Additional Information for QlM 2.3.1- Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences

Sample evidence for following methodologies-

Experiential learning -Sample documents for

   a. Lab Experiments
   b. Hands-on Workshops
   c. Virtual Field trips, Virtual labs
   d. Internships
2. **Individual learning** – Sample documents for
   a. Value-added Assignments
   b. Online courses
   c. Poster presentation
3. **Participative/collaborative learning –** Sample documents for
   a. Student Seminars
   b. Webinars
   c. V-Talks Webinars
   d. Mini Projects
   e. Flipped Classroom
   f. Various Competitions
   g. Committee activities
   h. Gaming Activities – Kahoot, Quizlet etc.
4. **Problem based learning –** Sample documents for
   a. PBL Experiments
   b. Case Studies
   c. Technical paper review
   d. Scholarly Term Paper

CCN Practical Statements-

1) Create a simple topology in packet tracer and note down the ports of various devices (Switch, Router, Hub)
2) Simulate the Tree topology in packet tracer
3) Implement star topology in packet tracer and find the MAC table of the switch.
4) Create a small topology with a router, switch and end devices and find the routing table of the router
5) Implement a small topology and implement the PING, Traceroute, nslookup etc. commands in packet tracer
6) Create a topology with one router, 2 switches and 2 end devices to each switch, simulate the same and note down MAC table of both the switches.
7) Implement DHCP server configuration in packet tracer (Take 1 server, 1 switch and 2 end devices)
8) Implement a Web server and DNS server in packet tracer ((Take 2 servers, 1 switch and 2 end devices)
9) Implement static routing in packet tracer (Take 2 routers, 1 switch each and 2 devices to each switch)
10) Implement VLAN in packet tracer (Take 2 switches, 2 end devices each)

Department of Computer Engineering, Vidyalankar Institute of Technology

2-days Hands-On IoT Applied Learning Workshop

9-10 June 2022

Agenda

Day	Time	Event	Venue
Day-1 9-06-2022	10.00 am	Address by Head, Department of Computer Engineering Dr.Sachin Bojewar	M-312
	10.10 am	Address by Founder Grok Learning Pvt.Ltd. Mr.Nitin Komawar	M-312
	10.30 am	Introduction to Grok IoT platform and Hands on IoT application building	M-312
Day-2 10-06-2022	10.00 am	Hands on IoT application building	Grok Learning Pvt.Ltd. 4th floor Amba Bhavan, Sion Circle, near best depo. Sion
	1.00 pm	Vote of thanks	
	1.10 pm	Tea and Snacks	

How to reach Vidyalankar Institute of Technology
- From Wadala station - Bus 117 High frequency
- From Dadar (W), Plaza - Bus 110 Moderate frequency
- Shared Taxi from Wadala Station
- Taxi from Dadar (E)

How to reach Grok Learning Pvt.Ltd.
- Amba Bhavan, Sion Circle, Near Best Bus Depo

Participation certificate will be e-mailed to all the participants on their registered e-mail

"Synergy"- an Industry-Academia Virtual Connect Program

Wednesday, 8th September, 2021
3:30 to 4:30 pm

Event Platform MS Teams

Link to Join:
https://tinyurl.com/yfn9b53z

Mr. Neil Savant
Founder & CEO
NUOS Home Automation - brand by Falcon Control Systems & Automation Pvt. Ltd.

(A Government Registered Start-up under DIPP's Start-up India Policy)
Website: www.nuos.in
Mobile:919619260401
E-mail:neil.savant@nuos.in

Vidyalankar Institute of Technology's Department of Electronics Engineering

Presents

"Synergy"- an Industry-Academia Virtual Connect Program

Second Virtual Industry visit

"Advances in Home Automation "

About NUOS Home Automation

NUOS is a brand with a passion to create IoT products that offer solutions that are beyond smart. Products that think for themselves. NUOS is an offering born out of that drive. NUOS holistic home and office automation solutions are thoughtful and intuitive.

NUOS products are high tech and affordable. And are created right here in India, right from ideation to production. They are a realization of the dream to make a cutting-edge product that is within the reach of everyone.

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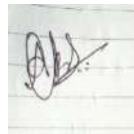# *Certificate of Completion*

This is to certify that

Anushka Chavrekar

Has completed an internship titled

"Various Sensors and Web App Development"

Prof. Pranita Padhye
Internship Guide

Prof. Akshatha Bhat
Internship Coordinator

Dr. Arun Chavan
Head -Electronics Engineering

Internship Period – 22nd June 2022 to 6th July 2022

IP Address Assignment

1) Given the CIDR representation 20.10.30.35 / 27. Find the range of IP Addresses in the CIDR block.
2) Given the CIDR representation 100.1.2.35 / 20. Find the range of IP Addresses in the CIDR block.
3) Consider a block of IP Addresses ranging from 100.1.2.32 to 100.1.2.47.

   a. Is it a CIDR block?
   b. If yes, give the CIDR representation

4) Suppose a network with IP Address 192.16.0.0. is divided into 2 subnets, find number of hosts per subnet. Also, for the first subnet, find-

   a. Subnet Address
   b. First Host ID
   c. Last Host ID
   d. Broadcast Address

5) What is **not true** about subnetting?

   a. It is applied for a single network
   b. It is used to improve security
   c. Bits are borrowed from network portion
   d. Bits are borrowed from Host portion

6) In a class B, network on the internet has a subnet mask of 255.255.240.0. What is the maximum number of hosts per subnet?

   a. 4096
   b. 4094
   c. 4092
   d. 4090

7) If the subnet mask 255.255.255.128 belongs to class C, find-

   a. Number of subnets
   b. Number of hosts in each subnet

8) If a class B network has a subnet mask of 255.255.248.0, what is the maximum number of hosts per subnet?

   a. 1022
   b. 1023
   c. 2046
   d. 2047

9) Consider the following subnet masks-

   1. 255.0.0.0

2. 255.128.0.0
3. 255.192.0.0
4. 255.240.0.0
5. 255.255.0.0
6. 255.255.254.0
7. 255.255.255.0
8. 255.255.255.224
9. 225.255.255.240

For each subnet mask, find-

a. Number of hosts per subnet
b. Number of subnets if subnet mask belongs to class A
c. Number of subnets if subnet mask belongs to class B
d. Number of subnets if subnet mask belongs to class C
e. Number of subnets if total 10 bits are used for the global network ID

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Overview

Grades

Notes

Discussion Forums

Messages

Course Info

Grades

✅   You have completed all of the assignments that are currently due.

Item	Status	Due	Weight	Grade
✅ My PC's Internet & Gateway Quiz	Passed	📅 Apr 25 11:59 AM +05	20%	100%
✅ TCP/IP Protocol Quiz	Passed	May 2 11:59 AM +05	20%	100%
✅ Internet Routing & Functions Quiz	Passed	May 9 11:59 AM +05	20%	90%
✅ Internet Security Quiz	Passed	May 16 11:59 AM +05	20%	100%
✅ Wireshark Internet Project Quiz	Passed	May 23 11:59 AM +05	20%	100%

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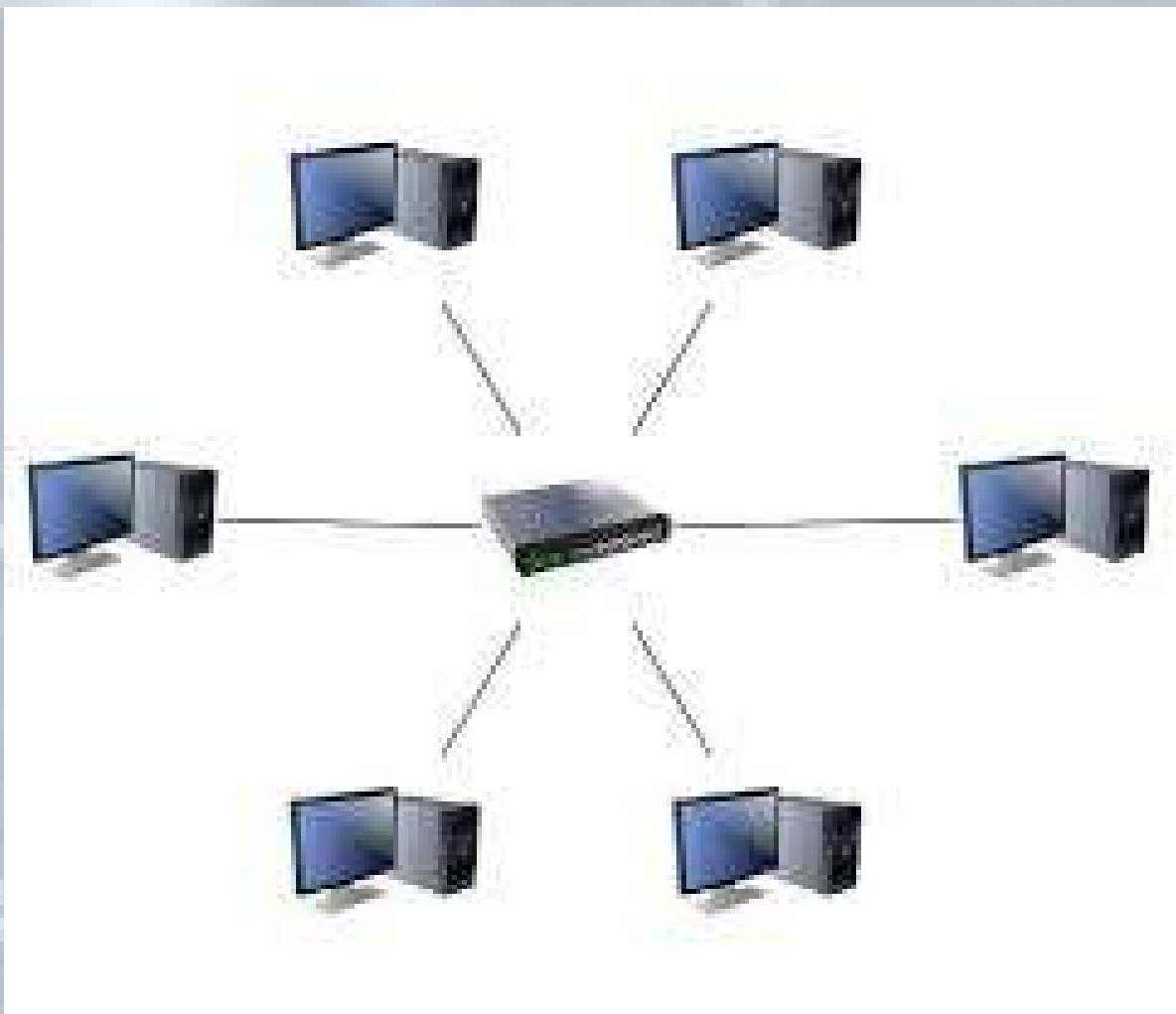
Darshankumar Mohite (19103A0038)
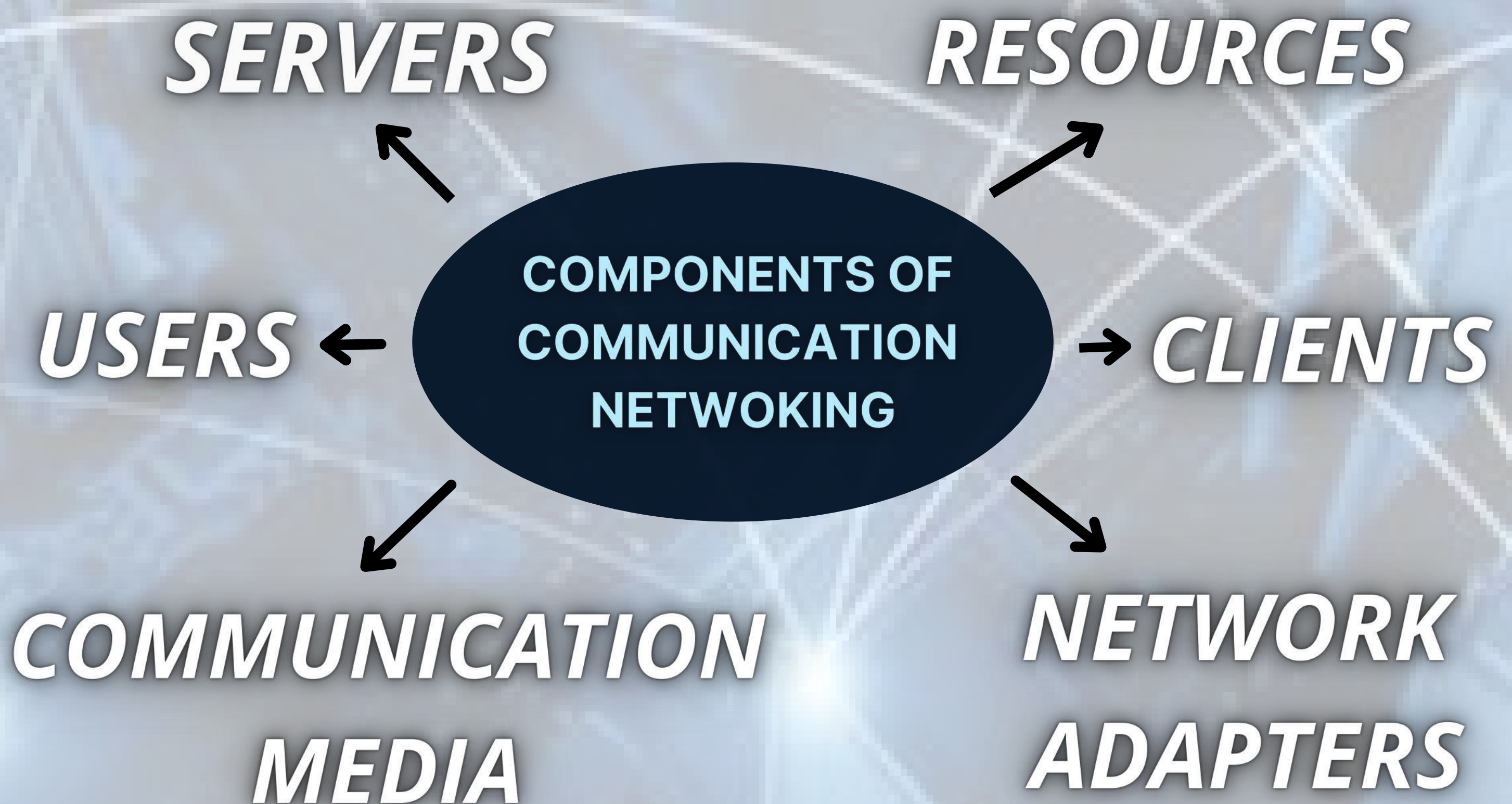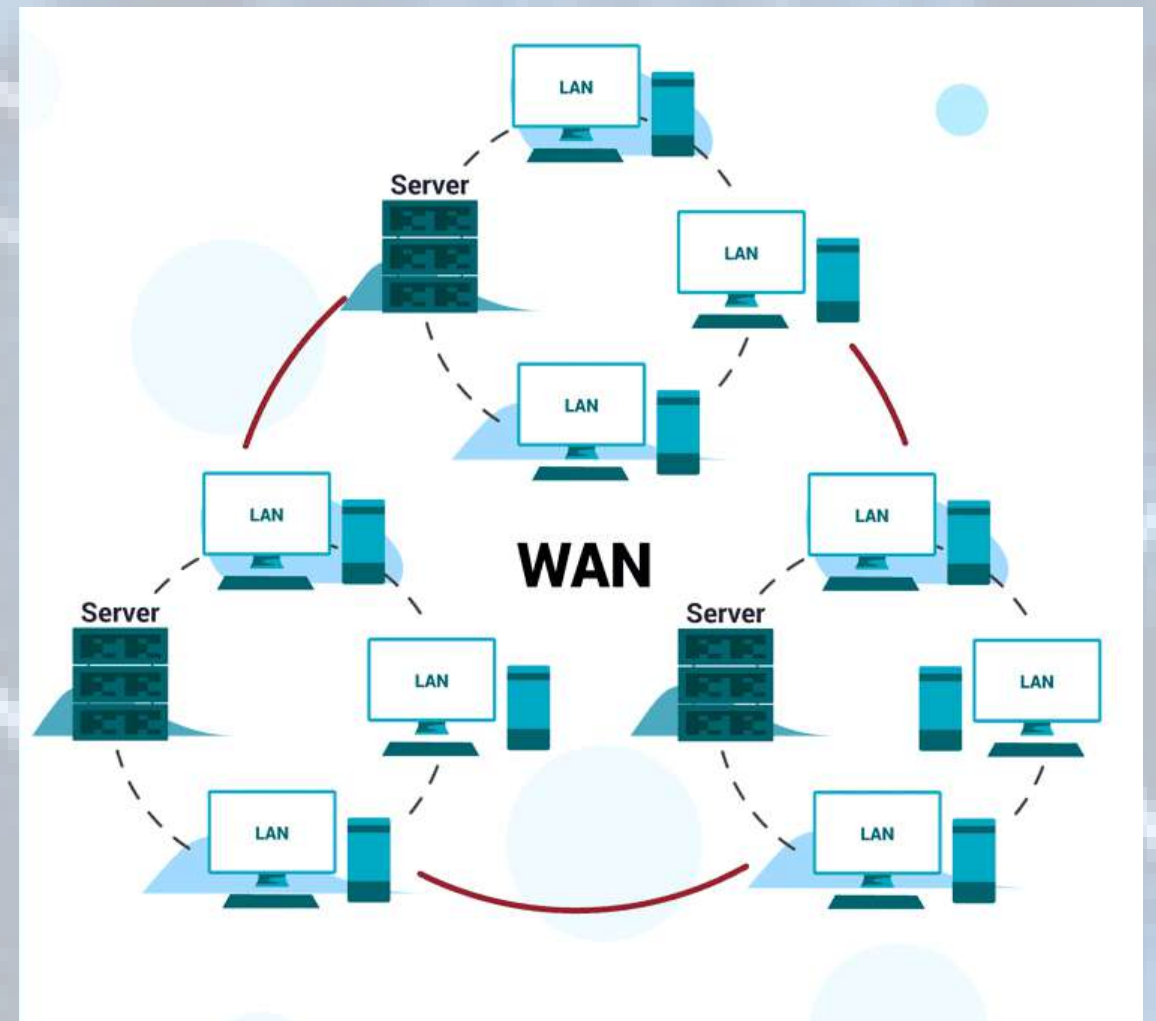Atharva Sohani (19103A0043)
Rucha Patil (19103A0051)
Sunjanaa Katke (19103A0055)

A network is a connection of two or more computers that enables these computers to share resources and communicate with each other.

LOCAL AREA NETWORK (LAN)

WIDE AREA NETWORK (WAN)

SERVERS

RESOURCES

USERS

COMPONENTS OF COMMUNICATION NETWOKING

CLIENTS

COMMUNICATION MEDIA

NETWORK ADAPTERS

The cram of Network Security with Its stabbing Attacks and likely Security Mechanisms

Asst. Prof. J Kishore Kumar
Ramaiah Institute of Business studies
Bangalore, India
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Abstract- Security is a fundamental component in the computing and networking technology. The first and foremost thing of every network designing, planning, building, and operating a network is the importance of a strong security policy. Network security has become more important to personal computer users, organizations, and the military. With the advent of the internet, security became a major concern. The internet structure itself allowed for many security threats to occur. Network security is becoming of great importance because of intellectual property that can be easily acquired through the internet. There are different kinds of attack that can be when sent across the network. By knowing the attack methods, allows for the appropriate security to emerge. Many businesses secure themselves from the internet by means of firewalls and encryption mechanisms. There is a large amount of personal, commercial, military, and government information on networking infrastructures worldwide and all of these required different security mechanisms. In this paper, we are trying to study most different kinds of attacks along with various different kinds of security mechanism that can be applied according to the need and architecture of the network.

Keywords- Network Security, attacks, hackers, Cloud-environment security, zero-trust model, Trend Micro internet security.

I. INTRODUCTION

Network Security management is different for all kinds of situations and is necessary as the growing use of internet. A home or small office may only require basic security while large businesses may require high-maintenance and advanced software and hardware to prevent malicious attacks from hacking and spamming [1]. New Threats Demand New Strategies as the network is the door to your organization for both legitimate users and would-be attackers. For years, IT professionals have built barriers to prevent any unauthorized entry that could compromise the organization's network. And this network security is important for every network designing, planning, building, and operating that consist of strong security policies. The Network Security is constantly evolving, due to traffic growth, usage trends and the ever changing threat landscape [3].

For example, the widespread adoption of cloud computing, social networking and bring-your-own-device (BYOD) programs are introducing new challenges and threats to an already complex network. According to the UK Government, Information security is: "the practice of ensuring information is only read, heard, changed, broadcast and otherwise used by people who have the right to do so" (Source: UK Online for Business). Information systems need to be secure if they are to be reliable. Since many businesses are critically reliant on their information systems for key business processes (e.g. websites, production scheduling, transaction processing), security can be seen to be a very important area for management to get right. The vast topic of network security is analyzed by researching the following

- History of security in networks.
- Internet architecture and vulnerable security aspects of the Internet.
- Types of internet attacks and security methods.
- Security for networks with internet access.
- Current development in network security hardware and software.

When considering network security, it must be emphasized mainly that the whole network should be remaining secure. Network security does not only concern the security in the computers at each end of the communication chain. When transmitting data the communication channel should not be vulnerable to attack, where the chances of threats are more penetrating.

A possible hacker could target the communication channel, obtain the data, decrypt it and re- insert a false message. Hence, securing the network is just as important as securing the computers and encrypting the message which we want to be kept private. When

developing a secure network, the following need to be considered [1].

1. **Accessibility** – authorized users are provided the means to communicate to and from a particular network.

2. **Confidentiality** – Information in the network remains private, discloser should not be easily possible.

3. **Authentication** – Ensure the users of the network are, the user must be the person who they say they are.

4. **Integrity** – Ensure the message has not been modified in transit, the content must be same as they are sent.

5. **Non-repudiation** – Ensure the user does not refute that he used the network.

II. TYPES OF ATTACKS

Networks are subject to attacks from malicious sources. And with the advent and increasing use of internet attach is most commonly growing on increasing. The main categories of Attacks can be from two categories: "Passive" when a network intruder intercepts data traveling through the network, and "Active" in which an intruder initiates commands to disrupt the network's normal operation [6]. A system must be able to limit damage and recover rapidly when attacks occur. There are some more types of attack that are also essential to be considered:

1. **Passive Attack-** A passive attack monitors unencrypted traffic and looks for clear-text passwords and sensitive information that can be used in other types of attacks. The monitoring and listening of the communication channel by unauthorized attackers are known as passive attack. It includes traffic analysis, monitoring of unprotected communications, decrypting weakly encrypted traffic, and capturing authentication information such as passwords. Passive interception of network operations enables adversaries to see upcoming actions. Passive attacks result in the disclosure of information or data files to an attacker without the consent or knowledge of the user.

2. **Active Attack-** In an active attack, the attacker tries to bypass or break into secured systems in the going on communication. This can be done through stealth, viruses, worms, or Trojan horses. Active attacks include attempts to circumvent or break protection features, to introduce malicious code, and to steal or modify information. The unauthorized attackers monitors, listens to and modifies the data stream in the communication channel are known as active attack.

These attacks are mounted against a network backbone, exploit information in transit, electronically penetrate an enclave, or attack an authorized remote user during an attempt to connect to an enclave. Active attacks result in the disclosure or dissemination of data files, DoS, or

modification of data.

3. **Distributed Attack-** A distributed attack requires that the adversary introduce code, such as a Trojan horse or back-door program, to a trusted component or software that will later be distributed to many other companies and users Distribution attacks focus on the malicious modification of hardware or software at the factory or during distribution. These attacks introduce malicious code such as a back door to a product to gain unauthorized access to information or to a system function at a later date.

4. **Insider Attack-** According to a Cyber Security Watch survey insiders were found to be the cause in 21 percent of security breaches, and a further 21 percent may have been due to the actions of insiders. More than half of respondents to another recent survey said it's more difficult today to detect and prevent insider attacks than it was in 2011, and 53 percent were increasing their security budgets in response to insider threats [7]. While a significant number of breaches are caused by malicious or disgruntled employees or former employees many are caused by well meaning employees who are simply trying to do their job. BYOD programs and file sharing and collaboration services like Drop box mean that it will be harder than ever to keep corporate data under corporate control in the face of these well-meaning but irresponsible employees.

5. **Close-in Attack-** A close-in attack involves someone attempting to get physically close to network components, data, and systems in order to learn more about a network. Close-in attacks consist of regular individuals attaining close physical proximity to networks, systems, or facilities for the purpose of modifying, gathering, or denying access to information. One popular form of close in attack is social engineering. In a social engineering attack, the attacker compromises the network or system through social interaction with a person, through an e-mail message or phone. Various tricks can be used by the individual to revealing information about the security of company. The information that the victim reveals to the hacker would most likely be used in a subsequent attack to gain unauthorized access to a system or network.

6. **Spyware attack-** A serious computer security threat, spyware is any program that monitors your online activities or installs programs without your consent for profit or to capture personal information. And this capture information is maliciously used as the legitimate user for that particular kind of work.

7. **Phishing Attack-** In phishing attack the hacker creates a fake web site that looks exactly like a popular

site such as the SBI bank or PayPal. The phishing part of the attack is that the hacker then sends an e-mail message trying to trick the user into clicking a link that leads to the fake site. When the user attempts to log on with their account information, the hacker records the username and password and then tries that information on the real site.

8. Hijack attack- In a hijack attack, a hacker takes over a session between you and another individual and disconnects the other individual from the communication. You still believe that you are talking to the original party and may send private information to the hacker by accidently.

9. Spoof attack- In the spoof attack, the hacker modifies the source address of the packets he or she is sending so that they appear to be coming from someone else. This may be an attempt to bypass your firewall rules.

10. Password attack- An attacker tries to crack the passwords stored in a network account database or a password-protected file. There are three major types of password attacks: a dictionary attack, a brute-force attack, and a hybrid attack. A dictionary attack uses a word list file, which is a list of potential passwords [9]. A brute-force attack is when the attacker tries every possible combination of characters

11. Buffer overflow- A buffer overflow attack is when the attacker sends more data to an application than is expected. A buffer overflow attack usually results in the attacker gaining administrative access to the system in a command prompt or shell.

12. Exploit attack- In this type of attack, the attacker knows of a security problem within an operating system or a piece of software and leverages that knowledge by exploiting the vulnerability.

III.TECHNOLOGIES FOR PROVIDING SECURITY TO THE NETWORK

Internet threats will continue to be a major issue in the global world as long as information is accessible and transferred across the Internet. Different defense and detection mechanisms were developed to deal with attacks mentioned earlier. Some of these mechanisms along with advance concepts are mention in this section.

1. Cryptographic systems- Cryptography is a useful and widely used tool in security engineering today. It involved the use of codes and ciphers to transform information into unintelligible data.

2. Firewall- The firewall is a typical border control mechanism or perimeter defense. The purpose of a firewall is to block traffic from the outside, but it could also be used to block traffic from the inside. A firewall is the front line defense mechanism against intruders to enter in the system. It is a system designed to prevent unauthorized access to or from a private network. Firewalls can be implemented in both hardware and software, or a combination of both [9]. The most widely sold solution to the problems of Internet security is the firewall. This is a machine that stands between a local network and the Internet, and filters out traffic that might be harmful. The idea of a solution in a box has great appeal to many organizations, and is now so widely accepted that it's seen as an essential part of corporate due diligence. Firewalls come in basically three flavors, depending on whether they filter at the IP packet level, at the TCP session level, or at the application level.

3. Driving Security to the Hardware Level-To further optimize performance and increase security, Intel develop platforms also include several complementary security technologies built into multiple platform components, including the processor, chipset, and network interface controllers (NICs). These technologies provide low-level building blocks upon which a secure and high performing network infrastructure can be sustained. These technologies include Virtualization Technology, Trusted Execution Technology and Quick Assist Technology.

4. Intrusion Detection Systems-An Intrusion Detection System (IDS) is an additional protection measure that helps ward off computer intrusions. IDS systems can be software and hardware devices used to detect an attack. IDS products are used to monitor connection in determining whether attacks are been launched. Some IDS systems just monitor and alert of an attack, whereas others try to block the attack. The typical antivirus software product is an example of an intrusion detection system. The systems used to detect bad things happening are referred to generically as intrusion detection systems. Intrusion detection in corporate and government networks is a fast-growing field of security research; this growth has been prompted by the realization that many systems make no effective use of log and audit data.

5. Anti-Malware Software and scanners- Viruses, worms and Trojan horses are all examples of malicious software, or Malware for short. Special so-called anti-Malware tools are used to detect them and cure an infected system. Secure Socket Layer (SSL)-The Secure Socket Layer (SSL) is a suite of protocols that is a

standard way to achieve a good level of security between a web browser and a website. SSL is designed to create a secure channel, or tunnel, between a web browser and the web server, so that any information exchanged is protected within the secured tunnel. SSL provides authentication of clients to server through the use of certificates. Clients present a certificate to the server to prove their identity.

6. Dynamic Endpoint Modeling- Observable's security solution, represents a profoundly new way to look at IT security. It models each device on your network, so you can understand normal behavior and quickly take action when a device starts acting abnormally. There's no need to install agents on the devices, or attempt to use deep-packet inspection, giving you a powerful solution to overcome these new security challenges. Mobile Biometrics- Biometrics on mobile devices will play a bigger role in authenticating users to network services, one security executive predicted. Biometrics emerging on mobile endpoints, either as applications that gather users' behaviors or as dedicated features on mobile endpoints that scan personal features. For example, the iPhone 5s finger scan, will emerge in 2014, if these features are open and extensible, it could lead to real innovation in ensuring the identities of remote users.

IV. SOME ADVANCE NETWORK SECURITY POLICIES

1. **Making Security in Clouds Environment-** Analysts project that IT spending will increase slightly from 2013. This increase in investment is largely attributed to cloud computing [10]. Over half of IT organizations plan to increase their spending on cloud computing to improve flexible and efficient use of their IT resources. Intel Trusted Execution Technology (Intel TXT) is specifically designed to harden platforms against hypervisor, firmware, BIOS, and system level attacks in virtual and cloud environments. It does so by providing a mechanism that enforces integrity checks on these pieces of software at launch time. This ensures the software has not been altered from its known state. This TXT also provides the platform level trust information that higher level security applications require to enforce role-based security policies. Intel TXT enforces control through measurement, memory locking and sealing secrets.

2.**Zero-Trust Segmentation Adoption**-This model was initially developed by John Kindervag of Forrester Research and popularized as a necessary evolution of traditional overlay security models. One alternative that is a strong candidate to improve the security situation is the zero-trust model (ZTM). This aggressive approach to network security monitors every piece of data

possible, under the assumption that every file is a potential threat [11]. It requires that all resources be accessed in a secure manner, that access control be on a need-to-know basis and strictly enforced. The systems verify and never trust; that all traffic be inspected, logged, and reviewed and that systems be designed from the inside out instead of the outside in. It simplifies how information security is conceptualized by assuming there are no longer trusted interfaces, applications, traffic, networks or users. It takes the old model trust but verify‖ and inverts it, because recent breaches have proved that when an organization trusts, it doesn't verify.

3. **Trend Micro Threat Management Services-** Because conventional security solutions no longer adequately protect against the evolving set of multilayered threats, users need a new approach. Trend Micro delivers that approach with the Trend Micro Smart Protection Network [12]. The Smart Protection Network infrastructure provides innovative, real-time protection from the cloud, blocking threats before they reach a user's PC or a company's network. Leveraged across Trend Micro's solutions and services, the Smart Protection Network combines unique Internet-based, or in-the-cloud,‖ technologies with lighter-weight clients.

By checking URLs, emails, and files against continuously updated and correlated threat databases in the cloud, customers always have immediate access to the latest protection wherever they connect from home, within the company network, or on the go. Trend Micro's Threat Management Services provides a comprehensive view of the activities occurring in the network. The solution evaluation offers a unique network security assessment that provides organizations with tangible details on the value of adding an over watch security layer for a current defense-in-depth strategy [13].

The over watch security layer can uncover when a breach has occurred and, more importantly, immediately take action to intercept it and remediate it to ensure that it doesn't happen again. Threat Management Services offers an approach to network security that assesses risk and provides insight on potential gaps within the current security environment.

The Smart Protection Network is composed of a global network of threat intelligence technologies and sensors that deliver comprehensive protection against all types of threats malicious files, spam, phishing, web threats, denial of service attacks, web vulnerabilities, and even data loss. By incorporating in-the-cloud reputation and patent-pending correlation technologies, the Smart Protection Network reduces reliance on conventional

pattern file downloads and eliminates the delays commonly associated with desktop updates. Businesses benefit from increased network bandwidth, reduced processing power, and associated cost savings.

4. Advanced Threat Protection with Big Data- Big Data makes big sense for security as it involves using specialized technologies and techniques to collect, coordinate, store, and analyze truly massive amounts of related and perhaps even disparate data to uncover insights and patterns that would otherwise remain obscured. Leveraging Big Data for information security purposes not only makes sense but is necessary [14]. Big Data analytics can be leveraged to improve information security and situational awareness. For example, Big Data analytics can be employed to analyze financial transactions, log files, and network traffic to identify anomalies and suspicious activities, and to correlate multiple sources of information into a coherent view.

Data-driven information security dates back to bank fraud detection and anomaly-based intrusion detection systems. Fraud detection is one of the most visible uses for Big Data analytics. Credit card companies have conducted fraud detection for decades. However, the custom-built infrastructure to mine Big Data for fraud detection was not economical to adapt for other fraud detection uses. Off-the-shelf Big Data tools and techniques are now bringing attention to analytics for fraud detection in healthcare, insurance, and other fields.

V.CONCLUSION

Security is a very difficult and vital important topic. Everyone has a different idea regarding security' policies, and what levels of risk are acceptable. The key for building a secure network is to define what security means to your need of the time and use. Once that has been defined, everything that goes on with the network can be evaluated with respect to that policy. It's important to build systems and networks in such a way that the user is not constantly reminded of the security system around him but Users who find security policies and systems too restrictive will find ways around them.

There are different kinds of attacks on the security policies and also growing with the advancement and the growing use of internet. In this paper we are trying to study these different kinds of attacks that penetrates our system. As the threats are increasing, so for secure use of our systems and internet there are various different security policies are also developing. In this paper we have mention some of the security policies that can be used mostly by number of users and some new advance qualities that fits to the today's more penetrating environments like Trend micro security mechanism, use

of big data qualities in providing security, etc. Security is everybody's business, and only with everyone's cooperation, an intelligent policy, and consistent practices, will it be achievable.

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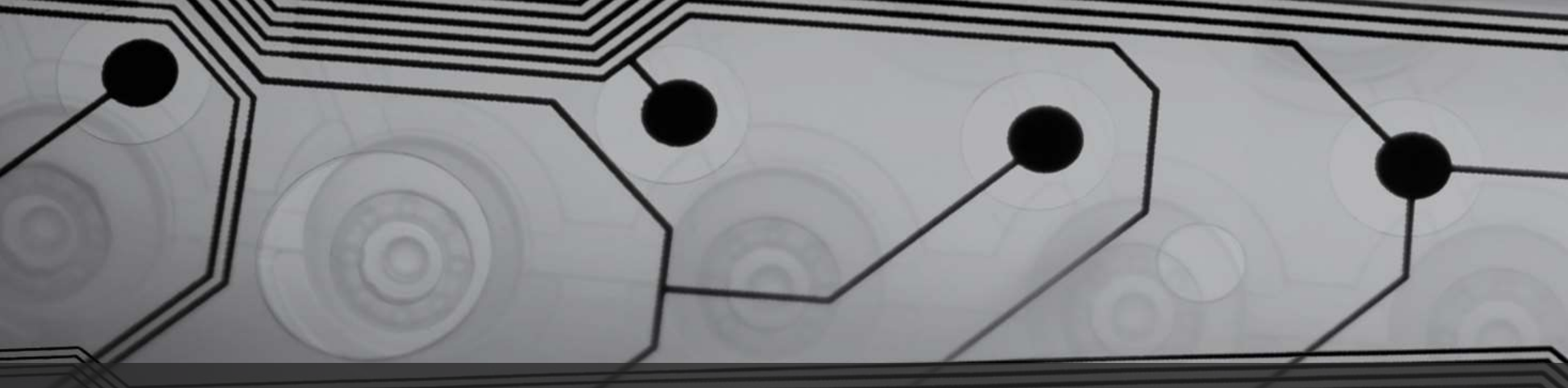
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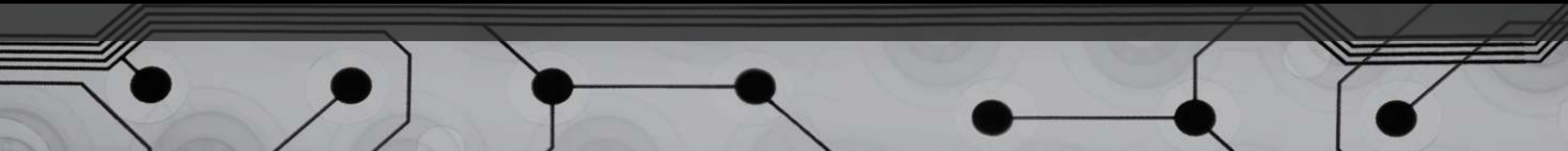
Group Members:

Serial Number	Name	Roll Number
1.	Mitali Bandekar	19103A0026
2.	Vishwas Singh Bist	19103A0027
3.	Prathamesh Satam	19103A0009
4.	Rohit Sawant	19103A0016

Introduction

- Network Security management is different for all kinds of situations and is necessary as the growing use of internet.

- A home or small office may only require basic security while large businesses may require high maintenance and advanced software and hardware to prevent malicious attacks from hacking and spamming.

- For years, IT professionals have built barriers to prevent any unauthorized entry that could compromise the organization's network. And this network security is important for every network designing, planning, building, and operating that consist of strong security policies.

- The Network Security is constantly evolving, due to traffic growth, usage trends and the ever changing threat landscape.

The vast topic of network security is analyzed by researching the following:

- History of security in networks.

- Internet architecture and vulnerable security aspects of the Internet.

- Types of internet attacks and security methods.

- Security for networks with internet access.

- Current development in network security hardware and software

For developing a secure network, the following need to be considered:

- Accessibility – authorized users are provided the means to communicate to and from a particular network.

- Confidentiality – Information in the network remains private, discloser should not be easily possible.

- Authentication – Ensure the users of the network are, the user must be the person who they say they are.

- Integrity – Ensure the message has not been modified in transit, the content must be same as they are sent.

- Non-repudiation – Ensure the user does not refute that he used the network.

Types of Attacks:

Passive Attack:

- A passive attack monitors unencrypted traffic and looks for clear-text passwords and sensitive information that can be used in other types of attacks.

- The monitoring and listening of the communication channel by unauthorized attackers are known as passive attack.

- It includes traffic analysis, monitoring of unprotected communications, decrypting weakly encrypted traffic, and capturing authentication information such as passwords.

- Passive interception of network operations enables adversaries to see upcoming actions. Passive attacks result in the disclosure of information or data files to an attacker without the consent or knowledge of the user.

Types of Attacks:

Active Attack:

- In an active attack, the attacker tries to bypass or break into secured systems in the going on communication.

- This can be done through stealth, viruses, worms, or Trojan horses.

- Active attacks include attempts to circumvent or break protection features, to introduce malicious code, and to steal or modify information.

- The unauthorized attackers monitors, listens to and modifies the data stream in the communication channel are known as active attack.

Types of Attacks:

Distributed Attack:

- A distributed attack requires that the adversary introduce code, such as a Trojan horse or back-door program, to a trusted component or software that will later be distributed to many other companies and users Distribution attacks focus on the malicious modification of hardware or software at the factory or during distribution.

- These attacks introduce malicious code such as a back door to a product to gain unauthorized access to information or to a system function at a later date.

Types of Attacks:

Insider Attack:

- According to a Cyber Security Watch survey insiders were found to be the cause in 21 percent of security breaches, and a further 21 percent may have been due to the actions of insiders.

- More than half of respondents to another recent survey said it's more difficult today to detect and prevent insider attacks than it was in 2011, and 53 percent were increasing their security budgets in response to insider threats .

- While a significant number of breaches are caused by malicious or disgruntled employees or former employees many are caused by well meaning employees who are simply trying to do their job. BYOD programs and file sharing and collaboration services like Drop box mean that it will be harder than ever to keep corporate data under corporate control in the face of these well meaning but irresponsible employees.

Types of Attacks:

Close-in Attack:

- A close-in attack involves someone attempting to get physically close to network components, data, and systems in order to learn more about a network.

- Close-in attacks consist of regular individuals attaining close physical proximity to networks, systems, or facilities for the purpose of modifying, gathering, or denying access to information.

- One popular form of close in attack is social engineering. In a social engineering attack, the attacker compromises the network or system through social interaction with a person, through an e-mail message or phone.

- Various tricks can be used by the individual to revealing information about the security of company.

- The information that the victim reveals to the hacker would most likely be used in a subsequent attack to gain unauthorized access to a system or network

Types of Attacks:

Spyware attack:

- A serious computer security threat, spyware is any program that monitors your online activities or installs programs without your consent for profit or to capture personal information.

- And this capture information is maliciously used as the legitimate user for that particular kind of work

Spoof attack:

- In the spoof attack, the hacker modifies the source address of the packets he or she is sending so that they appear to be coming from someone else.

- This may be an attempt to bypass your firewall rules.

Types of Attacks:

Hijack attack:

- In a hijack attack, a hacker takes over a session between you and another individual and disconnects the other individual from the communication.

- You still believe that you are talking to the original party and may send private information to the hacker by accidently.

Password attack:

- An attacker tries to crack the passwords stored in a network account database or a password-protected file.

- There are three major types of password attacks: a dictionary attack, a brute-force attack, and a hybrid attack.

- A dictionary attack uses a word list file, which is a list of potential passwords.

- A brute-force attack is when the attacker tries every possible combination of characters

TECHNOLOGIES FOR PROVIDING SECURITY TO THE NETWORK:

Cryptographic systems:

- Cryptography is a useful and widely used tool in security engineering today. It involved the use of codes and ciphers to transform information into unintelligible data.

TECHNOLOGIES FOR PROVIDING SECURITY TO THE NETWORK:

Firewall:

- The firewall is a typical border control mechanism or perimeter defense.

- The purpose of a firewall is to block traffic from the outside, but it could also be used to block traffic from the inside.

- A firewall is the front line defense mechanism against intruders to enter in the system.

- It is a system designed to prevent unauthorized access to or from a private network.

- Firewalls can be implemented in both hardware and software, or a combination of both .

- The most widely sold solution to the problems of Internet security is the firewall.

- This is a machine that stands between a local network and the Internet, and filters out traffic that might be harmful.
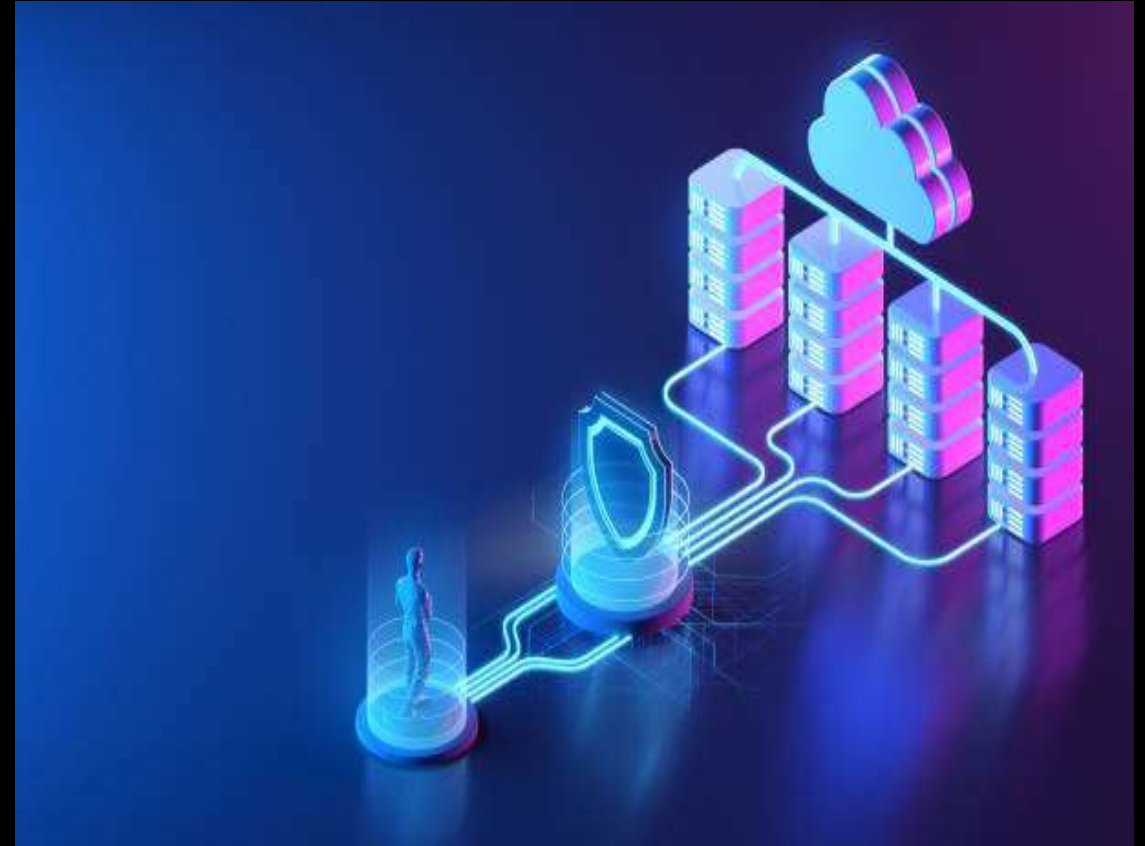
TECHNOLOGIES FOR PROVIDING SECURITY TO THE NETWORK:

Driving Security to the Hardware Level:

- To further optimize performance and increase security, Intel develop platforms also include several complementary security technologies built into multiple platform components, including the processor, chipset, and network interface controllers (NICs).

- These technologies provide low-level building blocks upon which a secure and high performing network infrastructure can be sustained.

- These technologies include Virtualization Technology, Trusted Execution Technology and Quick Assist Technology.
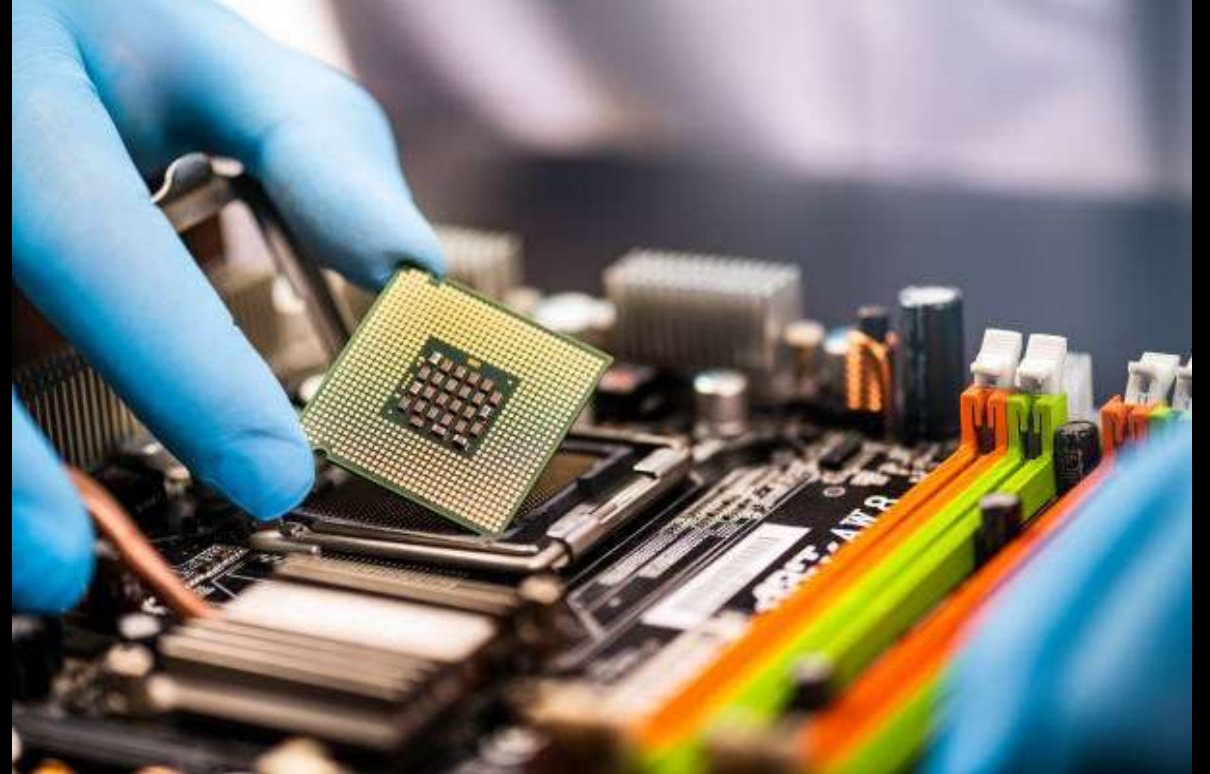
TECHNOLOGIES FOR PROVIDING SECURITY TO THE NETWORK:

Intrusion Detection Systems:

- An Intrusion Detection System (IDS) is an additional protection measure that helps ward off computer intrusions.

- IDS systems can be software and hardware devices used to detect an attack.

- IDS products are used to monitor connection in determining whether attacks are been launched.

- Some IDS systems just monitor and alert of an attack, whereas others try to block the attack.

- The typical antivirus software product is an example of an intrusion detection system.

- The systems used to detect bad things happening are referred to generically as intrusion detection systems.

TECHNOLOGIES FOR PROVIDING SECURITY TO THE NETWORK:

Anti-Malware Software and scanners:

- Viruses, worms and Trojan horses are all examples of malicious software, or Malware for short. Special so-called anti-Malware tools are used to detect them and cure an infected system.

- Secure Socket Layer (SSL)-The Secure Socket Layer (SSL) is a suite of protocols that is a standard way to achieve a good level of security between a web browser and a website.

- SSL is designed to create a secure channel, or tunnel, between a web browser and the web server, so that any information exchanged is protected within the secured tunnel.

- SSL provides authentication of clients to server through the use of certificates.

- Clients present a certificate to the server to prove their identity.

CONCLUSION

- Security is a very difficult and vital important topic.

- Everyone has a different idea regarding security' policies, and what levels of risk are acceptable.

- The key for building a secure network is to define what security means to your need of the time and use.

- Once that has been defined, everything that goes on with the network can be evaluated with respect to that policy.

- It's important to build systems and networks in such a way that the user is not constantly reminded of the security system around him but Users who find security policies and systems too restrictive will find ways around them.

- There are different kinds of attacks on the security policies and also growing with the advancement and the growing use of internet.

- In this paper we are trying to study these different kinds of attacks that penetrates our system.

- As the threats are increasing, so for secure use of our systems and internet there are various different security policies are also developing.

- Security is everybody's business, and only with everyone's cooperation, an intelligent policy, and consistent practices, will it be achievable.

Thank You

BEYOND THE HORIZON ACTIVITY 4 REPORT EVEN SEM 22

Activity name	BEYOND THE HORIZON
Activity Details	16-04-2022
Activity Venue	MS Teams and Zoom
Activity Coordinator	Convener and Chairpersons
Target Audience	FE, SE, TE and BE Students
Objectives	Showcasing skills of students and to establish the idea sharing and creativeness driven by enthusiasm towards a shared goal.
Description	Beyond the Horizon had the main objective to talk and to highlight the topics related to getting into Indian navy and financial management especially for under-graduates and providing ground for turning their dreams into reality. Beyond the Horizon was dedicated to sharing knowledge that matters through short talks and presentations that was carried out successfully. Beyond the Horizon consisted of 2 webinars, Sailing Towards Success which was dedicated to Navy and The Finance Code which as dedicated to financial management. The first speaker was a retired naval officer **Lt. Cdr. Bijay Nair** who talked about his journey of joining Indian Navy and things that motivated him to join the Navy. He also talked about the entrance exams to get into NDA (National Defence Academy) and the challenges he faced during the final tests of his selection. He talked about the initial days in Indian Naval Academy and the stringent rules he had to follow during that time. The second speaker **Mr. Amanpal Singh Chawla** gave some valuable advice about financial planning and how it is important for an individual to save money and plan for their future. He also gave some valuable tips and methods one should follow so he/she won't have to face any financial problems after their retirement. He also stated the point of investing money in various ways. At the end of the event, a short quiz was conducted regarding financial planning and management.
Attendees	Sailing Towards Success Attendees: 73 The Finance Code Attendees: 35

Photographs
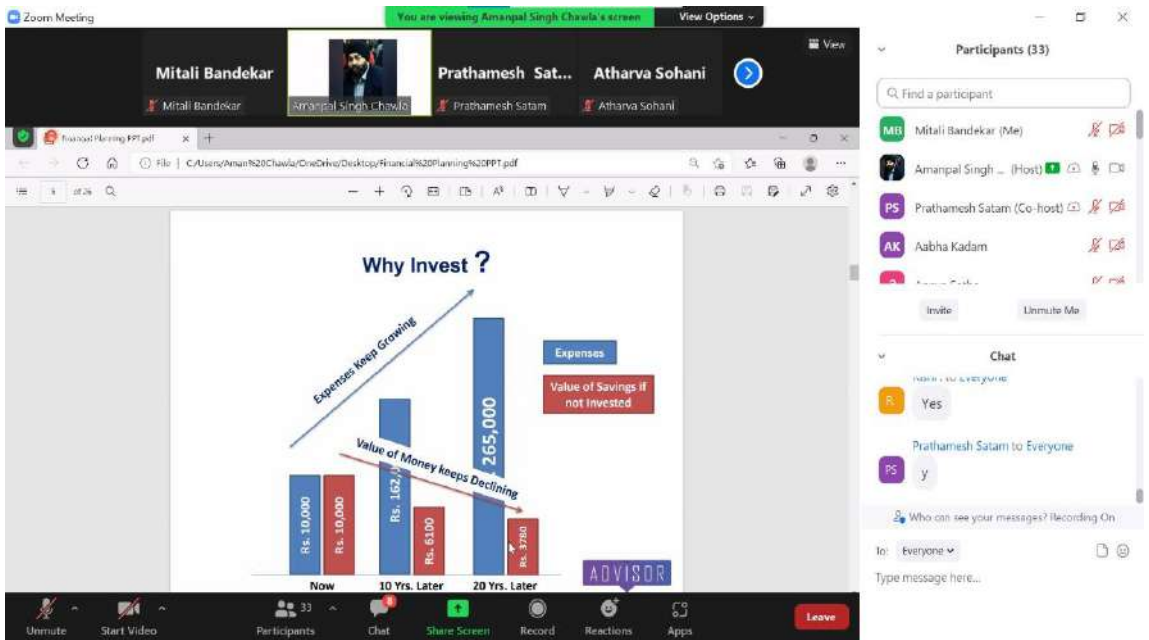
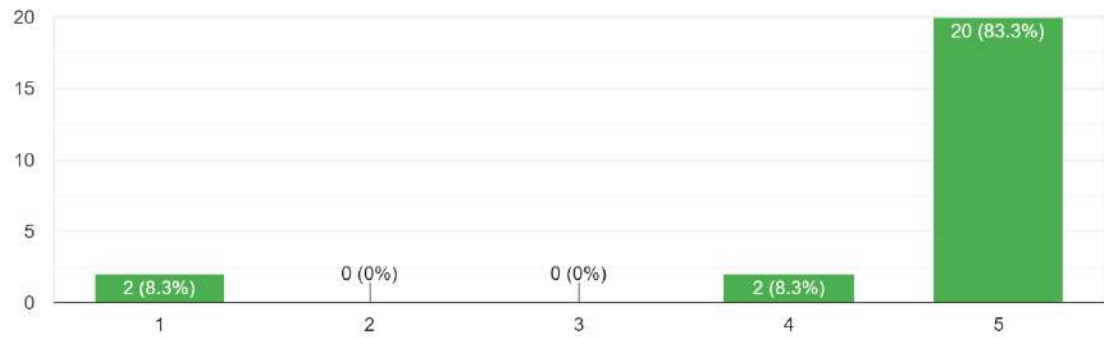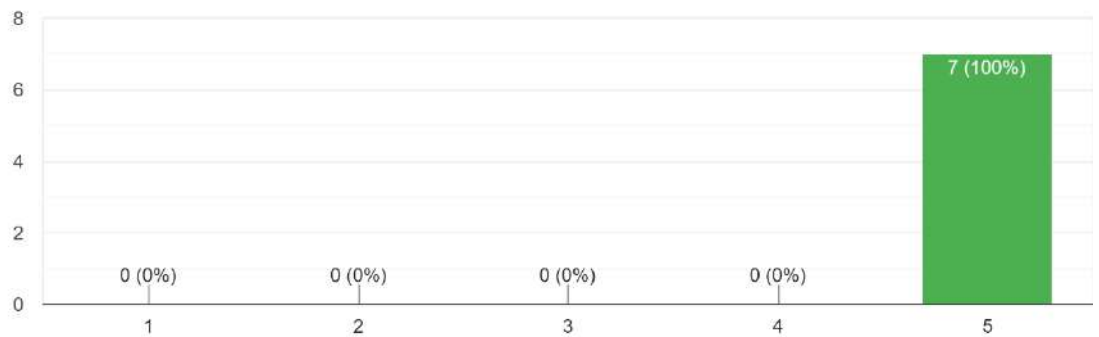| Feedback	Was the event upto your expectations? 24 responses ● Yes ● No ● Maybe Rate the quality of the event 24 responses Rate the quality of the event 7 responses

Suggestions / Appreciation / Feedback

24 responses

Was a great event!!

Very smooth and informative event

Very informative session

I enjoy and got motivated by the words of sir

Such a wonderful and informative seminar it was had enjoyed it alot .

Amazing and Motivational session

Session is very informative, interactive and helpful.

I know bijai sir from long back. He is very good person

It was a great way to help the participants interact with a person who is actually working in a field of interest and also answered a lot of queries about then profession

Prof. Rakshak Sood

Convener, EESA

Niharika Parab

General Secretary

EESA ELECTROSTEER ACTIVITY 2 REPORT ODD SEM 21

|	
Activity name	ELECTROSTEER – *Steering into new era*
Activity Details	18-10-2021
Activity Venue	MS Teams
Activity Coordinator	Convener and Chairpersons
Target Audience	FE, SE, TE and BE Students
Objectives	1. To make students familiar with the insights of Electric Vehicles, which is one of the trending topics in India. 2. To give an idea about the working, pros, cons, etc about Electric vehicle. 3. To give students a brief idea about the future scope of Electric Vehicles and its market in India.
Description	The event **ELECTROSTEER – *Steering into new era*** was hosted by Ms. Apurva Salve from Technical Core, EESA-VIT. The speaker for the event was Mr. Vibhor Garg, co-founder of EMURON. The first session was about Electric mobility. Mr. Vibhor Garg discussed about the growth of EV market and how it is helping and making a remarkable change in market scenario. The students were well explained about the EV ECOSYSTEM and its importance in our life. Students learned about the advantage of multi skill requirement. The speaker also gave an insight about his start up EMURON. Various doubts regarding EV asked by the students were answered by the speaker. The second session was about VIYN (Vehicles in Your Neighbourhood). The founders of VIYN gave detailed information to the students about start up and various ways to enhance the networking. The speakers explained about how to apply for company registration and the advantage of electric mobility. Importance of prototyping and the overall journey of VIYN Mobility was shared with the students.

Photographs
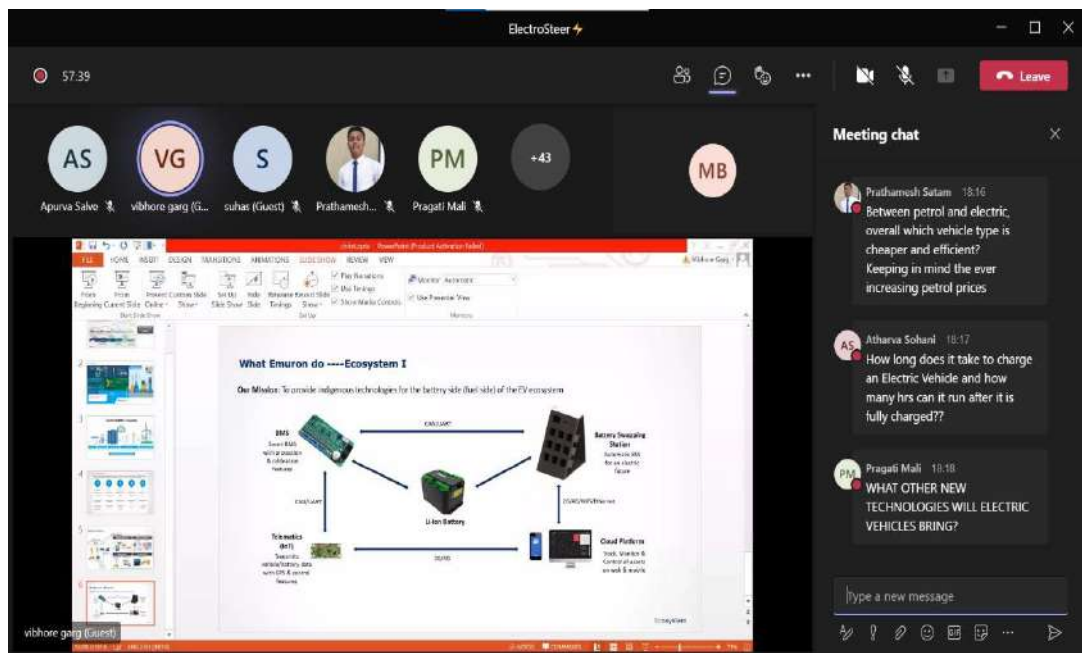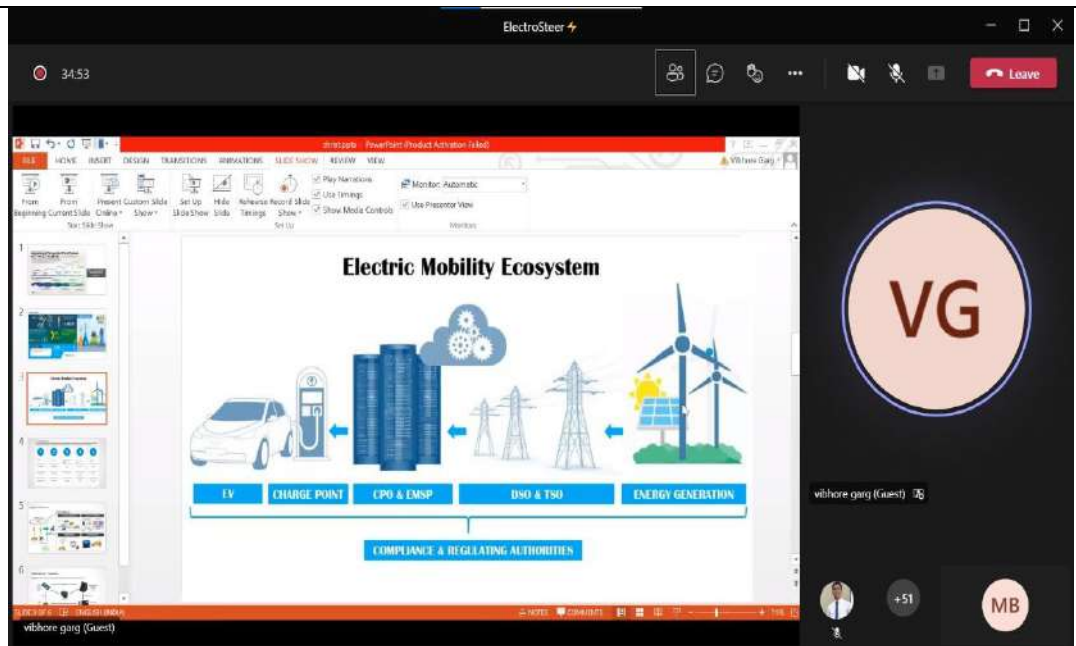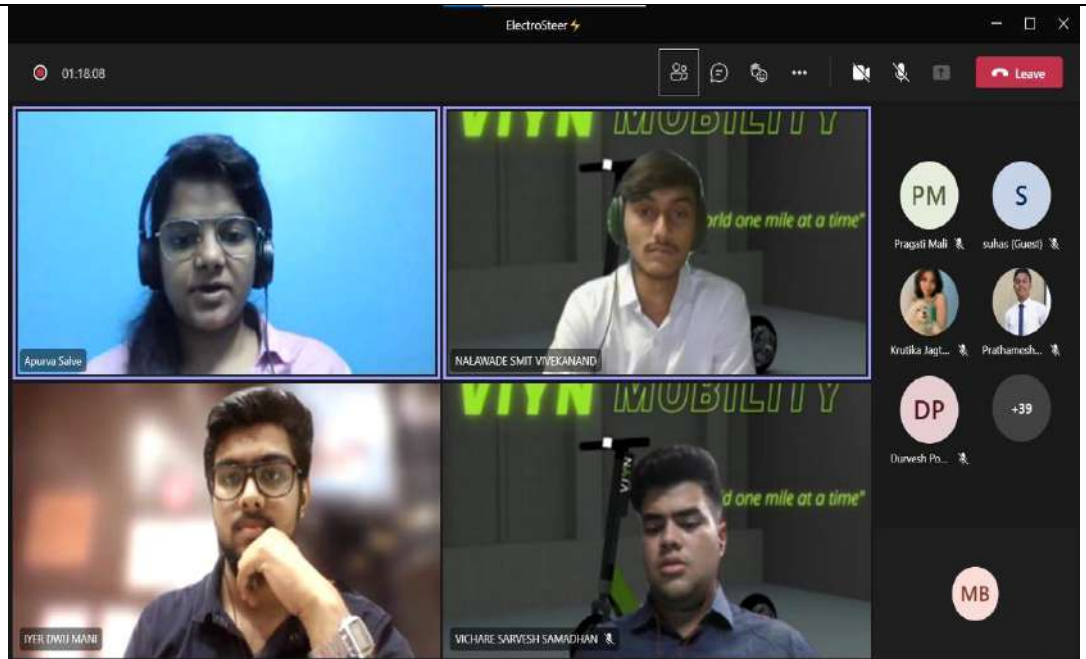
Feedback	Rate the quality of the event
	35 responses
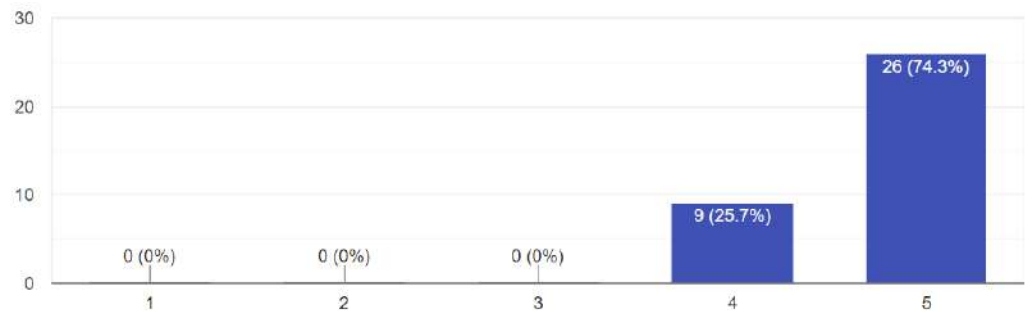
Suggestions/Appreciation/Feedback

35 responses

Welll done guys looking forward to ride your bike hehe.

Informative event!

The event was very informative and helped me gain some knowledge about EV sector and startup buisness.

It was an interactive session
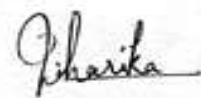
Great session

Great speakers. Well conducted event!

Very good event

It was good

Automation, CNC programming

Prof. Rakshak Sood

Convener, EESA

Niharika Parab

General Secretary

EESA ELECTROVISION ACTIVITY 1 REPORT ODD SEM 21

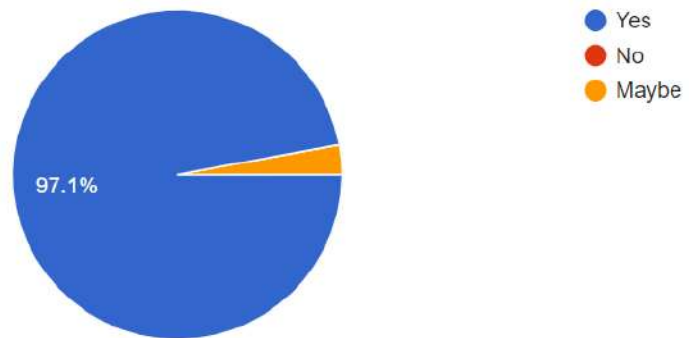|	
Activity name	Electrovision
Activity Details	06-08-2021
Activity Venue	MS Teams
Activity Coordinator	Convener and Chairpersons
Target Audience	FE, SE, TE and BE
Objectives	1. To teach the importance of technical reports to students. 2. To give the students an idea about how to write and present technical papers. 3. To tell the students how to search technical papers online in an effective manner.
Description	The event **ELECTROVISION** was hosted by EESA-VIT's Events Head Ms. Pragati Mali. The speaker for the event was Dr. Sheetal Mapare, Assistant Professor, Electronics Department, VIT. The students were informed about the key points of a technical paper and how it should be presented. Dr. Sheetal Mapare also discussed about the types of technical papers, the common mistakes a student makes during writing a technical paper and how we can effectively search for technical papers online through various websites. The students were neatly explained about the importance of technical papers for projects and higher studies through the webinar. The students were also given a brief idea about how a technical paper should be written, what are the methods to effectively present a technical paper. In the end, various doubts regarding technical papers and its insights which the students had were answered and cleared by Dr. Sheetal Mapare.

| Photographs | |
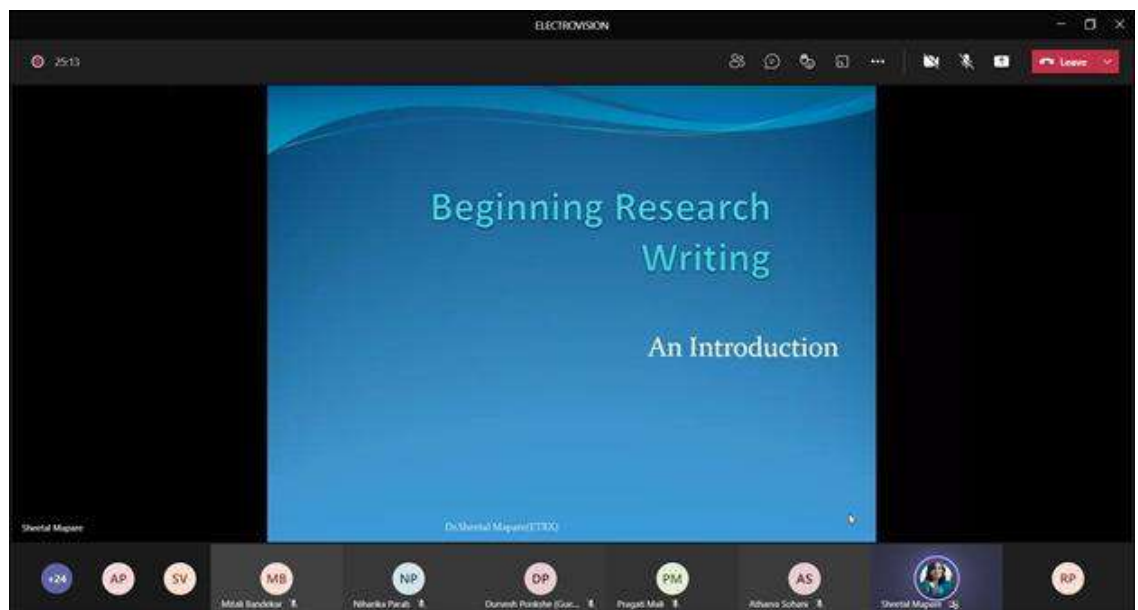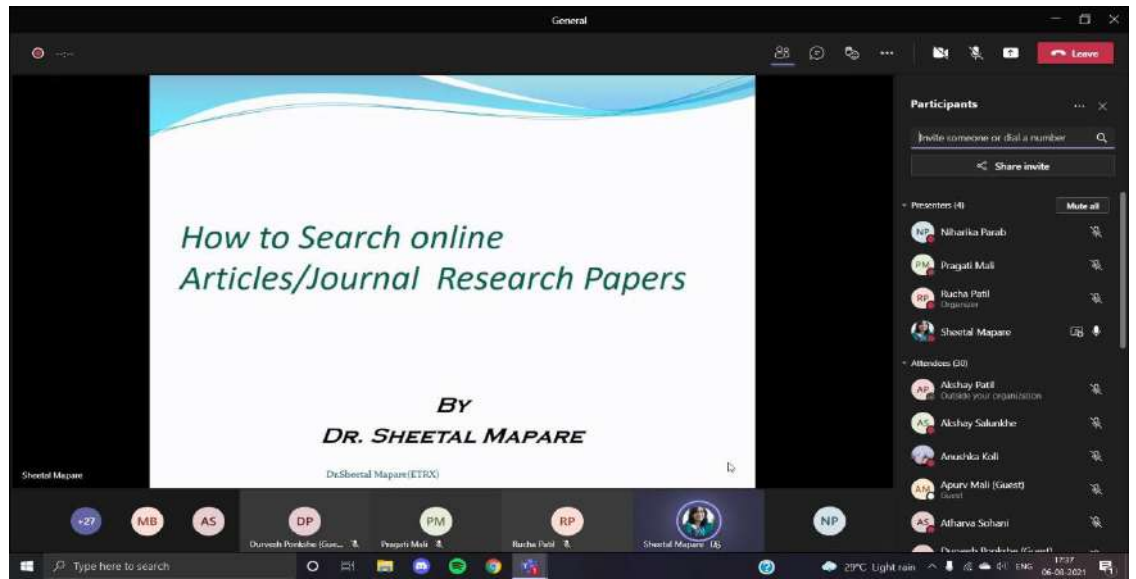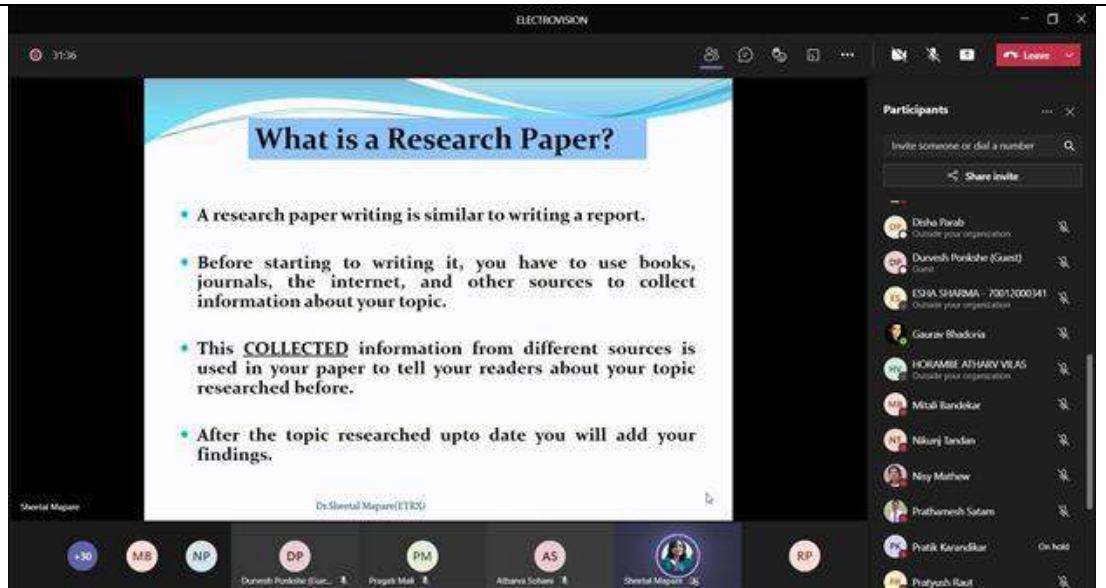
Feedback	**Was the event informative?** 34 responses **Rate the quality of the event.** 34 responses
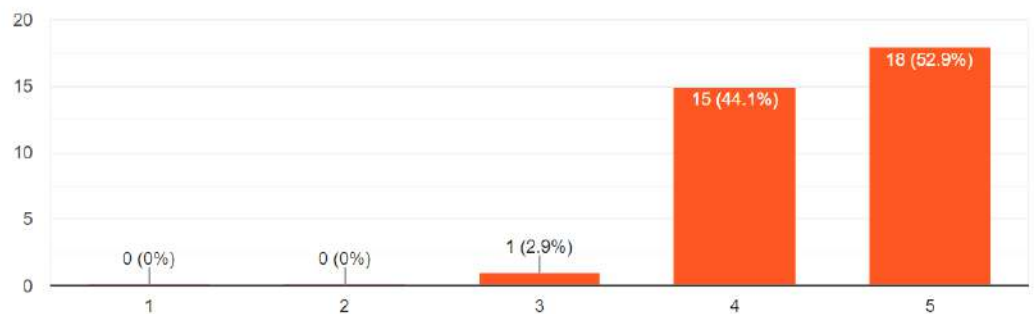
Suggestion / Appreciation / Feedback

32 responses

it was good

Really nice

Great work, enjoyed the session

Really informative

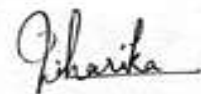It was a really helpful session for me.

Very Informative session

Nicely explained various sites to refer papers .

Great event

Thanku for this event. Very informative.

Prof. Rakshak Sood

Convener, EESA

Niharika Parab

General Secretary

About the Institute:

Vidyalankar Institute of Technology (VIT) is an Engineering Degree and Management Institute, established in 1999 and strives to create industry-ready professionals and entrepreneurs by infusing the right blend of technological expertise and professional acumen, and sensitizes them towards contributing to society. The Institute is approved by AICTE and affiliated to the University of Mumbai. Three Engineering programmes are permanently affiliated to University of Mumbai and are accredited by the NBA. Recently in March 2019 (First Cycle), the Institute was accredited with an A+ Grade by NAAC.

Department of Information technology Engineering:

We at VIT believe that the roots of a great future are created by strong bonds of learning positive lessons. Our department always thrives to sharpen the skill set of the students and make them Industry ready.

About the Workshop:

Theme:

An interactive and Hands on session by eminent expert on cyber security domain.

Objective:

To make participants aware about the importance of the Security domain as the usage of Internet/Network Infrastructure for various different activities has evolved.

Deliverables:

Complete knowledge about a concept in the domain will be given

Hands on for the concept explained will be delivered with all the material shared before the Hands-on sessions

Various tools under the domain will be demonstrated and performed parallelly buy the participants

Outcomes:

Awareness about the domain will be enhanced within the participants, it will provide a platform to speed up with the fundamentals of information security, provides essential information security skills and techniques to protect and secure your critical information and technology assets, whether on-premises or in the cloud, hands-on training to the participants to get a firsthand experience at using some of the most common InfoSec tools.

Target Audience:

Students of TE and BE from any domain can participate.

Registration Fee: Nil

Workshop Dates: 05th and 12th February 2022
Timing: 10am to 1pm

Last Date of Registration: 03rd February 2022

Welcome Address:
Dr. Vipul Dalal, Head of the Department, Information Technology, VIT.

Resource Persons:
Mr Pratik Lotia
Principal Security Engineer I, Public Cloud Infrastructure – Charter

Organizing Team:
Prof Vinita Bhandiwad
9004875054
Prof Kanchan Dhuri
9561785462

Note:
Limited seats for the Workshop
First Come First Serve Basis

Link for Registration form:

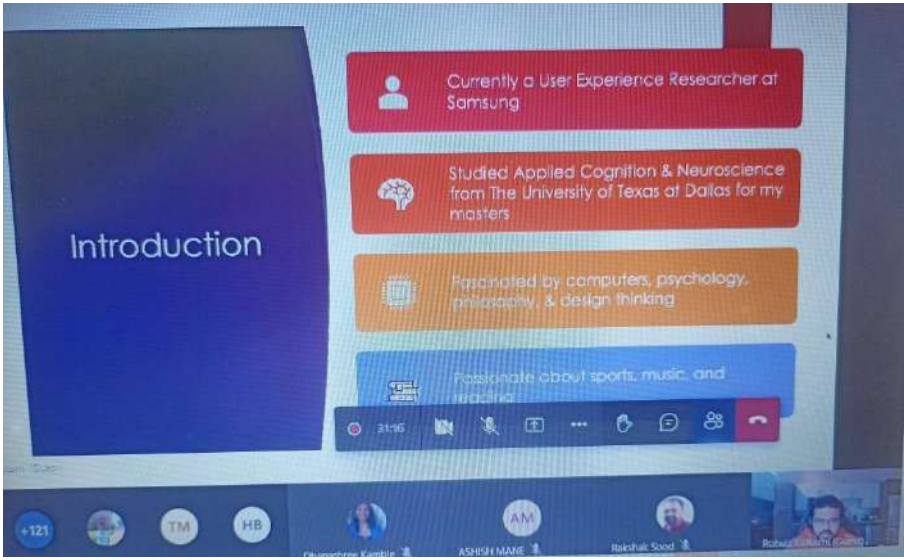**https://forms.office.com/r/QXTrzE8E1B**

Or

Scan the QR Code

Activity Name:	Guest Lecture on **"The Era of Connected World"** in the subject of: *Computer Communication Networks* for Electronics Engineering Students
Guest Speaker Details:	**Mr. Rutwiz Kulkarni** **UI/UX Researcher, Samsung, Dallas** **Texas**
Objective of activity	The webinar mainly focused on educating students about the evolution in the domain of networking and its importance in smart home system. The session also gave emphasis on complex computers meant complex networking mechanism
Attendees	Prof. Pranita Padhye, Prof. Akshata Bhat, Prof. Rakshak Sood Students of TE ETRX Divisions A/B
Activity Details	Day: Thursday Date: 31st March 2022 (9am to 10am) Venue: Online MS Teams
Description of activity/ Summary :	The seminar began with the welcoming of the speaker by Prof. Akshata Bhat. The seminar was started in genuine polite manner but soon took an enthusiastic approach. It was started with welcoming and introducing the speaker. The main topics in the session were as given below- • Emphasis on local networking • Designed for specialized needs • Complex computers meant complex networking mechanism • Very slow & less secure • Costly network engineers The Webinar ended with a vote of thanks by Prof. Pranita Padhye.
Takeaways:	The students got a heap of knowledge to identify the evolution in the world of networking and smart home. The seminar also discussed about Billions of connected devices, Faster transmission & more secure, Emphasis on mobility, Ecosystem of devices etc.
Attendees:	

No. of Students	No. of Faculty	Total
178	03	181

Photos:

Department of Electronics, Vidyalankar Institute of Technology has organized an international Conference on **Advances of Electronics and Computer Technology (ICAECT-2022)** on 07-08 April 2022.The conference is a forum by which faculty and students can interact with research and technology developments at international level.

Objective of the Conference

Vidyalankar Institute of Technology aims to bring together academicians and experts from different parts of the country and abroad to exchange knowledge and ideas.

Vision of conference

Vidyalankar Institute of Technology aims to move a step further in its teaching endeavours and head towards research and promote interdisciplinary collaborations. The International Conference on Advances of Electronics and Computer Technology (ICAECT-2022) is intended to bring together researchers and practitioners, from the academy and industry.

This conference shall be organized with parallel multi- track programmes, which will introduce participants to advances of electronics and computer technology. It will focus on the applications for the 'compliance to industry 4.0.

Conference Details

Brochures were sent to different colleges in December and Conference received a huge response of more than 100 research papers on various fields like industry 4.0, virtual reality and artificial intelligence, power systems and automation, communication, and network security from different parts of the country and abroad.

The papers were reviewed by External and Internal review committees and 64 papers were selected for presentation.

Review Committee (External)

Mr. Ravindra Brammajyosula
Prof. Vilas Mapare
Prof. Dhananjay Maktedkar
Ms. Geetali Saha
Ms. Niranjan Kulkarni
Mr. D A Mehta
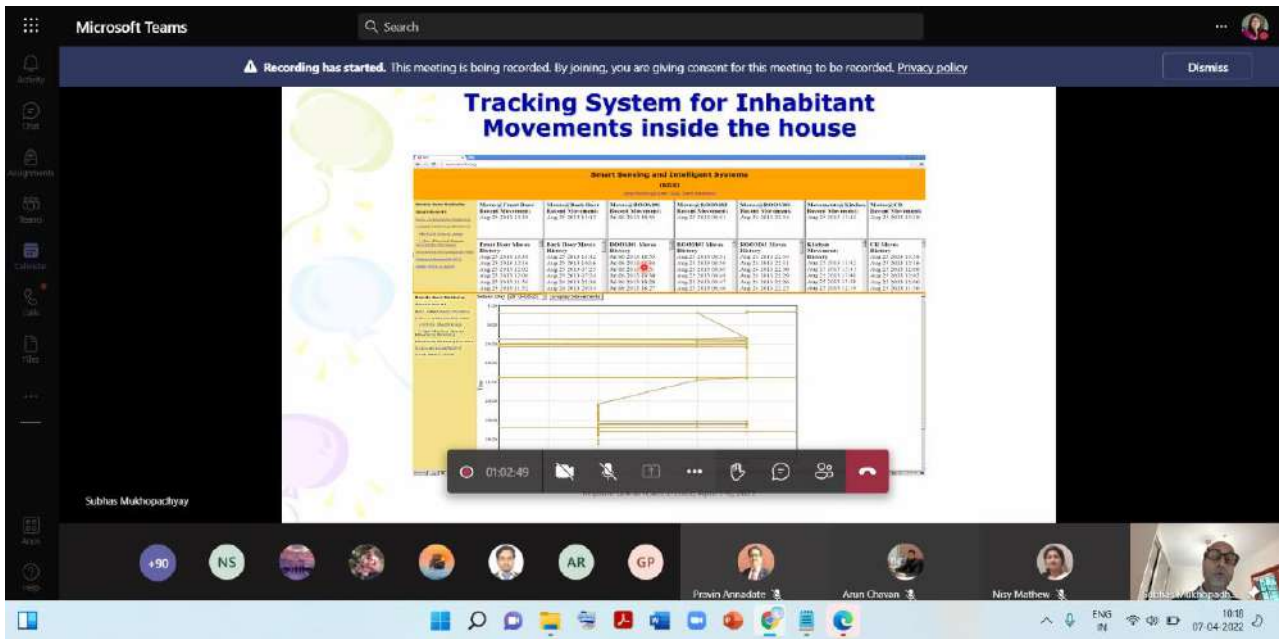Mr. Satish Silaskar
Mr. Vishal Vora
Ms. Nehal Shah

Review Committee (Internal)

Dr. Dhananjay Patel
Dr Vidya Chitre
Dr. Nayana Mahajan
Dr. Vipul Dalal
Dr. Arun Chavan
Dr. Jitendra Toravi
Dr. Sangeeta Joshi
Dr. Girish Gidaye
Prof. Pravin Patil
Prof. Javed Patel
Prof. Pranita Padhye
Prof. Suja Jaychndran
Prof. Sheetal Patil
Prof. Uma Jaishankar
Prof. Anuradha Joshi
Prof. Vibha Wali

The inaugural Function which is held online on 07 April 2022 had Dr. Subhas Mukhopadhyay and Dr. Bounceur Ahcène as Chief Guest and Keynote Speaker. The function was attended by Vice-Principal Prof. Varsha Bhosale, many faculty members and the participants registered for the conference.

The Inaugural session was on 07 April 2022 at 9. 30 a. m. Dr. Subhas Mukhopadhyay, Professor of Mechanical/Electronic Engineering at Macquarie University, Sydney Australia gave the speech on topic IoT Enabled Sensors to generate data to monitor Health, Home, and Environmental conditions. Second guest of honor was Dr. Bounceur Ahcène, professor of Computer Science at the university of Brest (UBO), France. He gave speech on topic CupCarbon: A Platform for Designing and Simulating IoT and Wireless Sensor Networks dedicated to Secured Smart-city applications.

Session on Paper presentation was started at 01:15.00 p.m. simultaneously at 2 different meetings links with the following session details

Schedule Day 1: April 7, 2022		
Session 1 Link (MS Teams): https://tinyurl.com/2yxpadct **Name of the session chair: Dr.Deepali Vora**		
Time	**Paper ID**	**Title of the Paper**
1.15p.m. to 1.30p.m.	17	Business Meeting Summarization using LSTM based Framework Author: Rahul Koli, Harshita Mishra, Jayant Mukundam, Muskaan Sharma, Rupali Hande and Devesh Rajadhyax
1.30p.m. to 1.45p.m.	31	Analysis of static and dynamic characteristics of IPv4 and IPv6 Author: Akshay Kumar Yadav, Dr. Ramesh Gopal Karandikar and Dr. Rupali Pankaj Patil
1.45p.m. to 2.00p.m.	41	Automating Product Tagging for Apparel using ResNet50 Sujata Khedkar, Riya Matwani, Namrata Tolani, Disha Lund and Siddhi Mejar
2.00p.m. to 2.15p.m.	44	Antenna for Industrial, Scientific and Medical: An Overview on Meander line Antenna Design Methods and Design Challenges Author: Pratik Gundigara, Priti Harijan, Dhiraj Chaudhari and Nimmitha Kartha
2.15p.m. to 2.30p.m.	37	Design of dual band microstrip antenna for 5G applications at sub-6 GHz band Author: Nandhini K, Sathiyapriya T and Sudhakar R
2.30p.m. to 2.45p.m.	26	Vehicle Surveillance by Automatic Number Plate Recognition (ANPR) Author: Jayen Modi, Anurag Ubhalkar, Meherzad Aibara and Alston Crasto

Schedule Day 1: April 7, 2022		
Session 2 Link (MS Teams): https://tinyurl.com/2p93rt65 **Name of the session chair: Prof. Sanjeev Gokhale**		
Time	**Paper ID**	**Title of the Paper**
1.15p.m. to 1.30p.m.	1	Detection and Predication of Thyroid Disease using Machine learning techniques Author: Aarathi Nair and Himangi Pande
1.30p.m. to 1.45p.m.	38	Fraud Detection using Multifactor Authentication System Author: Ankana Mukhopadhyay and Pramila Rm

| Time	Paper ID	Title of the Paper
1.45p.m. to 2.00p.m.	18	COVID-19 Distorted Information on Social Networking Platform: A survey of Datasets. Author: Vaishnavi J. Deshmukh and Shweta M Uplenchwar
2.00p.m. to 2.15p.m.	24	An image captioning system for the military Author: Vanshika Bhavnani, Jaishree Golani, Deepika Mangnani, Gunjan Bhawsinghka and Rupali Hande
2.15p.m. to 2.30p.m.	25	Real Time Virtual Apparel Simulator Author: Kiran Rathod, Shrishgovind Revankar, Trisha Singh, Jyoti Tyagi and Jayen Modi
2.30p.m. to 2.45p.m.	54	Fusion of Cryptography and Steganography: A Review Author: Nabaa Farah and Manisha Rawat

| Schedule Day 1: April 7, 2022		
Session 3 Link (MS Teams): https://tinyurl.com/3mzcke25 **Name of the session chair: Prof. S.G.Kadwane**		
Time	**Paper ID**	**Title of the Paper**
3.00p.m. to 3.15p.m.	10	Optimization of PID Controller for controlling a two-link manipulator system Author: Aditi Saxena, Jitendra Kumar and Vinay Kumar Deolia
3.15p.m. to 3.30p.m.	30	Photo Current and Injected Power Author: Yogendra Kumar and Hemant Gupta
3.30p.m. to 3.45p.m.	21	Improved Power Factor by Mono Switched PWM Capacitor Author: Hemant Gupta and Yogendra Kumar:
3.45p.m. to 4.00p.m.	47	Gsm Operated Solar Vehicle Author: Preeti Samdani, Prathamesh Choughule, Adesh Bhikule, Jatin Bhawar and Navin Bhandari
4.00p.m. to 4.15p.m.	56	Extinguishing Fire Using Low Frequency Sound from Subwoofer Author: Rutwik Fegade, Smit Dalvi and Kiran Rai
4.15p.m. to 4.30p.m.	40	V-Digi Board Author: Shreya Amrutkar, Tanya Raut, Shradha Dudhwadkar, Siddhi Bandivdekar and Dr.Nayana Mahajan

Schedule Day 1: April 7, 2022		
Session 4 Link (MS Teams): **https://tinyurl.com/2p96u244** **Name of the session chair: Dr. Dhanajay Patel**		
Time	**Paper ID**	**Title of the Paper**
3.00p.m. to 3.15p.m.	23	Agro- A Digital Guide to Farmers Author: Kushagra Soni, Saamiya Newrekar, Tanya Shrivastava and Kanchan Dhuri
3.15p.m. to 3.30p.m.	32	Evolution Of Automated Sorting System for Industry 4.0 Author: Siddhant Patil, Ashrit Pawar and Aniket Puthran
3.30p.m. to 3.45p.m.	46	Home Automation and Navigation Assistance For The Specially-Abled Author: Jacob Thomas, Pooja Patil, Vaibhavi Patil, and Ashish Patare
3.45p.m. to 4.00p.m.	57	Light Based Data Transmission Author: Gaurav Bhadoria, Harsh Purohit, Pratham Tetgure, Kedar Vaidya and Nayana Mahajan
4.00p.m. to 4.15p.m.	36	Smart Agri-System for Onion Cultivation Using IoT Author: Fathima Zahara, Gokulanand K.R and S. Bharathi
4.15p.m. to 4.30p.m.	33	Total Dissolved Solids (Tds) Meter Author: Soham Bagde, Pratik Soundalkar, Amaya Pethe and Arman Gupta

Schedule Day 2: April 8, 2022		
Session 5 Link (MS Teams): **https://tinyurl.com/2p8d2dwp** **Name of the session chair: Dr. Anjali Deshpande**		
Time	**Paper ID**	**Title of the Paper**
11.30a.m. to 11. 45a.m	28	Compact Oxyvent Author: Harsh Sharma, Vilas Mapare, Saad Surve, Srishti Naik and Onkar Nandoskar
11.45a.m. to 12.00p.m.	53	Design and Analysis of Pharma Tableting Tools for Improvement of Productivity and Tool life Author:Dr. Satish Silaskar, Prathamesh Choughule and Dr.Vilas Mapare
12.00p.m. to 12.15p.m.	29	Efficient Linux Lab Enabled Computing Environment Author: Vilas Mapare, Niranjan Kulkarni, Sanjay Sharma, Pratyush Urade and Chandrashekhar Raut
12.15p.m to 12.30p.m.	58	Hydro Rescuer Author:Dev Makwana, Mahek Panchal, Anupriya Gandhewar, Rohan Chavan and Rahul Nade
12.30 p.m. to 12.45p.m.	11	Data Transmission with Security-Enhanced Algorithms for 4G Networks Author: Vikas Kaul

12.45p.m. to 1.00p.m.	59	Face Mask Detection Author:Asmita Bhekre, Deepak Varak, Ruchira Gupte, Soham Dalvi and Sheetal Mapare

Schedule Day 2: April 8, 2022		
Session 6 Link (MS Team): https://tinyurl.com/22wnfjb6 **Name of the session chair: Dr. Girish Gidaye**		
Time	**Paper ID**	**Title of the Paper**
11.30a.m. to 11.45a.m	49	Smart Hand Disinfectant Author: Shubham Khamkar, Akshay Dambare, Kalpita Kamat and Rishiraj Dabhane
11.45a.m. to 12.00p.m	64	Enhancing the performance of Wireless Sensor Networks by integrating with Optical Fiber Communication Author: Akshatha Bhat
12.00p.m. to 2.15p.m	16	Ive- Video Streaming Application Author: Pratik Poojari, Tilak Jangid, Sagar Patil and Debarati Ghosal
12.15p.m to 12.30p.m.	62	Advance Booking System for Auditorium & Seminar Hall Author: Swapnil Mitbander, Sonali Sanap, Tanvi Jadhav, Nisha Mishra and Nisy Elsa Mathew
12.30 pm to 12.45p.m	55	Review on Non-Invasive Blood Glucose Measurement using Microwave Sensors and Machine Learning Author: Anup Vibhute, Pratik Mhatre and Ajinkya Kulkarni
12.45p.m. to 1.00p.m.	63	Micro Aerial Spy Robot for Military purpose using Flapping Wing Mechanism Author: Akshatha Bhat and Sainath Attarde
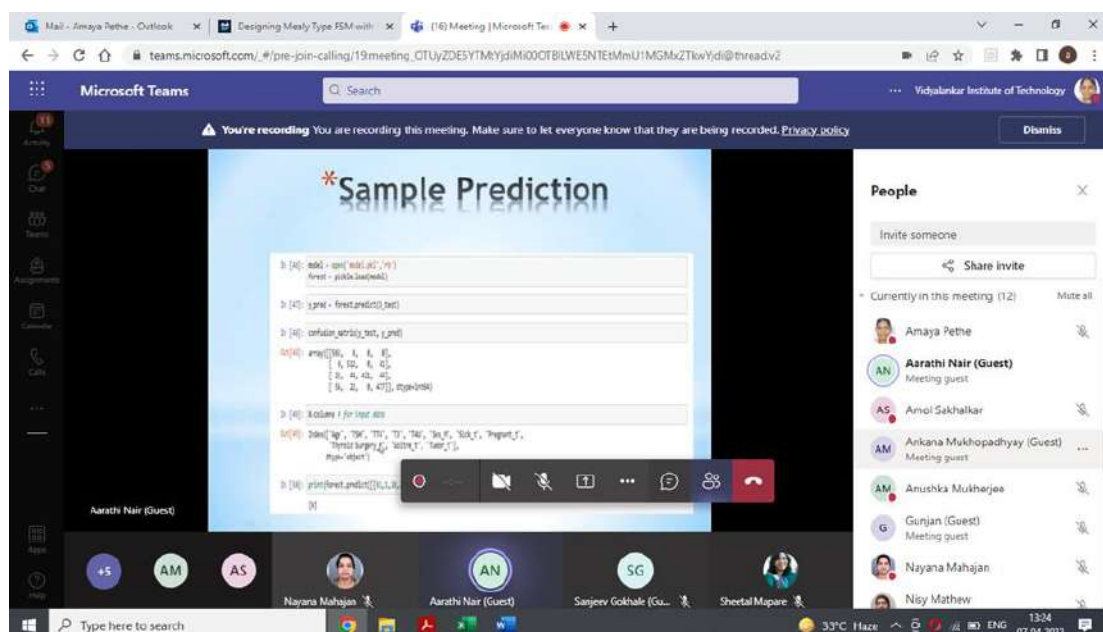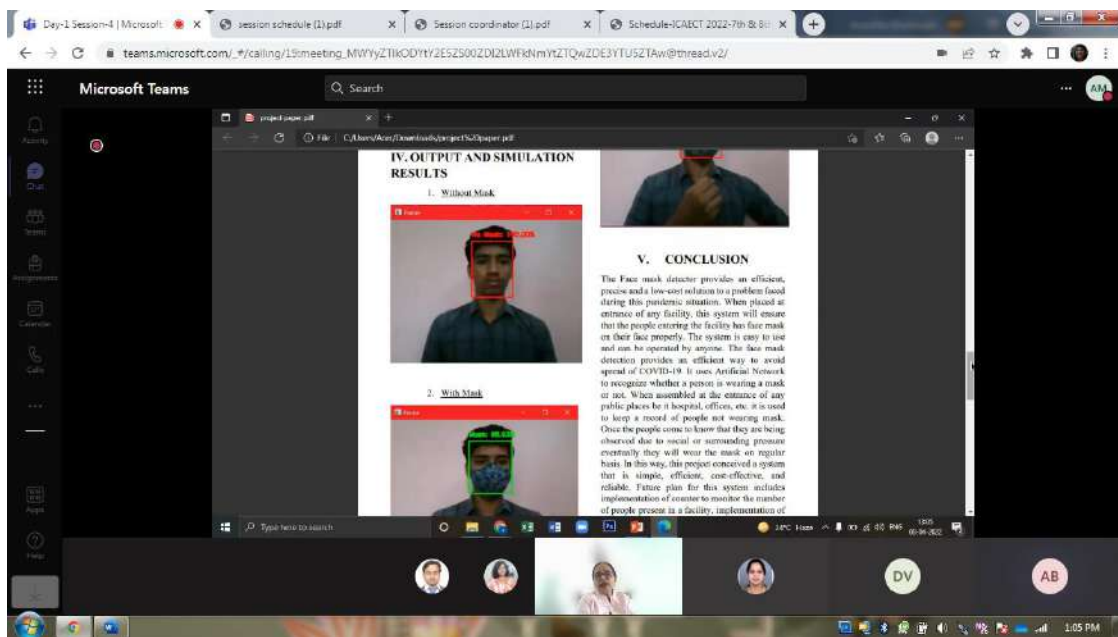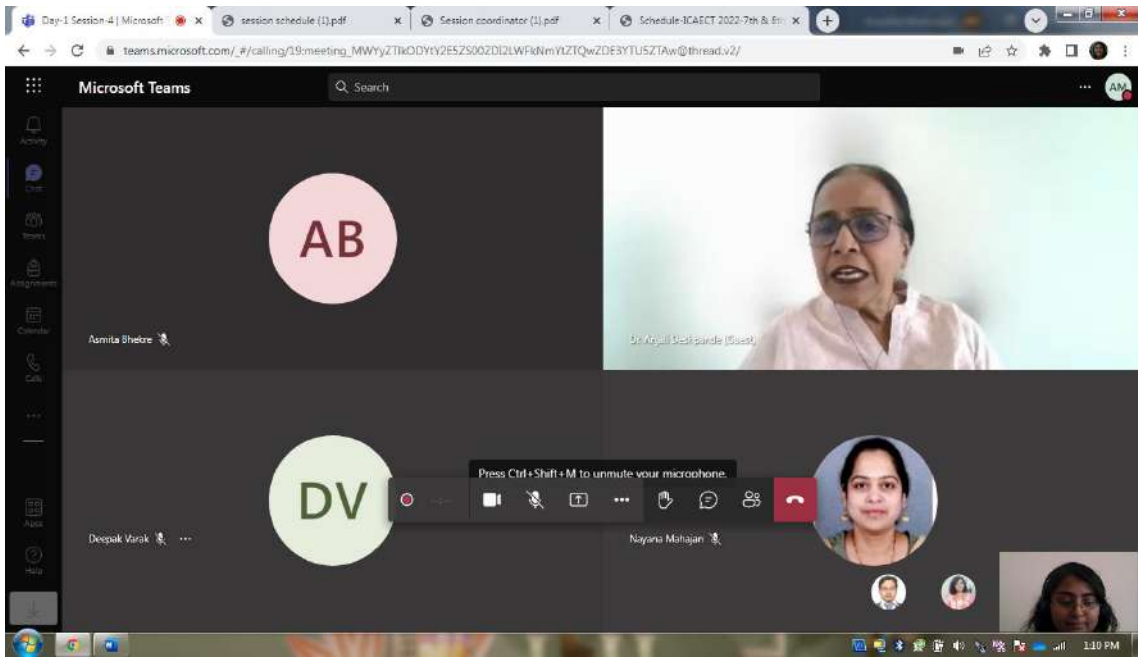
The session chairs were keen to hear the papers presented and gave constructive comments on various sessions.

Second day of the conference has workshop and hands on session on MATLAB which was attended by many students.

Feedback:

All session chairs had given positive feedback about the papers and comments were given to each paper. Session chairs and Moderators were happy with arrangements during the conference.
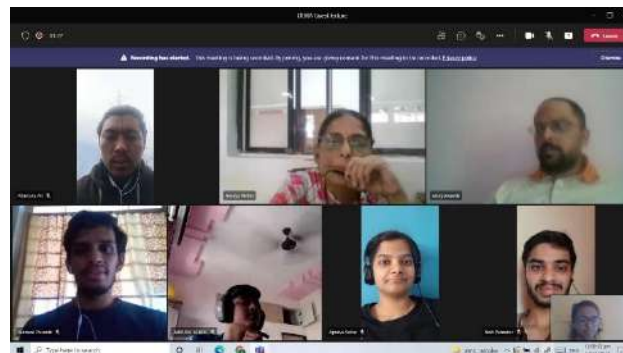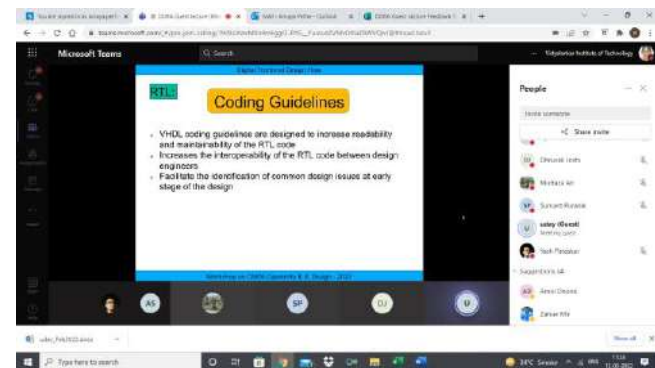
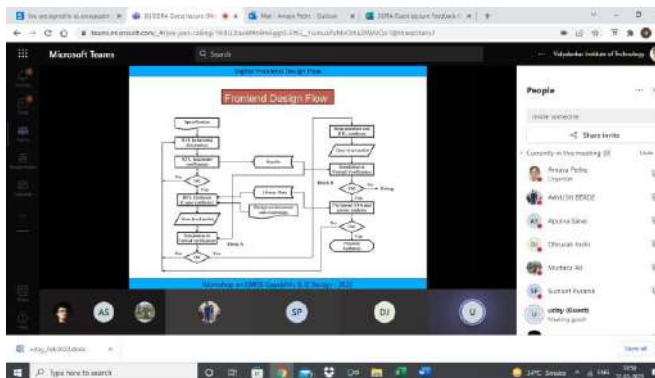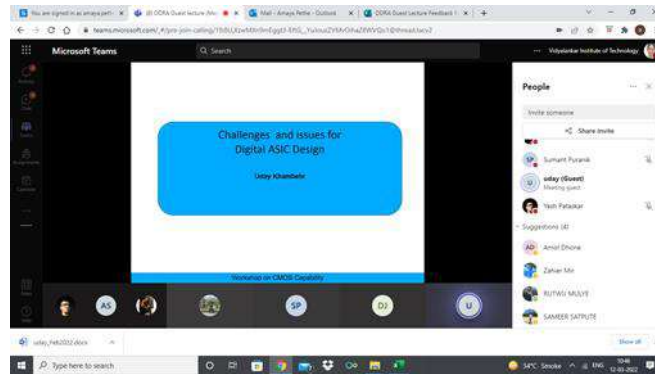**Feedback of participants**

Participants were happy with the arrangements during the conference. They were interested in attending the workshops on the second day of the conference.

Takeaways

This conference has given a platform for the students and faculty of VIT to interact with Industry and academic personal and to know about the recent Innovations in the field of Electronics and Computers.

Activity Name:	Guest Lecture on "Challenges and Issues for Digital ASIC Design" in the subject of Digital Design with Reconfigurable Architecture for semester VI, Electronics Engineering
Guest Speaker Details :	**Mr. Uday Khambete** **Head of Division (Digital Design/VLSI Design Group)**
Objective of activity:	To understand basics of hardware Description language and design flow in digital electronics
Attendees :	Prof. Amaya Pethe Students of TE ETRX
Activity Details:	Day: Saturday Date: March 12, 2022 (10.30 AM to 12.05 PM) Venue: Online (MSteam)
Description of activity/ Summary :	Prof. Amaya Pethe welcomed the speaker Mr. Uday Khambete The session started with introduction of the guest speaker to the audience by Prof. Amaya Pethe. The speaker started her interactive session by explaining recent semiconductor policies announced by central government, Special Manpower Development Program for Chips to System Design (SMDP-C2SD) program,RESPOND programme by ISRO. He then explained the following points ➢ The flow of design with suitable examples. ➢ Interview questions ➢ Glimpses on coding guidelines ➢ Different timing considerations ➢ Importance of datasheet ➢ Different kinds of processors for different applications ➢ Coverage Finally, he concluded the session by giving few ideas related to final year projects like crypto processor, encryption. The session was ended with question and answers. Overall lecture was very interactive and informative.
Takeaways:	The students got an idea about interview questions, Internships and Projects
Attendees:	

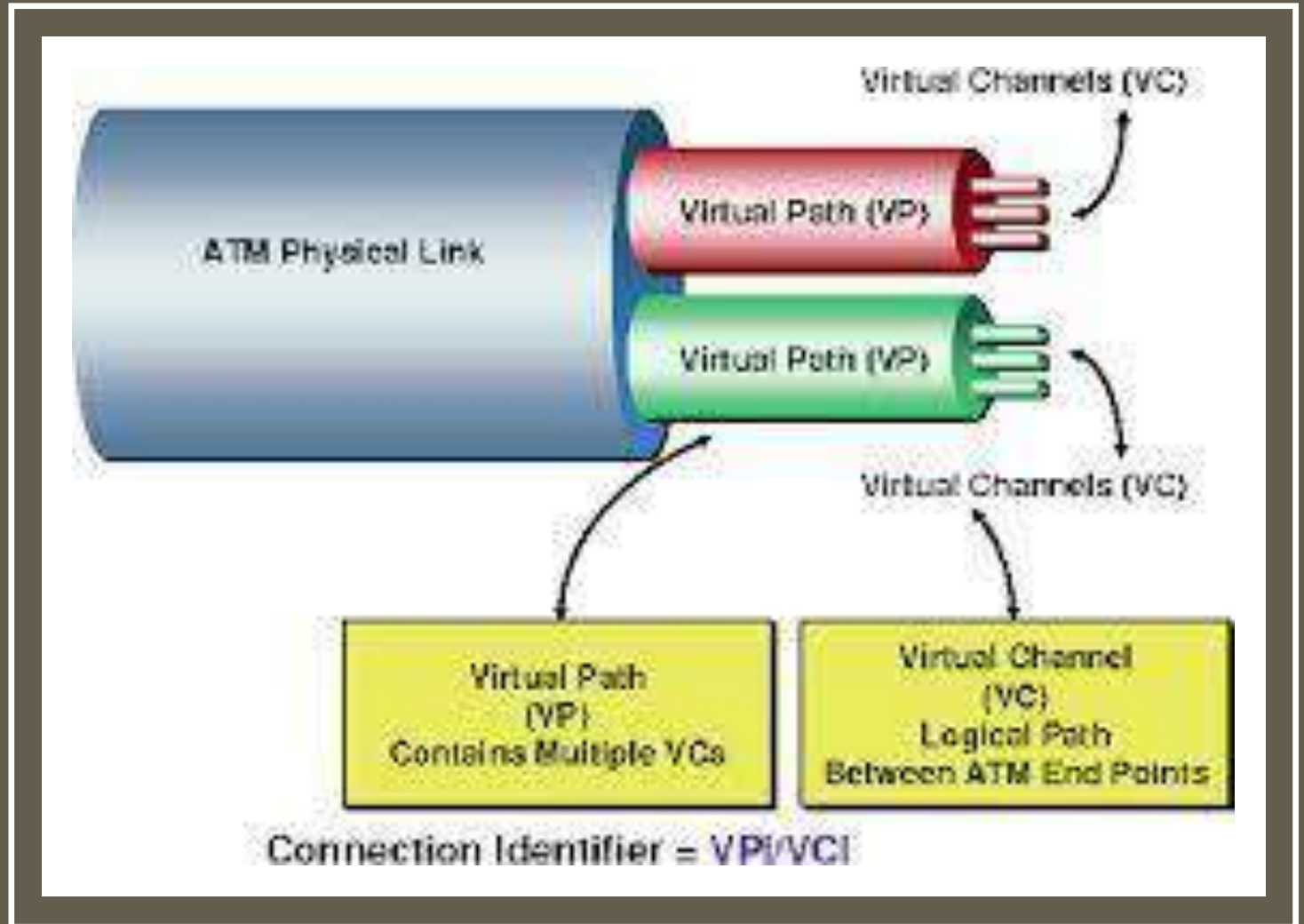| No. of Students	No. of Faculty	Total
06	01	07

Photos:

FLIPPED CLASSROOM ACTIVITY

Subject : Advanced Networking Technologies

LEARNING OBJECTIVE

- The features, characteristics and applications of Asynchronous Transfer Mode

Virtual Channels (VC)

ATM Physical Link

Virtual Path (VP)

Virtual Path (VP)

Virtual Channels (VC)

Virtual Path (VP) Contains Multiple VCs

Virtual Channel (VC) Logical Path Between ATM End Points

Connection Identifier = VPI/VCI

OUT CLASS ACTIVITY

Material links: For students to study before class-

Video 1:
https://www.youtube.com/watch?v=hlw03rvbRhA

Video 2:
https://www.youtube.com/watch?v=LrUrexb_qLA

Sway 1:
https://sway.office.com/MVG8AqzfQLSftXF6?ref=Link

Sway 2:
https://sway.office.com/sUkLgCUNzzopkFNL?ref=Link

IN CLASS ACTIVITIES (INDIVIDUAL ACTIVITY)

Kahoot Game:- https://create.kahoot.it/details/bfd7e4b6-26c4-4429-8342-f6db88c43567

Mentimeter Poll: https://www.mentimeter.com/s/ead597e2c681874b43233b668f33818f/284e1429205e/edit

Quiz: https://forms.office.com/Pages/ResponsePage.aspx?id=fw2wx5mtKkSxL8LJEgRP3JSFnzf6GDBKlIbKgn8tdThURFJCNVYxRFREVk1aVksxMVNRNzRXUkg2SC4u

IN CLASS ACTIVITY

Group Activity:- Make a group, 2 to 3 students per group
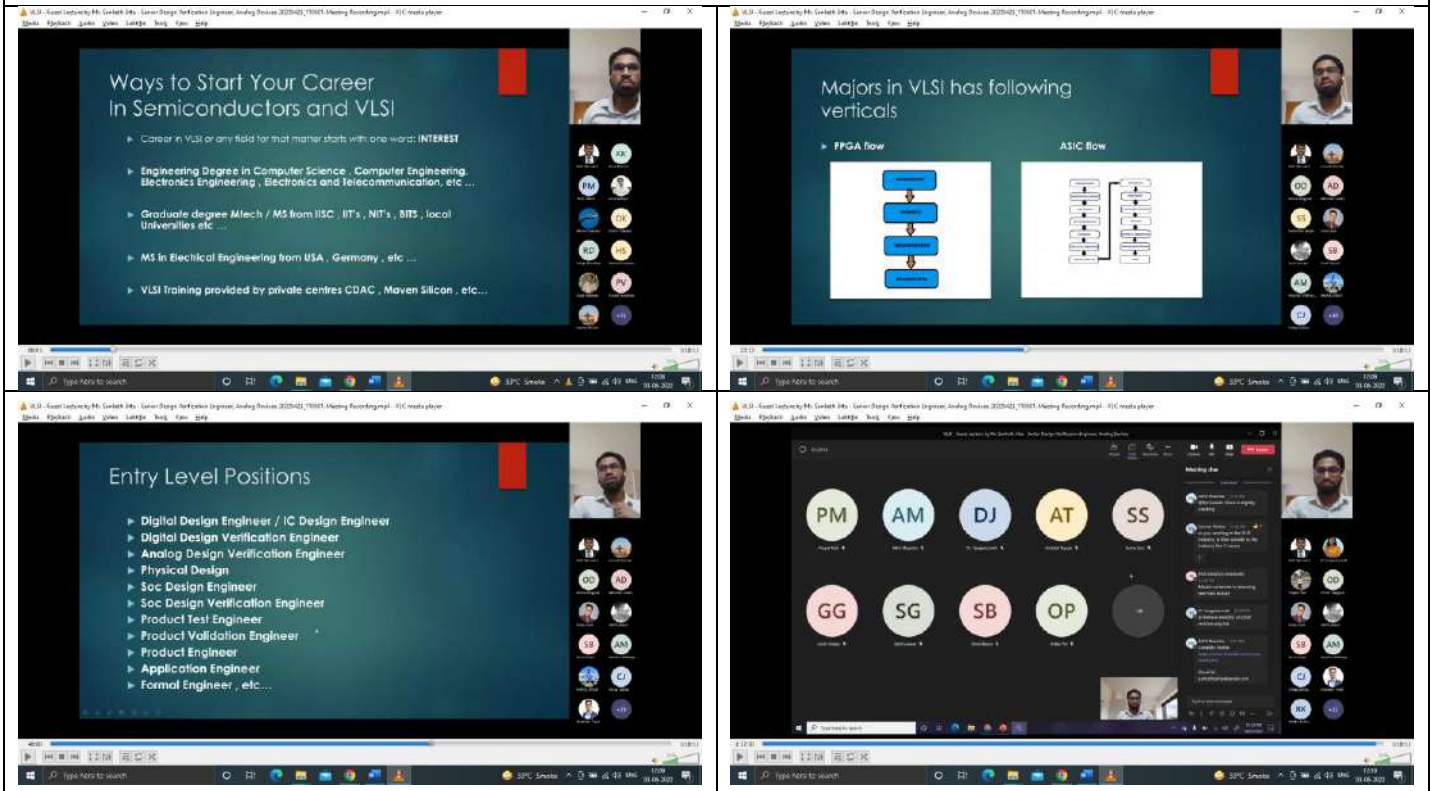
10mins duration:-

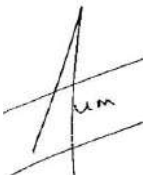Prepare a poster/collage of ATM characteristics and upload on Padlet

Link given below-

https://padlet.com/padhyepranita553/3peyjr1c411a974

Activity Name	Guest Lecture on "Careers in VLSI"
Guest Speaker Details	Mr. Sanketh Jitta Senior Design Verification Engineer, Analog Devices Email: sankethpjitta@gmail.com
Objective of activity	To explore the careers in VLSI
Date and Time	Day: Saturday Date: 23rd April 2022 Time: 10:00 to 11:00 am
Venue	MS Teams
Faculty Co-ordinator	Prof. Akhil Masurkar, Department of Electronics Engineering	Dr. Sangeeta Joshi, Professor, Department of Electronics Engineering	Dr. Girish Gidaye, Professor, Department of Electronics Engineering

Details of the activity	The guest for the day was Mr. Sanketh Jitta, Senior Design Verification Engineer, Analog Devices. Bachelors in Electronics Engineer from Vidyalankar Institute of Technology working in Analog Devices as Senior Design Verification Engineer in Wireless Communication Group. Expertise in RTL design and Verification using SV/UVM testbenches Implementation of next generation MSIE methodology in Verification, TCL based simulation, GLS, Logical Synthesis Genus, Low Power Simulation and BFM's creation for the Emulation models to implement on FPGA's. Current works involves Design Verification of ORAN proposed standard of MS-Plane, and other standard interfaces like QSPI, AMBA APB/AHB/AXI and external Flash Memory, etc. Past Experience as System Verilog Design Verification Product Validation Engineer - 2 at Cadence Design Systems. LinkedIn Profile Link: https://www.linkedin.com/in/sankethjitta/ The guest Lecture covered the following aspects: • Ways to start your career in semiconductors and VLSI • Majors in VLSI • FPGA Flow • ASIC Flow • Entry Level positions in VLSI and requirements • Questions and Answer It was a good learning experience for the students and the keenness was well observed in their reaction. Overall, the session was fruitful and well received by the audience. Webinar ended with question-answer session. Prof. Akhil Masurkar gave the vote of thanks and the feedback regarding the seminar was take from students.

Attendance Statistics	No. of Attendees	Students	Staff
		78	3

Takeaways	Students can now prepare for a career in VLSI Students were made aware about the latest trends in the VLSI Domain

Activity Screenshots:

Prof. Akhil Masurkar Electronics Engineering Cluster Mentor – Analog and Mixed VLSI	Dr. Sangeeta Joshi, Electronics Engineering Cluster Mentor – Basic of VLSI	Dr. Girish Gidaye, Electronics Engineering Member - AMVLSI	Dr. Arun Chavan HOD - ETRX

Sr.No	Event Name	Date	Speaker/Coordinator	Attendees
1.	**Voyager-2022 CODEAGER**	10 April 2022	-	38
2.	**Voyager-2022 Webinar on Metaverse: Career & Future**	9 April 2022	**Mr. Navin Manaswi**	84
3.	**Voyager-2022 Webinars on XR and Cloud Computing**	3 April 2022	**XR – Mr. Avi Dwivedi Cloud Computing – Ms. Jeevantika Lingalwar**	XR – 74 Cloud - 110
4.	**3.JS Workshop**	2 April 2022	**Mr. Adwait Godbole & Mr. Pavan Metkari**	70
5.	**Voyager-2022 Webinar on Computer Vision**	27 March 2022	**Mr. Naman Bhayani**	89
6.	**Voyager-2022 SHARK TANK**	26 March 2022	**Mr. Sagar Ranshoor, Mr. Ritesh Shergill, Mr. Pankaj Sikka and Mr. Pratik Mishra as sharks**	65
7.	**Voyager-2022 Into the Jumbleverse**	20 March 2022	**Ms. Krutika Jagtap & Ms. Freny Babaria**	63
8.	**Voyager-2022 Workshop on Power of CMD**	19 March 2022	**Mr. Jay Keer & Mr. Gaurang Kalyankar**	107
9.	**Voyager-2022 Techloop**	13 March 2022	**Ms. Sejal Mahurkar, Ms. Mallika Chourasia & Ms. Avani Shinde**	49

10.	**IRIS 2022**	13 February 2022	**Major General Vikram Dev Dogra**	95
11.	**IRIS 2022**	12 February 2022	**Mr. Mohammad Shams Aalam Shaikh**	95
12.	**IRIS 2022**	6 February 2022	**Mr. Abhijeet Yadav**	127
13.	**IRIS 2022**	5 February 2022	**Padmashri Popatrao Pawar**	145
14.	**IEEE Day Celebrations - Know your Technopreneur**	10 October 2021	**Joint venture with IEEE-RAIT**	98
15.	**Webinar on Data Science**	3 October 2021	**Mr. Krish Naik**	112

Javed Patel

IEEE-VIT Convenor

EESA HACKATRONICS ACTIVITY 3 REPORT EVEN SEM 22

Activity name	EESA HACKATRONICS
Activity Details	13-02-2022
Activity Venue	MS Teams
Activity Coordinator	Convener and Chairpersons
Target Audience	FE, SE, TE and BE Students
Objectives	Showcasing skills of students and to establish the idea sharing and creativeness driven by enthusiasm towards a shared goal.
Description	The event was a 12-hour long Hackathon. It started with an Inauguration ceremony which was hosted by Ms. Khooshi Tembhurne from the Publicity workforce of EESA. The host welcomed our Convener, Prof. Rakshak Sood who gave a motivating speech to all the participants. The committee also welcomed the professors and alumni as the judges for the event. Each participating team gave their best throughout the day and showed utmost fighting spirit till the very end. There were 3 judging rounds throughout the event, where the judges checked the progress of every team. By the end of the day, the judges did their final checking of the projects which were presented by the teams. The projects belonged to the different domains like Embedded Systems and IOT, Computer Vision, Robotics and VLSI. The event was concluded by the vote of thanks proposed by the host of the event and a few words by the Convenor of the committee.
Attendees	Number of Judges: 5 Number of Teams: 15 Number of Participants: 56 Number of Volunteers: 15 Total: 76

	POSITION	TEAM NAME	TEAM MEMBERS	YEAR
Winners & Runner's up	**WINNERS**	**KrishiTechConnect**	Pratiksha Jain	BE
			Pratibha Yadav	BE
			Saurabh Lengare	BE
	1st RUNNERS UP	**FRAMS**	Rajat Amate	SE
			Sakshi Indulkar	SE
			Amruta Gulekar	SE
			Krunal Badgujar	SE
	1st RUNNERS UP	**Alpha Coders**	Yogesh Yewale	TE
			Dhanshree Patangrao	TE
			Kaushal Joshi	TE
			Kaveya Sivaprakasam	TE
	2nd RUNNERS UP	**Tech Titans**	Mohammed Hasnain Rakhangi	TE
			Yash Mourya	TE
			Pallavi Shitole	TE
	2nd RUNNERS UP	**Angry Nerds**	Sahil Baikar	SE
			Shubham Bochare	SE
			Atharva Das	SE

Photographs
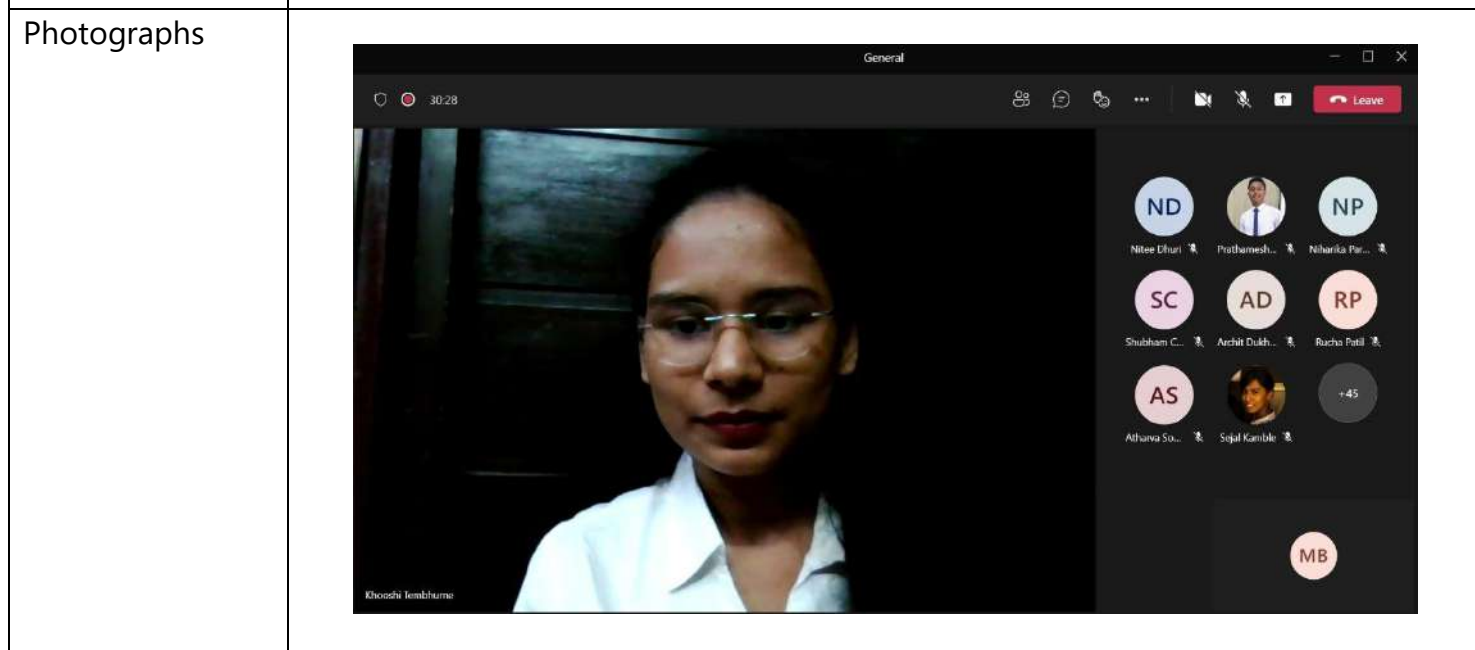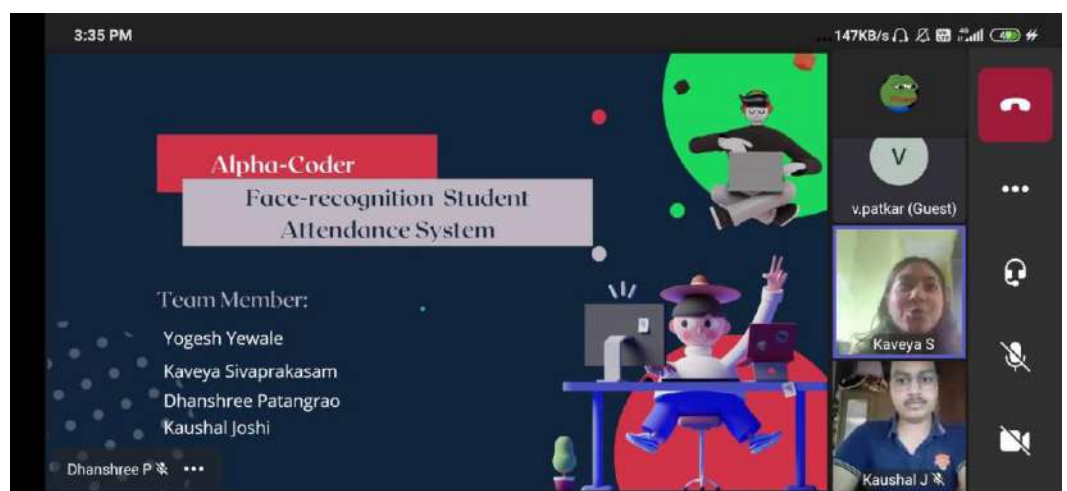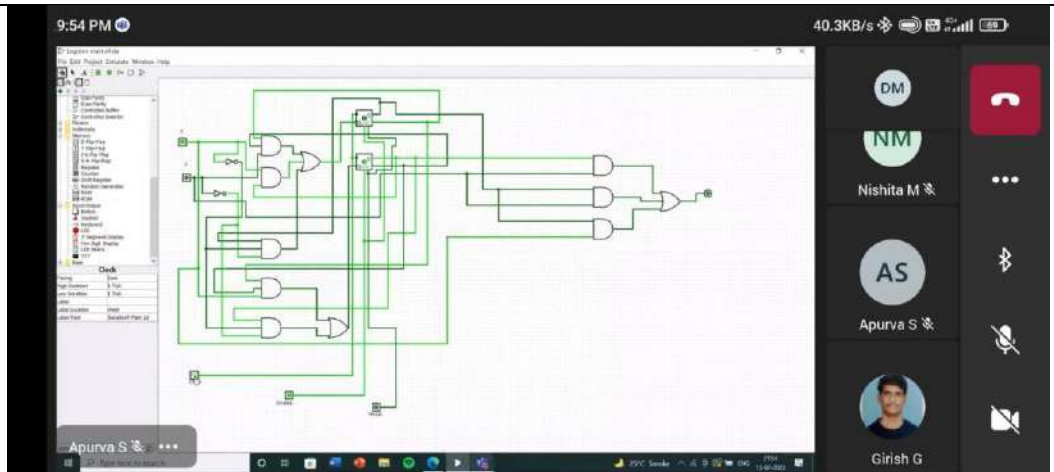
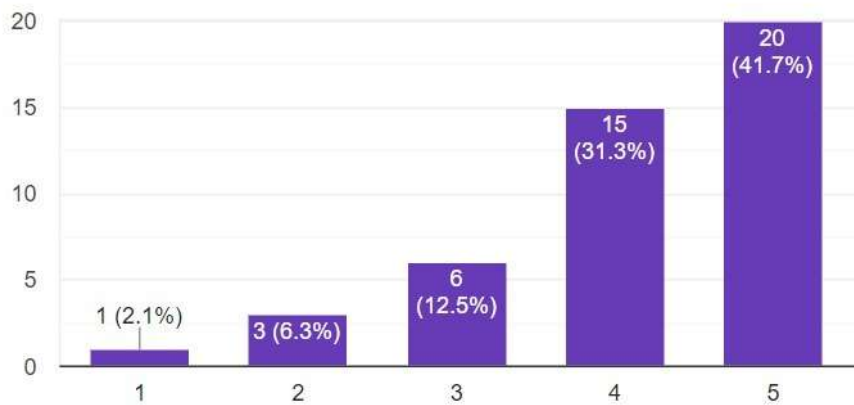|	
Feedback	Rate the quality of the event

48 responses

Suggestions/Appreciations/Feedback

48 responses

No suggestions, only appreciations Thankyou for arranging such events TBH students need such kinda events to develop there thinking ability.

very well conducted!

Good work guys!!

Nice work

Thank you EESA committee !!

Nice event

Nice experience

Great job guys, THANKYOU. |

How was your experience about the event?

45 responses

It was nice and most productive Sunday.Got experience and event was fun.

It was great event.

It was awesome. Got a chance to learn such intresting stuff.

Get best experience related to hackathon and Learn many things

Great
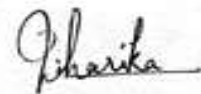
It was very nice, its been a while since my endurance and my brain has been tested for 12 hours xD. I wish the volunteers were less over worked tho :(. or getting benefits.

We meet and collaborate, solve problem, share skills and learned to complete projects in given time....it was fun. Looking forward for more such opportunities.

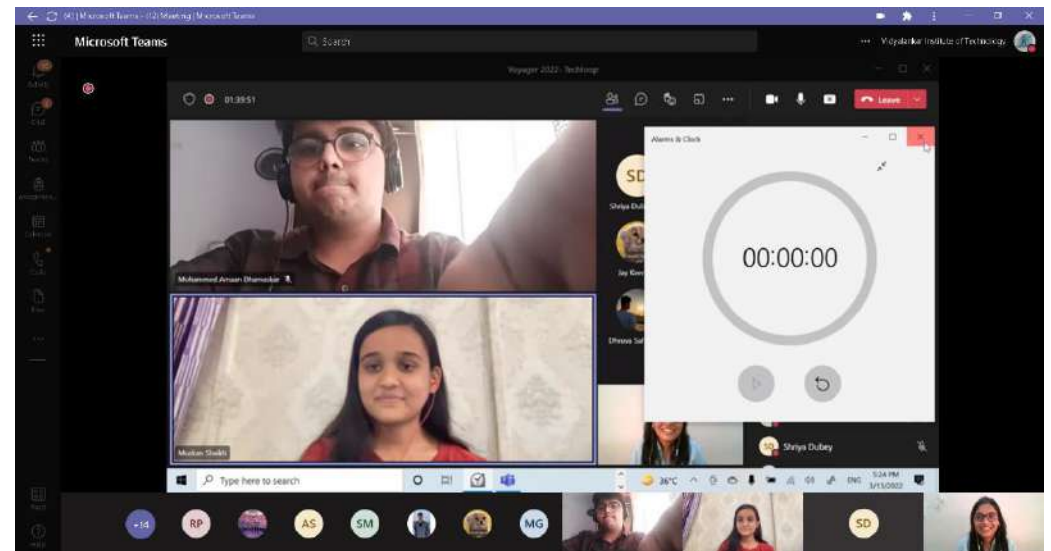It was very informative and fun but 12hrs is a long time

Prof. Rakshak Sood

Convener, EESA

Niharika Parab

General Secretary

Name of institute:	Vidyalankar Institute of Technology
Committee Name:	IEEE-VIT
Activity Title:	VOYAGER-Techloop
Activity date, time and venue:	**Date:** 13th March 2022 **Day:** Sunday **Time:** 4:00 PM to 5:30 PM **Platform:** MS Teams, QUIZIZZ
Activity Conduction Report:	• The event was started at around 4:15 pm. The hosts for the event were Ms. Mallika Chourasia, Ms. Sejal Mahurkar and Ms. Avani Shinde. The Hosts welcomed the audience and participants and briefed them about IEEE Committee and Voyager. • The hosts then went on to explain the rules and instructions of the game. • Round 1 was <u>Trial by Trivia</u>. This was a quiz conducted on the platform QUIZIZZ. • A total of 20 participants participated in this round. Players joined the game with a username in the format [Name_Surname]. • This round was very interesting as the was constant competition among the participants to top the leader board. Every participant who participated in round 1 was promoted to play the next round. • Round 2 was <u>PICFLICK</u>. This round was an elimination round, and the top eight participants from this round proceeded to play the final round. • The 3rd and final round was <u>BLUFF</u>. This round had a total of 7 knockout matches between the top 8 participants from the previous round. • The finalists were asked to turn on their camera and mic and were requested to show both their hands in front of the camera to avoid foul play. • The winner of the event was Mr. Amaan Dhamaskar and the runner-up was Ms. Muskan Shaikh. • A vote of thanks was given by Mallika Chourasia.

	Attendance / response				

No. of workforce	No. of Core	No. of students	No. Of Faculty	Total
6	12	31	0	49

Further scope / continue this activity?

- Virtual platform-based competitions are giving better experience and entertainment to the participants.
- This competition was very informative and knowledge-enriching for the participants.

Outcome

- This event will encourage the students to take part in many quizzes and fun games in the future.

Glimpses from the webinar

Approval by Convenor- Prof. Javed Patel	
Feedback Responses	Rate the event Copy 8 — 8 (100%) 6 4 2 0 (0%) 0 (0%) 0 (0%) 0 (0%) 1 2 3 4 5
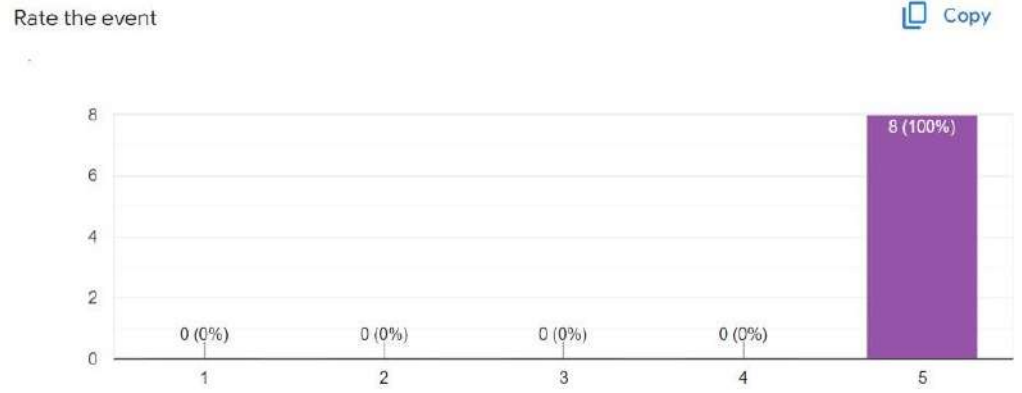
VIBES

VIT Vidyalankar Institute of Technology www.vit.edu.in Accredited A+ by NAAC

WHAT'S INSIDE

Vision :
To be a globally recognized institute where learners are nurtured in a scholarly environment to evolve into competent professionals and researchers to benefit society.

Mission :
Evolve a curriculum which emphasizes on strong fundamentals with the flexibility to choose advanced courses of interest and gain exposure to tools and techniques in contemporary subjects.

Encourage a teaching-learning process in which highly competent faculty share a symbiotic association with institutes of repute.

Facilitate creation and dissemination of knowledge through a digitally-enabled learning environment.

Develop academic and infrastructural facilities with modern equipment and other learning resources and encourage reciprocal sharing with other institutes through networking.

Establish a Centre of Excellence to enhance academia-industry partnership and work on collaborative projects.

Prof. Varsha Bhosale
VICE-PRINICIPAL

I welcome all the students of UG and PG courses on the Campus for the academic year 2022-23. I am happy to mention that Vidyalankar Institute of Technology has been granted Autonomous status from UGC and University of Mumbai from the A.Y. 2022-23 to 2031-32. Another milestone to share with all readers is that the Under graduate Courses in Information Technology and Computer Engineering are accredited by National Board of Accreditation for three academic years. I would like to thank all the students, parents and stake holders for supporting us in this achievement. I wish all the students a very happy learning!

Congratulations to Ms. Aradhana Rai!

Ms. Aradhana Rai
Department of Computer Engineering
Batch of 2022
CTC offered : 27 LPA

Student placed in
Google

TCS pre-placement session for BO 2023 starts with vigour! The Orientation session was conducted by TCS on 08 June, 2022 for the Graduating Batch of 2023 to give an overview on the Company process & policies followed by their selection process. The speakers were - Mr Gaurav Ghelani - Regional Manager; along with team members Ms Uttara Nair & Ms Purvi Chauhan. .

Webinar on Gender Sensitization

A Webinar on "Gender Sensitization" was conducted on 23 April 2022 by the Women Development Committee & Internal Complaints Committee. It helped in understanding the importance of Psychiatric aspects of gender sensitivity and raise awareness of gender equality concerns. The esteemed speaker: Webinar on "Gender Sensitization" by Dr. KK Sunitha, LLM, PhD Law who apprised about Gender Sensitivity and general information about Law and Gender Justice.
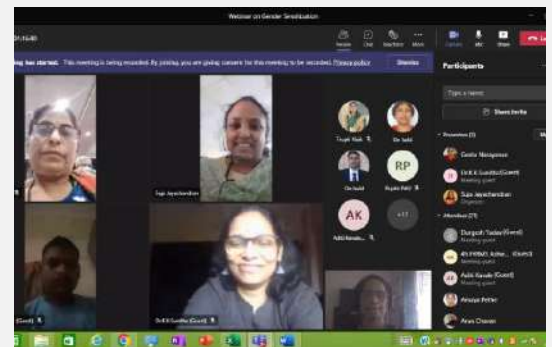
NSS Activities

Several outreach activities were conducted by NSS like Orphanage Teaching on 26 June 2022; Polio Vaccination Activity on 19 June and Stray Shelter Feeding on 21 April 2022.

Student Council Activities

शिवस्वराज्य दिन

विद्यालंकार इन्स्टिट्यूट ऑफ टेक्नॉलॉजी, मुंबई आयोजित

छत्रपती शिवाजी महाराज शिवराज्याभिषेक दिवस २०२२
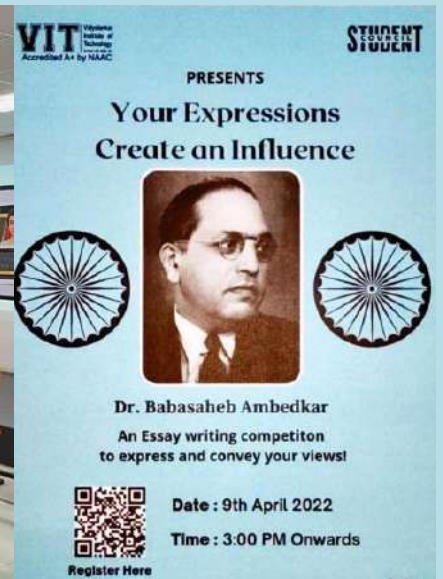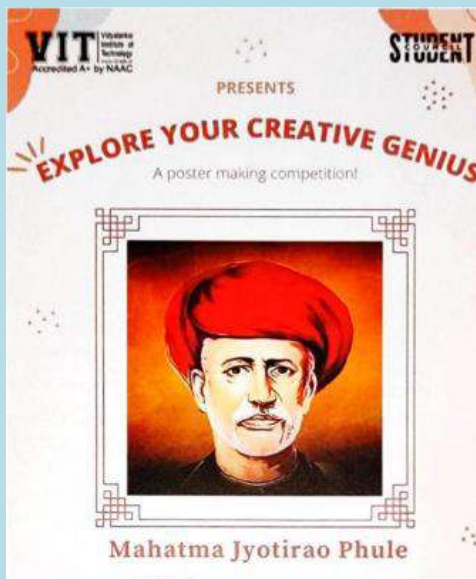
Date: 06 June 2022
Time: 11:00 AM

The Student Council of Vidyalankar Institute of Technology celebrated the International Yoga Day 2022 with great vigour and enthusiasm. Mr. Prakash Shelke & Mr. Sanjay Gore were the instructors for the event. "Shivswarajya Din" was celebrated on 06 June 2022, that marks 348 years to the coronation ceremony of the great Maratha king Chhatrapati Shivaji Maharaj. A special video screening of our Hon. Prime Minister, Shri. Narendra Modi Ji conducting the yoga session at Mysuru Palace was also streamed for the participants. During the latter part of the session, "Surya namaskar" one of the popular stances of Yoga was performed and the session ended with chants of "Om" and some breathing exercises.

Equal Opportunity Cell Activities

PRESENTS

EXPLORE YOUR CREATIVE GENIUS

A poster making competition!

Mahatma Jyotirao Phule

PRESENTS

Your Expressions Create an Influence

Dr. Babasaheb Ambedkar

An Essay writing competiton to express and convey your views!

Date : 9th April 2022
Time : 3:00 PM Onwards

Register Here

The Literary Council in collaboration with the Equal Opportunities Cell of Vidyalankar Institute of Technology exhibited multi-faceted events, a poster exhibition event to commemorate the power of women warriors titled "Celebrating Courage" on an inspiring and new theme : "Women Warriors & Social Reformers in the Indian Freedom Struggle". An essay writing competition titled 'Your Expressions create an Influence' as an act of gratitude to pay homage to Bharat Ratna, Dr. Babasaheb Ambedkar on his birth anniversary through the power of words. Hanesh Iyer, Pushpanjali Jha and Sachin Kadam were the winners of the competition. A Poster Making Competition titled 'Explore Your Creative Genius,' as a tribute to Mahatma Jyotirao Phule on his birth anniversary was organised on 9 April 2022. The main objective of conducting this competition was to enable participants to showcase their artistic proficiency and to emphasize the rich legacy of Mahatma Jyotirao Phule. Aditi Datekar and Amey Yadav were the winners of the Poster Making Competition.

Degree Distribution Ceremony for Batch of 2020-21

The Degree Distribution Ceremony for the batch of 2020-21 was organised from Monday April 4, 2022 to Saturday April 9, 2022... A total of 690 students from six branches attended the ceremony. All the invitee students were awarded the Degrees conferred on them by the University of Mumbai. This year, under the aegis of the Prof. C S Deshpande Memorial activities, a topper from each branch was awarded the silver medal, to celebrate extraordinary talent and exceptional academic achievement.

Graduation Day for Batch of 2022

Vidyalankar Institute of Technology had organised the Graduation Day Program for the batch of students graduating in 2022 The esteemed guest for this event was Dr. Nitin Tike, Senior Manager, Institute Collaboration, National Institute for Securities Markets, Government of India. This event was attended by 750+ students of the graduating batch of 2022.

> " Life is like riding a bicycle. To keep your balance, you must keep moving.
> -Albert Einstein "

DIGITVERSE

Department of First Year Engineering in association with Tata Consultancy Services organised Poster Making Competition and an Expert talk by the TCS experts named as "Digitverse". The analytical and the creative skills were manifested in their creative posters made using latest trends including doodle. The top five winners were awarded with goodies. The posters were unique as many had QR code which was linked to the website of informative resources which enhanced their research oriented mindset.

Faculty Achievement

- Dr. Micky Barua from the Department of Humanities in the First Year Engineering completed the Ph.D. Programme in English from University of Mumbai.
- The team of students led by Aniket Ambore mentored by Dr. Micky Barua have qualified for the national level Smart India Hackathon 2022.
- Dr. Micky Barua completed with certification the Universal Human Values-Part II FDP (Refresher Course) organized by AICTE from 20 June to 25 June 2022.

Ideathon Competition

VIT's Department of First Year Engineering had organised Ideathon – a competition to celebrate skills related to problem solving and creative thinking held on 6th June, 2022 in the VIT campus. It was a short, intensive, workshop-like experience for students to address some of the most pressing challenges of the time.

Student Speaks

Avinash Dhiran,
FE Electronics and Telecommunication Engineering

My Holistic Progress in FE!

It seems only yesterday when I joined VIT and now my First Year is coming to an end. For me, Engineering Graphics was a completely new subject that led to think on the perceptions of an object and strengthen my imagination. Also, the subject of Professional Communication and Ethics played an important role in moulding my personality. Pre-Verve events provided a platform for portraying my talents. Intra-debates helped me develop my debating and oratory skills. 'Freshers' helped me overcome my stage fright. Being a part of 'BEATBREAKERS', imbibed in me the spirit of team work and confidence. Participating in various sports helped me to learn team building. When we were taken for a campus tour of our college, I was overwhelmed to witness the best infrastructure.. Different competitions were also held in our college like Ideathon, CanSat and Digitverse to name a few. I would forever cherish the memories of the First Year of my engineering journey.

> " The only time you fail is when you fall down and stay down. "
> -Stephen Richards

ITSA : Workshop on Deveops

Learning about DevOps is valuable to developers at any level and helps developers of all levels to advance in their career. DevOps helps teams to break out of their silos, work together, and deliver more consistently, efficiently, and securely. The Workshop was conducted by Ms. Sayali Tambe who apprised about Docker and Kubernetes. and the change it has brought about in the technical domain with hands-on demonstration.

Student Speak

NUPUR SAWARKAR, BE INFT DIV B (BATCH 2018-2022)

One of the most exciting and empowering times in a student's life is the college phase and I am grateful that I experienced this phase at VIT. With the motto of 'Student First', VIT is committed and abidingly working towards providing a holistic learning environment. The fact that VIT always organizes guest lectures and value-added courses for students to help them learn more and introduce them to the latest emerging technologies was very appealing to me. During the pandemic, all of us adapted to a new way of learning, and so did VIT. In my experience, the transition from offline to online mode of learning was made quite easy without compromising on the learning process. Even in the virtual mode, many engaging webinars, virtual guest lectures were conducted to keep us motivated, as well as it provided us with numerous free online courses which proved to be very helpful.

Know an Alumnus

ASHUTOSH ENGAVLE, (BATCH 2015-2019)

Education is an investment made for the future, and VIT was one of the best investments I have made in my life. I have learned many things from VIT, not only technical but also soft skills, which are usually neglected but are equally important. The support from the faculty and staff was tremendous while doing my degree and even after it. I could connect to any faculty member and they would solve my doubts and be available to talk as friends rather than teachers. Many other activities such as seminars, workshops, and cultural fests were organised to enhance the student experience, knowledge and also gave me a boost in confidence, which has helped me a lot in my professional life. Without my experience at VIT, I couldn't have imagined landing such a fantastic job in a reputable multinational corporation. I am very thankful to VIT for the wonderful 4 years and for a lifetime's worth of connections.

> " The secret of change is to focus all of your energy, not on fighting the old, but on building the new. "
> -Socrates

Hands-On Workshop on IoT

The Department of Computer Engineering, Vidyalankar Institute of Technology in association with Grok Learning Pvt. Ltd. organized 2-Days Hands-on IoT Applied Learning Workshop. The speaker of the event was Mr. Nitin Komawar, Director of Grok Learning Pvt. Ltd on 9th and 10th June 2022. Mr. Nitin Komawar introduced Grok IoT platform, and discussed how to build an IoT application on it. The team of experts discussed various sensors like motion, temperature, moisture, and their real-time application. They demonstrated how to build a Home Security using a Camera on their Grok IoT platform. The Guest Speaker also demonstrated how they have built different applications on Grok IoT Platform like Smart Agriculture, Hydroponics, Smart Door Lock, Smart Fan, Smart ink Mixer, and Smart hand Sanitizer Dispenser.

Internship Opportunities Workshop

The Department of Computer Engineering organized a seminar focusing on the internship opportunities. The speaker of the event was Mr. Vinit Jain, CEO & founder Antennae Ventures. The event began with the importance of project & internship. He further explained the benefits of coding and tricks to improve the programming skills. The speaker had shared upcoming internship in various areas. The session was open to the audience to clear their queries. By the end of the session the students had a good basic idea about the internship and start-ups. The examples given by the speaker were very relatable and easy to understand. The seminar was an interactive and motivational session.


My journey started in 2014, I was a small-town girl when I took admission in Vidyalankar and I can say that VIT provided wings to my dreams. The campus, the professors and the fellow students, they boosted my confidence and helped me become what I am today. The best thing about my journey at VIT were the professors, their acumen in the subjects and the way they treated me. It made me feel very confident in whatever I did. Today I've successfully established myself as a Software Engineer working for a Leading Gaming Company in United States and VIT has played a major role in shaping my career. It's always nostalgic whenever I visit Vidyalankar campus or speak to any of the professors. I am thankful to all the faculty members; who pushed me harder to achieve my goal and at the same time gave all the support in any means whenever I needed. Thanks to VIT!

Know an Alumnus

Shweta Mahajan
Graduating Batch 2017
Software Engineer
Draftkings, USA

Guest Lecture by IETE
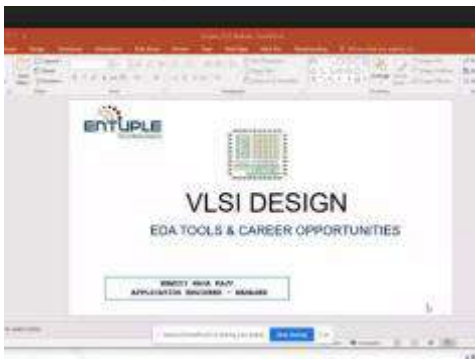
The guest lecture conducted on 9 April under the aegis of IETE apprised about the functioning, execution, and overall software of various EDA Tools, design system engineering software for applications to design hardware and data insights along with learning viable career prospects provided by the domain of VLSI. The guest lecturer was Mr. Mamidi Nagarju. Participants got acclimatized with the setup, control, functions, execution, and core concepts which would enhance their projects & elevate their significance.

Webinar on Higher Studies

A Webinar by ETSA in association with Career Counselling Committee was conducted on 25 June 2022 wherein the speaker, Mr. Tanay Patel, an alumni from Arizona State University, gave insights on pursuing MS and its preparation.

Another Webinar by ETSA was conducted on "Psychology Test" in Indian Navy on 16th April 2022 by an alumnus of our institution Aditya Arun Chavan. The webinar started by his introduction and his interest in the Indian Navy followed by his explanation of the procedure on psychology tests which is a part of SSB interview.

Know an Alumni

Akanksha Samuel
Senior Analyst-Cyber Security
Nangia & CO LLP

"Enjoy the little things, for one day you may look back and realize they were the big things"
- Robert Brault

With profound love, I would like to thank VIT for what I am today. The teaching and non teaching staff have always strived hard to mould us. Even in the amidst of COVID -19, VIT stood for us to get the best placements. I wish I could go back to those 4 years where life was best in VIT. Truly VIT has been the best turning point of my life. VIT is a family for me and I am glad to be a part of it.

Achievements of Dr. Saurabh Mehta

1) Contributed as a Reviewer in the second international conference on automation, computing and communication conducted virtually on April 7-8, 2022 and organized by Ramrao Adik Institute of Technology, DY Patil Deemed to be University, Navi Mumbai.
2) Two STEM projects completed under funding from IEEE Bombay section and two copyrights are granted in software category.
3) PR.Bapat outstanding volunteer award for the year 2021, IEEE Bombay section.
4) Received a fellowship to complete IEEE Professional course.

IEEE-VIT VOYAGER

EESA
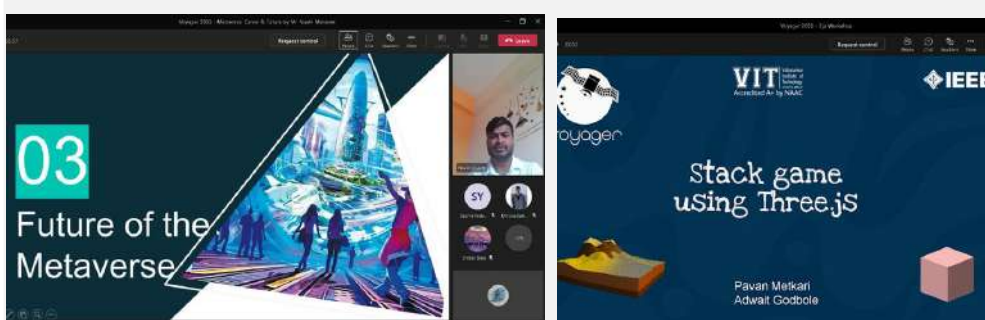
A series of workshops and technical talks were conducted under Voyager Activities. 3.js Workshop was conducted on 2 April 2022 wherein Mr. Pavan Metkari and Mr Adwait Godbole covered a basic explanation of HTML, CSS, and JavaScript, various libraries in JavaScript like 3.js, jQuery, etc. XR Genesis was another event wherein Mr. Dwivedi explained how the metaverse works and how augmented reality plays a big role in the betterment of metaverse. Tech Talks on Cloud Computing and Metaverse: Career and Future were conducted on 3 and 9 April.

Beyond the Horizon had the main objective to highlight the topics related to getting into Indian navy and financial management. Beyond the Horizon consisted of 2 webinars, Sailing Towards Success was the first webinar which was dedicated to Navy and the journey shared as self reflections by the retired naval officer Lt. Cdr. Bijay Nair.

Virtual International Conference

The International Conference on "Advances of Electronics and Computer Technology (ICAECT-2022) held on 7th and 8th April focused on recent trends in the fields of Electronics and Computer Technology. The objective of the conference is to serve as an excellent forum to facilitate interaction for an intellectual exchange of ideas among academia, industry and research personnel, standard developers, and practitioners in the fields of Electronics Engineering and Computer Technology. Total 40 papers were presented at the conference.

The second speaker Mr. Amanpal Singh Chawla gave some valuable advice about financial planning. He also gave some valuable tips and methods one should follow so he/she won't have to face any financial problems after their retirement.

> " The greatest glory in living lies not in never falling,
> but in rising every time we fall.
> -Nelson Mandela "

Higher Studies Update (2022 Batch)

Ishan Vatsaraj
John Hopkins
M.S.

Sanika Thakur
Northeastern Uni.
M.S.

Vedant Shirsekar
IIT Bombay
M.Tech

Mamta Padmashali
IIT Madras
M.Tech

Jay Hegshetye
IIT Madras
M.Tech

Know an Alumna

Ms. Pranita Mahajan (2010 Batch)

Pranita Mahajan is an alumna of VIT , passed out in the year 2010

from the Biomedical Engineering Department (2010 Batch)

My overall experience is into technical and repairs of medical devices, projects for medical devices planning, procurement, installation, and operations management of Biomedical Department. We were the first batch to pass-out from the college, it was a good learning and knowledge sharing education curriculum rather than typical lectures. All the professors were knowledgeable and supportive; they guide the students at every point which makes the learning very interactive and enjoyable. We had internship as part of course structure in the seventh semester and our professors along with placement cell had played a major role to ensure that each student of the Biomedical department is getting placed for internship so as they gain as much practical knowledge as possible.

I would say you all have taken a good decision by enrolling yourself in VIT for four years Biomedical engineering program. Make use of the facility and the faculty to the fullest. During your course tenure make sure you are getting involved in most of extra-curricular activities which helps to build your personality. Make sure you undertake internships, attend webinar sessions, interact with past alumni of the department and enrol for short term certificate courses. Explore different verticals of healthcare like projects and hospital planning, medical coding, medical regulatory affairs, operations management and many more, this will help for your career growth.

In case of any help, you can reach me through mail: pranita.mahajan@yahoo.in

" Tell me and I forget !! Teach me and I Remember !!
Involve me and I learn !!
-Benjamin Franklin "

VALUE ADDED COURSE: iBizSim BUSINESS SIMULATION

The Department introduced a course of Business simulation iBizSim for its 1st year MMS students. The Business simulation was a hands-on, interactive learning experience that covered all aspects of manufacturing products and marketing them internationally. Dr. Ashok Ullal, the chief developer of iBizSim simulation had conducted the sessions for students. He is Professor Emiritus and Former Dean, School of International Business, Reutlingen University, Germany.

Fire Side Chat with Dr. Abhijit Mate

On 28th June 2022, Prof. Manoj Karnik arranged a fireside chat, an interactive discussion with Dr. Abhijit Mate to gain insights into basic working of UK NHS and opportunities offered. Dr. Abhijit Mate has worked in NHS in UK since 1997. Currently he is Senior Consultant Physician in UK.. Dr. Mate is associated with India with community projects for patient with Leprosy on the out-skirts of Mumbai. He had an informal chat with students of MMS and Biomedical on understanding the role technology and management is playing in healthcare services.

Convocation Ceremony-MMS Batch of 2020-21

The Convocation ceremony for the batch of 2018-2020 and 2019-2021 was held on 9th April and 21st May 2022 respectively. The graduating students from both the batches were very excited to celebrate this milestone of their lives. Frontline Covid warriors such as task force doctors, senior bank officers graced the ceremony as chief guest to award the Degree Certificates to students. The chief guests Mr. Kishor Parab, Senior Police Inspector and Lieutenant Colonel Manish Chitnis motivated the students to not to forget their value systems, work ethics and humanity. Ms. Sayali Kalyankar (Batch 2018-20) and Ms. Kiran Pawar(Batch 2019-21) being awarded the coveted Prof. C S Deshpande Memorial Silver Medal to celebrate extraordinary talent and exceptional academic achievement.

UPCOMING EVENTS

- CSI WILL HOST A NATIONAL CONFERENCE CYBERFRAT IN SEPTEMBER 2022
- DEPARTMENT WILL CLUSTER MENTOR WORKSHOP FOR A.Y. 2022-23 IN JULY 2022
- TOPPER'S FELCITATION WILL BE ORGANIZED IN AUGUST 2022
- INTERNATIONAL CONFERENCE ON SIGNAL AND INFORMATION PROCESSING AT COLLEGE OF ENGINEERING PUNE ON 25TH AND 27TH AUGUST 2022
- INTERNATIONAL CONFERENCE ON ANALYSIS, INVERSE PROBLEMS AND APPLICATIONS AT IIT CHENNAI ON JULY 18TH TO 21ST JULY 2022

> " Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world.. "

-Harriet Tubman

THE
EDITORIAL TEAM

Dr. Micky Barua
Chief Editor

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