3
How much was the experience and guidance provided during the visit?	80	50	20	2.4
How well will this visit impact your future career choices?	65	60	25	2.3

Questions	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
How do you rate the usefulness of this industrial visit on a career front?	2.2	2.2	2.2	2.2	2.2	2.2	2.2	-	2.2	2.2	2.2	2.2	2.2	2.2
Was this Visit able to meet your expectations?	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-	2.3	2.3	2.3	2.3	2.3	2.3
How well did you understand the industrial processes shown?	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-	2.3	2.3	2.3	2.3	2.3	2.3
How much was the experience and guidance provided during the visit?	2.4	2.4	2.4	2.4	2.4	2.4	2.4	-	2.4	2.4	2.4	2.4	2.4	2.4
How well will this visit impact your future career choices?	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-	2.3	2.3	2.3	2.3	2.3	2.3
Average	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-	2.3	2.3	2.3	2.3	2.3	2.3

Events	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
LaTeX workshop	-	-	-	-	-	-	-	2.8	2.7	2.7	-	2.7	-	-
Cyber Security workshop	2.6	2.6	2.5	2.5	2.6	2.5	2.6	-	2.6	-	-	2.5	2.5	-
Flutter development	-	2.9	2.8	2.8	2.8	2.8	-	2.9	-	-	2.9	2.7	-	-
PCB Designing	2.9	2.9	2.9	-	2.9	2.9	-	-	2.9	-	2.9	2.9	2.9	2.9
Digital Forensic	2.28	2.28	2.28	2.28	2.28	2.28	2.28	-	2.28	-	-	2.28	2.28	2.28
Arduino Workshop	2.22	2.22	2.22	2.22	2.22	2.22	2.22	-	2.22	-	-	2.22	2.22	2.22
FPGA Workshop	2.22	2.22	2.22	2.22	2.22	2.22	2.22	-	2.22	-	-	2.22	2.22	2.22
Industrial Visit	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-	2.3	2.3	2.3	2.3	2.3	2.3
Average	2.36	2.36	2.36	2.05	2.33	2.33	2.22	2.85	2.46	3.65	2.50	2.30	2.60	2.43