ALOK INDUSTRIES LIMITED

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ALOK
INDUSTRIES LIMITED
™ INNOVATIVE TEXTILE SOLUTIONS

1st May 2021,

CERTIFICATE

This is to certify that **Mr. Akshat Ajay Shirsat**, student of **Bachelor of Engineering in Electronic and Telecommunication**, Lokamanya Tilak College of Engineering, Mumbai University, has undergone Practical Training from **20th March, 2021 to 1st May, 2021 (04 Week)** in **Alok Industries Ltd., Vapi.**

During the above Practical Training period, he had an opportunity to observe & study the **Department of Information and Technology Alok Industries.**

He was regular and sincere during his stay with us.

We wish him success in his future career.

For Alok Industries Limited

Authorized Signatory

ISO 9001, ISO 14001, ISO 18001
Certified Company

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e-mail : info@alokind.com Website : www.alokind.com

A Report of Internship

at

Alok Industries limited

Submitted by

Akshat Ajay Shirsat

in partial fulfillment for the award of the degree

of

Bachelor of Engineering

in

Electronic and Telecommunication

Lokmanaya Tilak College of Engineering

Mumbai University

March 2021

Certified that this Report of In-Plant Training at

" Alok Industries Vapi "

Being submitted herewith is the bonafide work of

" Akshat Ajay Shirsat "

who carried out the Internship under our guidance and supervision.

S.G. Patel.

Sanjay Patil   Hetal Desai

(IT Admin)   (IT HOD)

Department of Information and Technology

Alok Industries

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Amit Thakur

(IT Admin)

(IT HOD)

Department of Information and Technology

Alok Industries

ACKNOWLEDGEMENT

I would like to express my special thanks of gratitude to my In-Plant Training guide Sanjay Patil, Head of the Department Hetal Desai who gave me the opportunity to do this wonderful in-Plant Training at Alok industries Limited, which provided me an opportunity explore the new horizons.

I sincerely express my gratitude towards the Alok industries Limited for providing this opportunity.

Secondly I would also like to thank my parents and friends who helped me a lot in finalizing this report within the limited time frame.

Date :- 5th May, 2021   Akshat Ajay Shirsat

Place :- Vapi, Gujarat   Alok Punching no. :- 14393

College ERP - ID   :- 180600345

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1. INTRODUCTION

The Lokmanaya Tilak College of Engineering at the Mumbai University, requires its students to undertake an industrial training, referred to as an internship/ professional training program in a technology related environment, as a requisite for the partial fulfillment of a Bachelor Degree with Honors in Electronics & Telecommunication .This internship was performed in the Information & Technology department of Alok Industries Vapi, Gujarat under the Guidance of IT HOD Hetal Desai. As the name technology implies, for an intern, the technology department is unique in the area of technical or practical knowledge. This is so because the knowledge and skills acquired from the university need to be put in a practical sense of the real world, otherwise these skills and knowledge would be useless as a student wouldn't know how to apply them in the work place.

Therefore I thought of pursuing an internship at a reputable organization with modern Information Technology practices in the name of Alok industries Vapi. The Human Resource Department of Alok recommended and gave me an internship place with the IT department from date 20th of March 2021, to the 30th of April 2021, a period approximately four weeks.
During the four weeks training, I was attached to four major sections of the IT department at Alok. These include;
1. Information Technology Infrastructure
2. Building Alok network virtually
3. Software used & there installation
4. IT Support & Help

Therefore, this document details the training modules during the four week period in the above sections of the Technology department. It is also worth noting that the training wasn't just restricted to the above schedule. All the Personnel in the Technology department were friendly and eager to help me as an intern in one way or the other. This was evidenced by the training and knowledge sharing conducted by those whose sections were not included in the above schedule. This hence provided the opportunity of learning outside the boundaries defined by the above schedule

2. COMPANY PROFILE

2.1 : Alok Industries limited

Alok Industries Ltd is one of the leading textile group and amongst the fastest growing vertically integrated textile companies in India. They offer world class integrated textile solutions. They manufacture world-class home textiles apparel fabrics garments and polyester yarns selling directly to manufacturers exporters importers retailers and brands the world over.

The company is having their manufacturing facilities at Silvassa in Dadra & Nagar Haveli Thane and Navi Mumbai in Maharashtra and Valsad and Vapi in Gujarat.Alok Industries Ltd was incorporated in the year 1986 with the name Alok Textile Industries Pvt Ltd. The company commenced their activities with the manufacture of texturised yarn by setting up manufacturing facilities at Silvassa. In the year 1991 they commenced weaving operation at Bhiwandi in Thane. In the year 1993 they became a public limited company. In the year 1994 the company expanded the weaving capacity to 50 cimmco looms in Thane and texturising capacity of 3 Nos Texturising machines in Silvasaa.In the year 1995 they made a technical collaboration with Grabal Albert Grabher Gesellshaft mbH & Co of Austria for manufacture of embroidered products through a joint venture company named Grabal Alok Impex Ltd. In the year 1998 the company modernised and expanded the weaving division with 24 Sulzer Projectile Looms at Silvassa. Also they completed the modernization and expansion of weaving project with the processing project with 2 Stenters at Vapi in the year 2003. In the same year they

set up a Garment Unit at Navi mumbai. They forayed into Home Textiles for direct export. In the year 2006 they set up a new plant for knitted fabric at Vapi in Gujarat and Partially Oriented Yarn plant at Silvassa.The company was awarded Silver Trophy for fabric exports and Bronze Trophy for made-ups exports by Texpocil for the financial year 2006. Also they got award from the All India Exporters Chambers in recognition of role played by the company in the development of exports of 'made ups'. They have got Certificate of Excellence by Kohi's Department Stores for partnership and teamwork. They have also got Supima license for use of their cotton in manufacture of woven and knitted fabrics.

2.2 : Alok Industries , Vapi

Alok has their manufacturing facilities at Silvassa in Dadra & Nagar Haveli, Thane and Navi Mumbai in Maharashtra and Valsad and Vapi in Gujarat. I got the opportunity to join and gain experience at Alok Industries Vapi Gujarat as I joined the company as IT Department Intern on 20th March 2021

2.3 Department Profile

Alok Industry Vapi, has a dedicated Information Technology department under their Admin department. The IT department has many vital jobs for smooth running of a big production organization like Alok. They have to set a communication Network between different department separated by geographical distance and develop and adopt information system and administer the IT infrastructure. Other than that they are also responsible for managing and protection of information technology and managing and protecting data resource and system application which includes backing up company data and installing required security software on the company server They also built and manage the company communication network via computers and via telephone.

Giving technical support and help and maintaining the company website which includes personal website for the employee and global website for there users to use are the other responsibilities of the IT department

3. INTERNSHIP EXPERINCE

3.1 : Network and Server of Alok Vapi

IT Infrastructure refers to the combination of hardware, software, network resources and services required for the existence, operation and management of the company's information Technology environment
.
In Alok Vapi, the IT Infrastructure section focuses on aligning IT services with the needs of production. The section manages a number of servers and storage infrastructure which are accessed by the employees over the network infrastructure. This infrastructure is designed and implemented in a way that it makes the whole idea become a unified system like a box where all the department are connected.
With the above practice, it is worth mentioning that Alok Vapi has a convergent system and IT Infrastructure.

The task that IT team at Alok performs are the need to maintain, upgrade and manage the IT infrastructure of a the organization as well as a help desk team that trains new users of the infrastructure and as well trains users on new technology.
They ensures that all the Alok employees have their technology gadgets just at their table.

Networking Computers

Multiple computers are connected together to form a network where they can share resources and information. Networking devices like cables, routers and switches and protocols found in the OSI model make computer networking realizable. In the training, two of the most popular networks created include;

Local Area Network LAN

A local area network (LAN) is a group of computers and associated devices that share a common communications line within a distinct geographic area such as an

office or a commercial establishment.A local area network may serve as few as two or three users (for example, in a small-office network) or several hundred users in a larger office like the Alok Vapi Office where each department has its own LAN network example, Bleaching Department LAN or Printing Department LAN. LAN networking comprises of cables, switches, routers and other components that let users connect to internal servers, websites and other LANs via wide area networks.

Ethernet and **Wi-Fi** are the two primary ways to enable LAN connections and both are used in Alok office. Ethernet is a specification that enables computers to communicate with each other.
Wi-Fi uses radio waves to connect computers to the LAN through wireless connection.

Wide Area Network a **WAN** connects more than one LAN and is used for larger geographical areas. A WAN works in a similar fashion to a LAN, just on a larger scale. Typically, TCP/IP is the protocol used for a WAN in combination with devices such as routers, switches, firewalls and modems. At Alok LAN's of different Department where connected to the WAN to enable communication between all departments, with the central WAN network being at the admin office

Tasks Performed

- ✓ Cabling of Shielded Twisted Pair cables with RJ45s
- ✓ Installing operating systems
- ✓ Connecting computers to a domain
- ✓ Creating and Managing user accounts
- ✓ Updating and upgrading software and applications
- ✓ IT Help Desk

3.2 Building Alok Vapi's network virtually

As I studied and understood about the Network and its interface at Alok, it came to my knowledge that Alok's Network was well planed and was designed and implanted for faster easier communication and also was easier for troubleshooting. As I studied and understood the network map of Alok as explained by my training guide Amit Thakur Sir. I planed to recreate Alok's Network Virtually, as I was learning a software for creating and simulating Network Academically, so under the guidance of my Computer communication Professor I decide to use **CISCO Packet Tracer** Software

Packet Tracer is a cross-platform visual simulation tool designed by Cisco Systems that allows its users to create network topologies and imitate computer networks. The software allows users to simulate the configuration of Cisco routers and switches using a simulated command line interface.

On studding Alok's Network I understood it was mainly divided into four WAN networks which were separated from each other by geographical distance namely
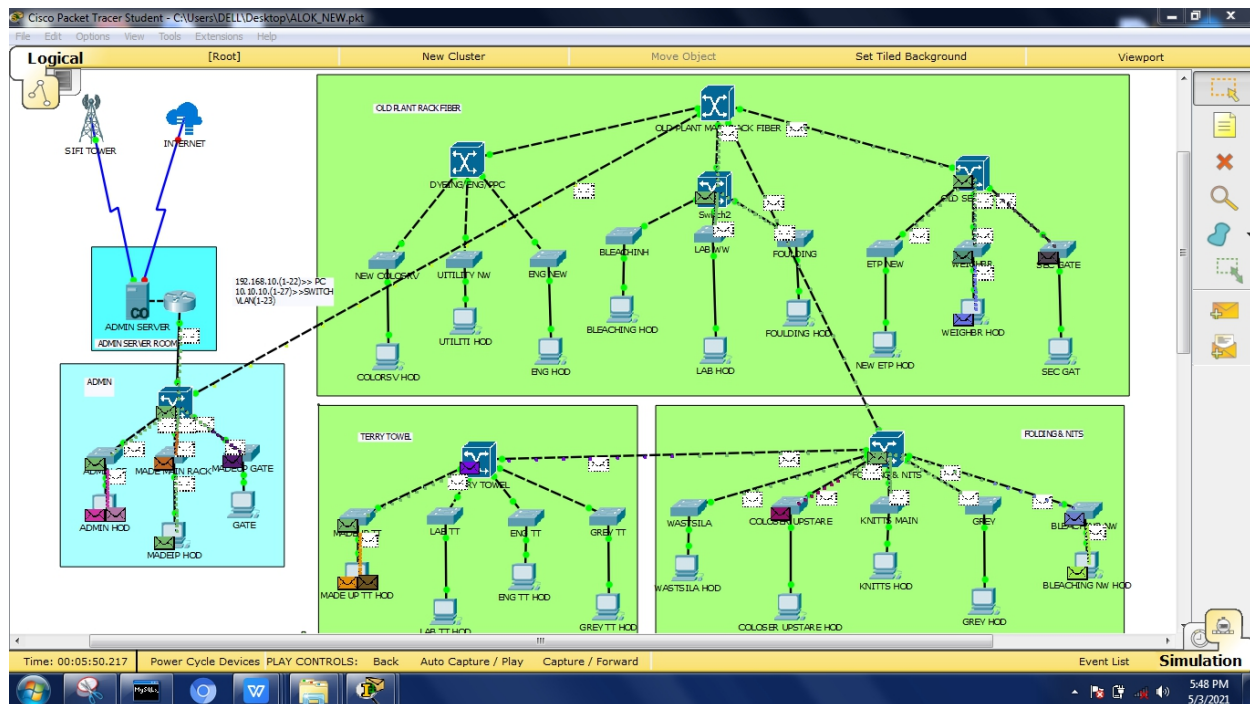- Admin
- Old Plant
- Terry Towel
- Folding and Knitts

This main networks are further divided into smaller departmental LAN networks and have main WAN network for communication between all other departments

The components use in the stimulation are
- 2950-24 CISCO switch :- it is a 2nd layer device for creating a LAN network of a department which could connect up to 24 end devices to the network.
- 3560-24 Multi Layer switch : - it is a 3rd layer device for connecting two or more LAN networks, for example in this simulation it was used to connect Admin LAN networks to Old Plant LAN networks
- 1841 Generic Router :- It was used to forward data packets between input internet and server and company network.
- PC End Devices :- Every major employee in the company has a PC assigned which enabled him/her to communicate within the organization and use software provided by the server for their respective work
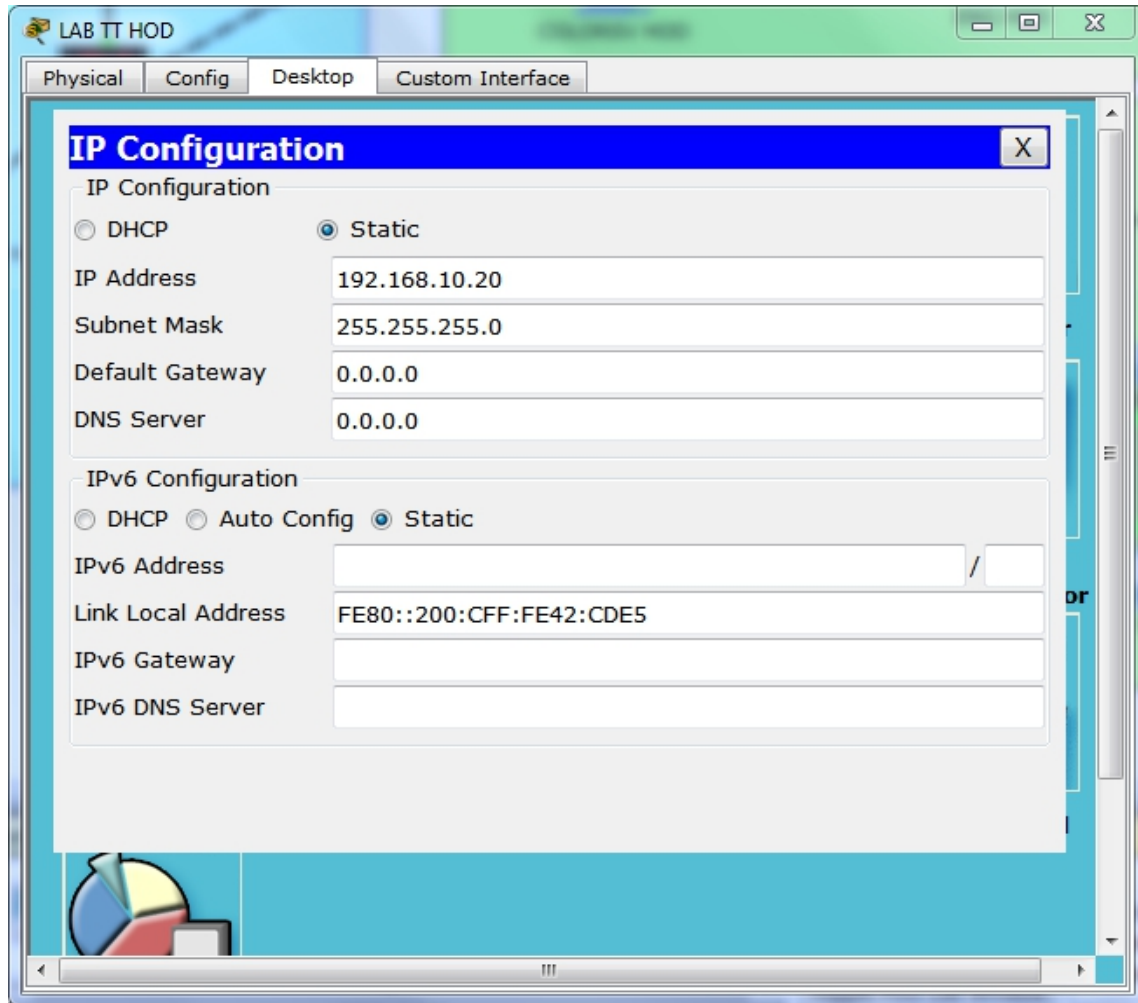
Alok's wired Network connections was done using mainly two kinds of cable Fibre Cable and CAT6 Cable. The Admin Server Room was the centralized Point for all the network of the company and it also acted as the point of connection with Alok Silvasaa and HO Mumbai other than that it acted as an input point where SIFI Tower and JIO Cloud internet connection are made to provide internet access to all the networks of Alok

The procedure for creating and conferencing every end device was,

- Making required connection with suitable wire i.e from PC to layer 2 switch to Multi Layer switch and to the Admin server using Ethernet cable
- Configuring each PC i.e assigning a dedicate IP address creating a VLAN network with the respective switch. The IP address used for PC in the stimulation belonged to class C it ranged from
192.168.10.1 to 192.168.10.22 with its subnet mask being
255.255.255.0
With 22 end devices respective 22 VLANs were created and interfaced

- Configuring VLANs with the Switches and assigning IP address to switch. For switches in the network class A address was used i.e,
10.10.10.1 to 10.10.10.27 with its subnet mask being
255.0.0.0
From which 7 were Layer 3 Multi-layer switches and 20 were Layer 2 switches.

Example of Configuring one of the Device from the simulation which was given the IPV4 address 192.168.10.20 and subnet mask as 255.255.255.0. The device in the above image is a PC from LAB of Terry Towel department

3.3 : Setting up & installation of a PC

At Alok every employee has a personal computer to communicate and store data, most of these PC were using **Windows 7 Professional OS.** But as of January 14, 2020, Microsoft has discontinued Windows 7 support, and it was important that company employees get the upgraded and latest update of the OS to use . This was a task taken on by the IT Support Team to get approval and purchase new latest PC and setup those PC with required software for employee use and security before handing it to the respective employee. The new PC chosen was HP ProDesk Mini desktop which came in with windows 10 Pro latest OS , 10 gen Intel core i5 processor, 8 GB memory and 256 GB SSD Storage ,which suited perfectly for the use in the company

As me being the part of IT support team I was assigned the job of Setting Up PC, and was guided about the steps to be followed for it, the steps were

1. Making basic connections & basic setting i.e language Date & Time etc.
2. Setting User name as Admin under personal user
3. Uninstalling unwanted default softwares like Office 365
4. Assigning PC name as   AV2/IT/CPU - *cpu number*
5. Shrinking Main Storage volume to create D drive
6. Checking and updating HP support Update& Windows Updates

The next step was to connect the new PC with the Server at Alok to get access of software and files to install, for that;

7. Set up IPV4 setting of computer network as
   IP address range **180.4. [0 - 7] . [0 - 255]**
   Subnet mask 255.255.248.0
   Preferred DNS 180.4.1.110
8. Run **180.4.0.99** to enter Server computer with user name & password
9. The server will have all the required software and there installation key, the software to be installed were

   i. SAP GUI 7.10 :- It is software that allows a employee to access SAP functionality in SAP applications such as SAP ERP and SAP Business Information Warehouse (BW). It is used for remote access to the SAP central server in the company network.

ii. Kasper Sky Net Agent :- It is an internet security suite by compatible with Microsoft Windows it offers protection from malware, as well as email spam, phishing and hacking attempts, and data leaks.

iii. Global VPN :- SonicWALL **Global VPN** is a tool used to connect to corporate networks securely. It is known that it creates a **VPN** (Virtual connected to your remote computer.

iv. Microsoft Office 2013 :- It is a version of Microsoft Office, a productivity suite for Microsoft Windows. It is the successor to Microsoft Office 2010

v. IP Messenger :- It is a pop up-style application that lets you chat and share files inside your local area network. The app is based on TCP/**IP** (UDP) and does not require a server machine.

vi. .Google Chrome & Firefox :- Two web browser application software for accessing the World Wide Web other than Windows default software Microsoft Edge.

10. The last step was to check if required software & update were properly configured and adding PC to the company database

After the PC has been made completely ready for the use in the organization the next step to be followed is to hand over the PC to the assigned Employee and backing up there old PC data to copy it in newly setup PC so that they can continue there work without interpretation. For that a proper paper work of PC hand over is made with the signature of IT head and the employee receiving the PC. The employees data from Old PC needs to be backed up and copied in new PC for that the files in D drive are transferred to a folder in their server for backup and after installation of New PC those files and folder are copied in D drive of new PC

This finishes the process of upgrading Old PC and software with New PC and Software. In my four week internship period the IT Support Team successfully handed over 150 new PC to the employees in the company.

Tasks Performed

- ✓ Setting up PC, Installation of Software
- ✓ Backing up data & PC handover

3.4 : IT Support and Help Desk

The Information technology department is the first one an employee ask for if he she is facing any problem with the computer or in the network it is the responsibility of the IT support team to resolve such problems so that the employees can continue their work. I had the opportunity to support my head and IT admin in resolving few of such problems in my four week experience.

1. Solving error and Upgradation of software :- A certain employee was facing problem while exporting files from his PC to the server, The PC had Microsoft Office 2010 for creating files while the newer version was being used by other PC on the network. The error was solved by re Installing MS Office 2013 on the PC.

2. Work from Home :- Due to the COVID - 19 situation few of the employee were advised to work from their home but it was not possible for them to connect on the company network from home, this was made possible by installing Global VPN software on their respective PC. Using this they can connect to the local Company Network via their own Internet connection while keeping the data they share on the network safe from attackers.

3. Maintenance of Camera Security System :- The cameras installed on the company premises are also configured on the network so that their output can be backed-up for further use. Due to certain reasons few of the camera where not giving output, for this first I was given the data of IP Address of cameras of a department and I used a PC on the network to **"ping each Camera IP "** to see if it is responding, after getting the list of cameras that were not working, I and IT admin checked them for their proper power connection and network connection, few of the camera were properly running after that, while fee cameras had to be reconfigured and restarted for their proper functioning.

4. LEARNNG EXPERINCE

4.1 Knowledge acquired and Skills Learnt

Networks

At the university, I saw networks only in one dimension computer networks. But today, I can boldly explain about networks . At the same time, I have gained knowledge on computer networks while at this internship. This covered studding the department Local Area Network. A simple architecture in a small technical room involved running UTP or Ethernet cables to one or more computers. Everything started from a basic level terminating of the cables, testing the cables, connecting with switch. Much as I learnt this at the University, I have practically learnt it in the internship program.

Analytical knowledge

Within the internship experience, ability to research, collect and analyse information to form more complex ideas for a problem and with this experience, I now have an upper hand in designing and developing my final graduation project.

Communication skills

My "People skills" has greatly improved thanks to this internship training. The modes of communication in the training from verbal communications to mail communications have strengthened my communications skills to a better level.

Organizational skills

Organizational Behavior defines how employees and employers act in organizations. I have learnt how to work with, understand and motivate other people, both individually and in groups. This training has nurtured my understanding of organizational behavior.

Problem solving

Conceptual skills are vital in solving problems. From day one of the training, to the last day, several training sessions have involved problem solving that require the mental ability to analyze and diagnose, for a solution.

5. CONCLUSION

As if the time span for the internship should be extended to a further one months, I must confess that the time I have spent interning with Alok Industries Vapi resulted in one of the best learning and working experiences in the field of Information Technology in my life. Not only did I gain practical skills but also had the opportunity to meet many experienced and fantastic people both in and out of the field of Information and Communications Technology. The atmosphere and staff at the Admin office were always welcoming, making me feel right at home. Additionally, I felt like I was contributing to the company by assisting the IT support team staff in their day to day work logs as well as doing the daily tasks of my trainers as part of the training. The ready-to-help staff in the Technology department have always been by my side, letting me have the opportunity to learn and interact at any time during the training.

While I was also able to learn a lot from normal office life, I enjoyed being in the Admin office which are the control rooms of the Communication and data storage Server behind the industry. Gaining the knowledge of Server and networks at Alok ignites my inner desires to pursue technology to a higher level.

Finally, the internship was fun and therefore I would encourage Alok Industries Vapi to continue giving students this opportunity, not only as a requirement from their college for the award of a degree, but also as part of a strong corporate social responsibility plan towards strengthening and building the skills of young people in the institutions and societies around the country, making sure they are presented with opportunities that shape their future for whatever carrier they intend
to fore take.

"Internship programs keep our dreams towards our beautiful and amazing carriers alive".

Thanks for giving me this wonderful opportunity

6. REFERENCE

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