



# **KWARA STATE POLYTECHNIC**

**P.M.B 1375, ILORIN NIGERIA**

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**A TECHNICAL REPORT OF STUDENTS' INDUSTRIAL WORK  
EXPERIENCE SCHEME (SIWES) REPORT**

**HELD AT:**

**OLA-IYA METAL WORK NIGERIA LIMITED**

**PREPARED BY:**

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ND/23/MET/FT/0001**

**SUBMITTED TO:**

**DEPARTMENT OF METALLURGY ENGINEERING  
TECHNOLOGY,  
INSTITUTE OF TECHNOLOGY,  
KWARA STATE POLYTECHNIC, ILORIN.**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR  
THE AWARD OF NATIONAL DIPLOMA (ND).**

**FROM**

**AUGUST--NOVEMBER, 2024**

## **PREFACE**

This contain a written report of the work done by me during the four-month industrial attachment with one of the best Organization In Ilorin, which is Ola-Iya Metal Work Nigeria Limited.

This work goes further to share the experience I had in the station.

This summarize all the things I learnt and the problems encountered by me, my recommendation and conclusion of all my work.

## **DEDICATION**

This report is dedicated to Almighty Allah for his mercy and protection on me throughout the program.

## **ACKNOWLEDGMENT**

All glory, honor and adoration goes to the Almighty Allah for mercy received during the course of my study and when undergirding my Industrial Training.

My appreciation also goes to my industrial based lecturer, whose accessibility, untiring effort, patients and guidance and suggestions fabulously contributed to the Completion of this report, may God continue to guide and protect them and their family.

My special thanks also go to my families (THE SPECIAL ISKILU) for their support, both morally and financially, before and during my SIWES program, I shall forever be grateful. May you live long enough to reap the fruit of your labour (Amin)

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## **CHAPTER ONE**

### **INTRODUCTION TO SIWES**

SIWES Is an acronym for students industrial work experience scheme, SIWES is an effective instrument used for exposing students to the relative of the work environment in Nigeria especially and the world in general in their various professions so as to achieve the needed technological advancements for the nation this the skins is a pastoral program involving universities polytechnics and technical college for students of various institution in Nigeria it is run jointly by the industrial training fund ITF

Some of the aims of SIWES are;

To provide for student opportunity to be involved in practical aspects of their respective disciplines does bridging the gap between the theoretical aspects taught in class and the real-world solution

To expose students to latest developments and technological innovation in their chosen profession

To prepare students for industrial working environment they are likely to meet after graduation

### **BRIEF HISTORY OF SIWES**

The students industrial work experience scheme **(SIWES)** is a skill training program designed to expose and prepare students of Universities, polytechnics, colleges of technology and others for The industrial work experience they are likely to meet after Graduation.

The scheme also afford students the opportunity of familiarity And exposing themselves to the needed experience in handling Equipment and machineries that are usually not available in their Institutions, the industrial training fund (**ITF**) funded the scheme During its formative year in 1973/74. But, as the financial Involvement became unbearable to the fund, it from the Scheme 'n 1978. The federal government handed over the scheme in 1979 to both the national understates commissioners (**NUC**) and the National board for technical education (**NBTE**). Later, the federal Government in November 1984 revert the management and Implementation of the **SIWES** program to **ITF** and it was effectively Taken over by the industrial training fund in July 1985 with the Funding been solely borne by the federal government.

## **IMPORTANCE AND OBJECTIVES OF SIWES**

In regards to the SIWES handbook, the specific objectives and Importance of the SIWES are to:

- Provide an avenue for students in institutions of higher Learning to acquire industrial skills and experience in their Course of study
- Prepare students for the industrial work experience they are To undergo after graduation
- Provide students with an opportunity to apply their knowledge in real work situation thereby bridging the gap between Theory

and practice. To satisfy accreditation requirements set by NBTE.

- To provide students an opportunity to see the real world of their discipline and consequently bridge the gap between the Classroom and real work situation.
- To enable students assess interest suitable for their chosen Profession.



## **CHAPTER TWO**

### **INTRODUCTION**

I, **ISKILU IDRIS ADEBOWALE**, began my industrial attachment on the Saturday 10<sup>th</sup> August, 2024. I obtained placement with the **OLA-IYA METAL WORK NIGERIA LIMITED**, located Behind Bravo Filling Station, Sango, Ilorin Kwara State. My industrial attachment ended on Saturday 23<sup>rd</sup> November, 2024, making Sixteen Weeks.

### **HISTORY OF OLA-IYA METAL WORKS NIGERIA LIMITED**

Ola-Iya Metal Works Nigeria Limited is situated in Ilorin Behind Bravo Filling Station Sango, Ilorin Kwara State. It is a private organization, which was set up to control specific metal infrastructural activities for the development of both the Rural and Urban region of the state. The organization was crated since of 2005, Ola-Iya Metal Works Nigeria Limited, Ilorin Kwara State was meant for carrying out works on metals etc.

### **ADMINISTRATIVE AND OPERATIONAL STRUCTURE**

**Administrative Department:** This is a department that is in charge of keeping proper records of the staff of the organization, supervises the running of the affairs and maintenance and discipline in the organization

- **Account Department:** It is in charge of keeping the financial details and transactions of the station for both the money coming in and out
- **Engineering Department:** It is a department that is in charge of engines and all electronics equipment in the station. It has various unit such as outside broadcasting, maintenance, W.T.R transmitter, power plane. It is the heart of the station.
- **Program Department:** This is the department that is in charge of the program production. It has various units such as production, presentation and film.
- **News and Current Affairs Department:** This is responsible for Information management, news production and reporting to inform and educate the public.
- **Marketing Department:** Provides a formidable, robust and resort oriented media campaigns on various products and services. The Marketing department is into advertising, branding and promotional Activities for any commercial items to boost acceptance and Patronage to the market.
- **Other supportive departments include:**
  - Administration for staff welfare and general services.
  - Financial Department ensures prudent management of available Resources.
  - The Audit moderates financial regulations based on the principles of transparency and accountability.

## CHAPTER THREE

### TECHNICAL TRAINING EXPERIENCE

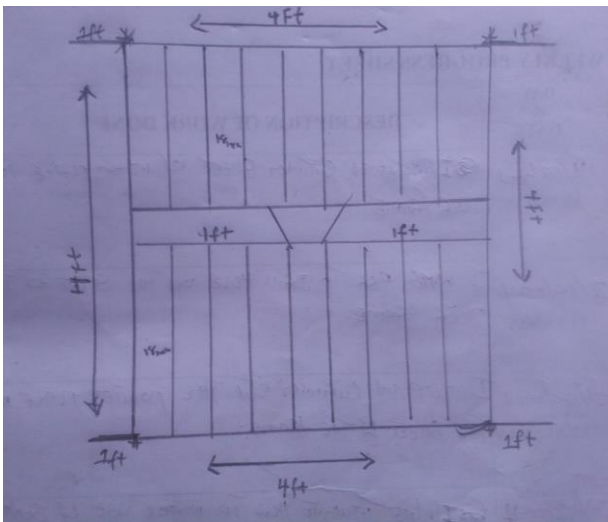
During My SIWES program at Ola-Iya Metals Works Nigeria, Limited, I do so much work and I acquired a lot of friends below is a summary of the work done and experience obtained

#### WEEK 1

I was introduced to measurement by the use of taperule and was taught how to measure in inches ( $1/16$ ,  $1/8$ ,  $3/16$ ,  $1/4$ ,  $5/8$ ,  $3/8$ ,  $7/16$ ,  $1/2$ ,  $9/16$ ,  $5/8$ ,  $11/16$ ,  $3/4$ ,  $13/16$ ,  $7/8$ ,  $15/16$  and 1 inch). I was also taught how to measure in millimeter (MLM).

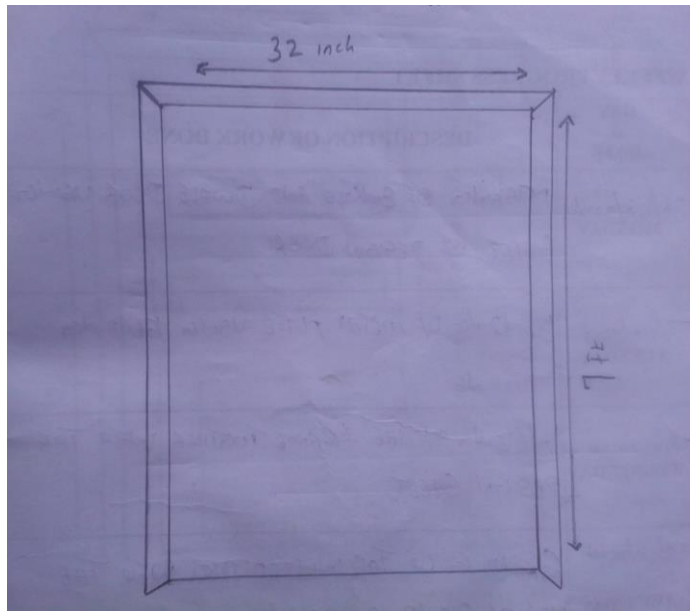
#### WEEK 2

I was taught how to identify metallic pipe and their names i.e 1 inch round pipe 3 1/2, round pipe, 1 1/2 square pipe etc, I also assisted in sand paper of fence rail which filling was added to the welded part then sand paper began before pointing and I was taught how to use bending machine for door frame.



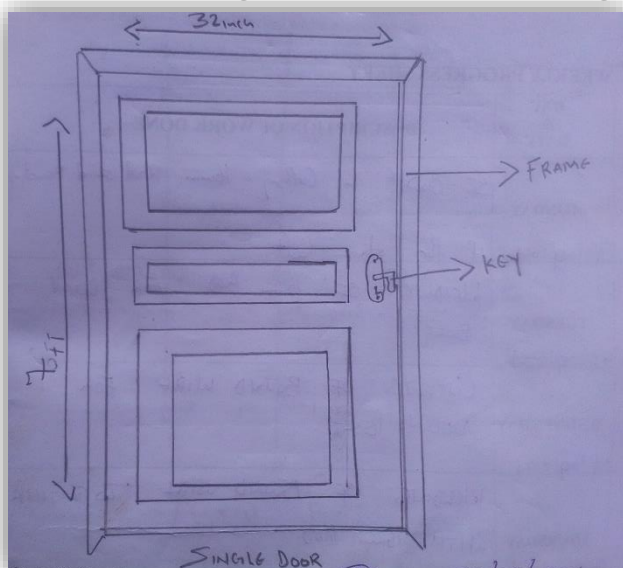
### WEEK 3

I assisted in cutting sheet of 12mm plate for door frame and I was ask to frill hole on the sheet of the door frame also I help in cutting out the pointed place in the sheet of the frame.



### WEEK 4

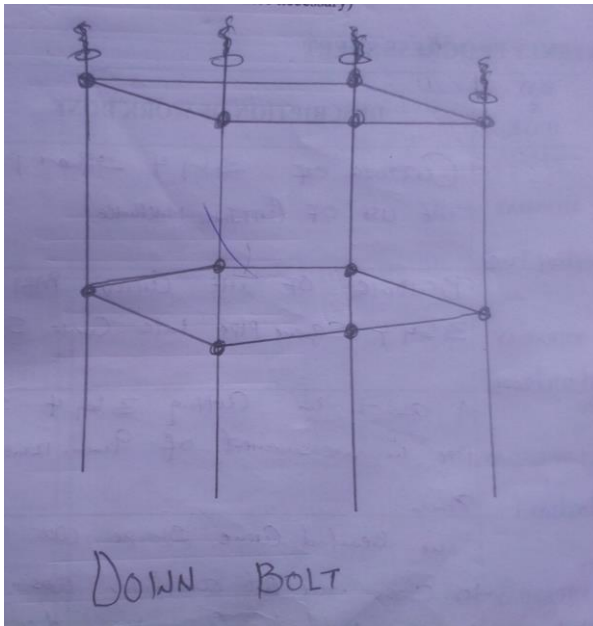
Making of single and double door using sheet of design door and bending of metal plate using bending machine and also welding of the frame together with the design sheet.



## WEEK 5

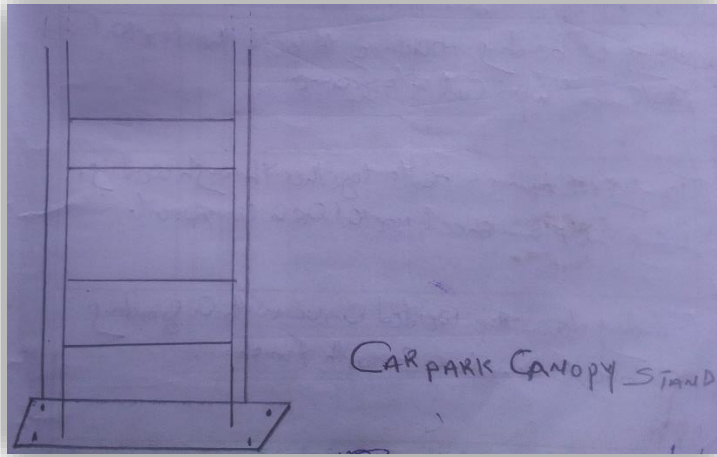
I assist in cutting 16mm rod and bending it for down bolt. And welding of 16mm rod down bolt with cutting of bound wire for down bolt also welding of down wire together with 16mm rod.

I assist in assembling metal for gate for next week project and some question was ask then supervisor give is comment.



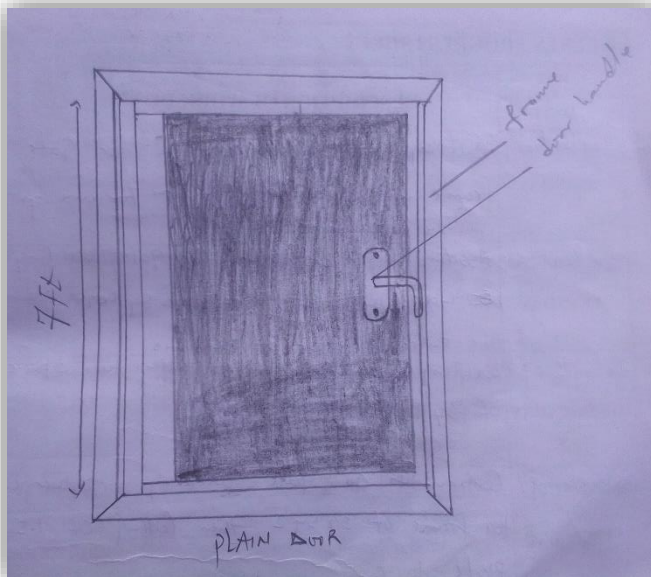
## WEEK 6

Cutting of 3 by 4 square pipe with the use of cutting machine and bending of the cutted curve shape and I also assist in cutting 3 by 4 square pipe in measurement of 9 inch, 12 inch & 8 inch. The bended curve shape was weld to close the cut and filler was added and also weld the 9 inch, 12 inch & 8 inch together.



## WEEK 7

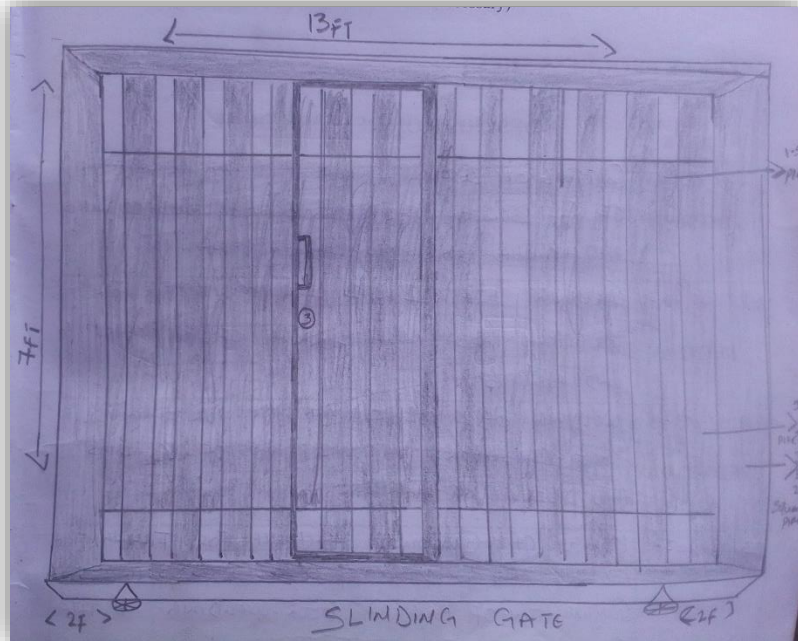
Fabricating of single plain doors using plain sheet metal = I helped in cutting the metal plants for the plain door using of bending machine to bend the metal plate that was cut into frame and joining of frame's parts together through welding using the plain sheet metal as a component.



## WEEK 8

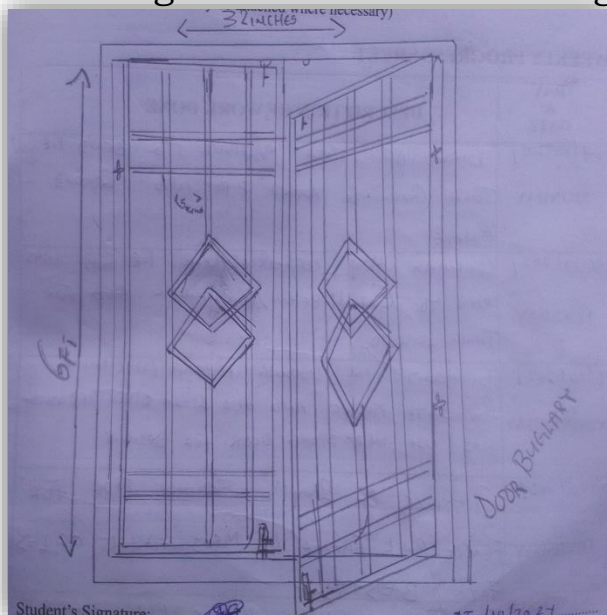
Cutting of 3 ½ inches by 2 for gate frame welding of 2 by 1 pipe for a a gate inside i.e inner and assiting in construction of gate

welding 5 inches by weight & 84 inches by height and the entrance door of 32 inches with welding of 2 by 1 pipe with the space of  $\frac{3}{4}$  pipe



## WEEK 9

Cutting of 1 by 1 square pipe in measurement of 6ft 30inches for door burglary and 81inches and 58inches for window burglary proof with welding of 1 by 1 square pipe for burglary proof in measurement of 81 inches and 48inches using of granding machine for filling the welded and welding the shaped design.

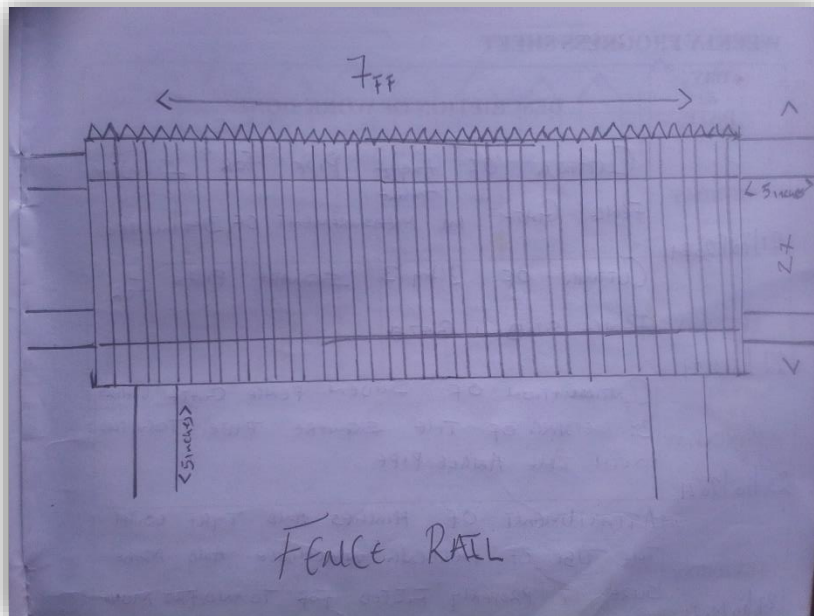


## WEEK 10

Using turn machine to bend i.e turn galvanize round pipe into round shape and learning how oxy-accelylene for tank stand and also assist in loading H. beam/U-channel for tank stand. Also cutting of 2 by 1 ½ square pipe for fence rail frame in measurement of 2 = 7ft & B = 27.

## WEEK 11

Grinding machine was use to file the welded part and welding of the bended plate for arrow fence rail, filler was added to the welded part before sandpaper and painting began and I was ask to recall all I learnt throughout the week.

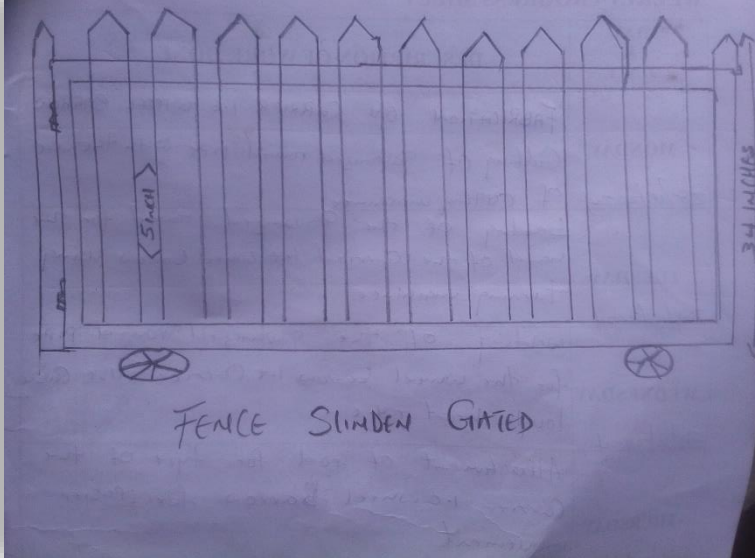


## WEEK 12

Cutting of pipe for sliden fence gate in angle measurement of 34 inches, cutting of 2 by 3 square pipe for fence sliden gate and

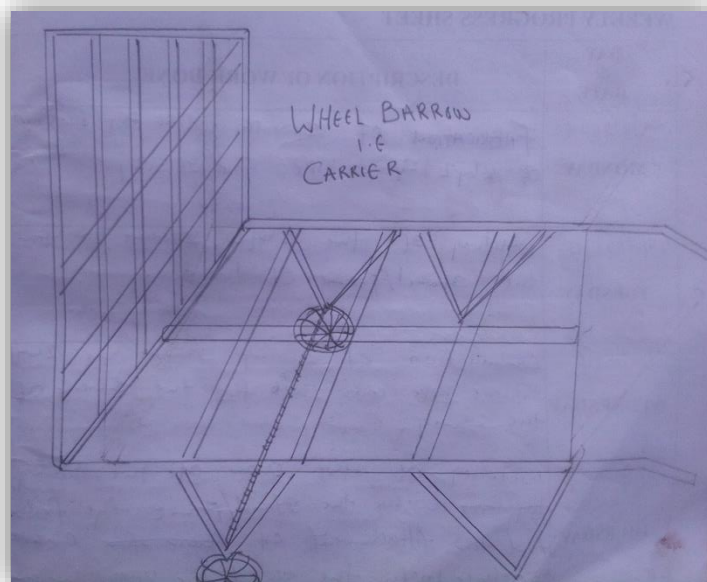


attachment of hinges and tyre with the user of welding machine and make sure it properly filled for to and fro movement.



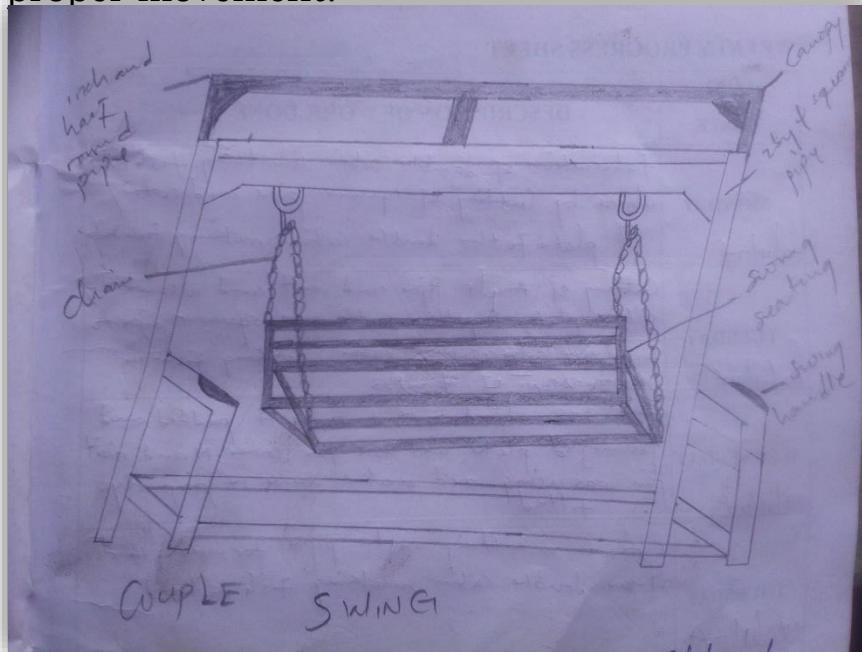
### WEEK 13

Fabrication on carrier i.e wheel barrow cutting of galvanized round pipe with the use of cutting machines and bending of the galvanized round for the hand of the carried i.e wheel barrow using turning machine also attachment of rod for tyre of the carrier i.e wheel barrow for easier movement.



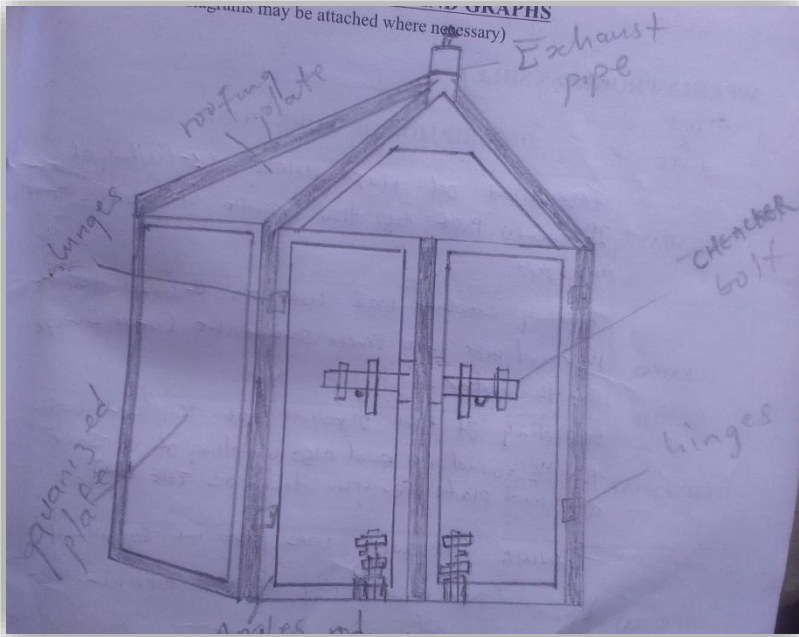
## WEEK 14

Fabrication of swing where by cutting of 2 by 2 square pipe for swing and welding of the 2 by 2 square pipe for the stand/frame of the swing also welding of the chair of the swing with the stand/frame the frame and also attachment of chair together with the stand for proper movement.



## WEEK 15

Fabrication of double cabin smoking fish kiln where by cutting of square pipe and cutting of plate for the double cabin smoking fish kiln, cutting of angle pipe and net and welding of the plate together with wire square pipe to form fish kiln of where cabin smoking fish in measurement of inches.



## WEEK 16

Fabrication on hut where by cutting of 2' round pipe and also cutting of  $1\frac{1}{2} \times 1\frac{1}{2}$  round pipe, turning machine was use to bend the  $1\frac{1}{2}$  round pipe into circle shape i.e curve shape for the outer and welding of the 2' round pipe together with the  $1\frac{1}{2}$  round pipe and also welding of Versace designed plate for the design of the hut.

## **CHAPTER FOUR**

### **EXCLUSIVE SUMMARY**

#### **BENEFITS**

- I become more enlightened by encountering and getting familiar with different equipment.
- I was able to relate most of my theoretical aspect taught in the class to the physical aspect in the organization.
- I experienced how to use some television equipment.
- I also improved in my understanding of some stages.

#### **WORK CARRIED OUT WITH CLEAR STATEMENT**

I experience in the following as a staff of Olaiya Metal Works Nigeria Limited:

- i. Welding of pipe door window
- ii. Burglary and any kind of metal work introduce to measurement
- iii. I was taught how to cut pipe and other metal with these
- iv. In 4 month experience I have a very good experience in the fabrication

## **CHAPTER FIVE**

### **CHALLENGES ENCOUNTER**

There are some challenges I encountered during my Siwes program which has depressingly affected the growth and development of the scheme, some of the problems include;

1. Inadequate funding of the scheme.
2. Negligence arising from the institution coordinators of the scheme.
3. Lack of cooperation from employees/trainees.
4. Insufficient professionals in the scheme.

Another challenge was lack of consecration more student lack concentration due to their supervisors refuse to give them full attention to the students by passing and explaining things to them claiming that schedule is tight when on duty

Lastly, was the problem of transportation because my place of attachment was a little bit far from my residence.

So many challenges was face but to mention the few.

### **RECOMMENDATIONS AND CONCLUSION**

Going through some of the experience gained during the Program, I will recommend that there is need for Improvement On some of the activities, both in Olaiya Metals Work Nigeria Limited where I served and the school.

- The time duration for the program should be extended for more than two months.
- Students' Industrial Works Experience Scheme (SIWES) needs to be strengthened by all concerned stakeholder in order for its objectives to be fully realized.
- Regular monthly allowances for students on attachment should be paid promptly.
- Organizations should always accept students for SIWES and subsequently assign them to relevant jobs.
- Experience staff should always be made to train the students on attachment
- There should be more funding of the scheme by the government in order for it to be more effective.
- The companies should put in place all the necessary facilities needed to enhance the knowledge of the student in industrial attachment.
- It will be of great benefit if the institution can create a platform whereby student can obtain pre-SIWES knowledge or excursion programs, before student embark for general 6 months industrial training programme.

## **CONCLUSION**

SIWES was established to provide opportunities for students to Involved in the practical aspect of their respective disciplines in the Industrial working environments. During my 2-month industrial Training, I gained a wide range of experience from the various

Assignments undertaken such as Using turn machine to bend i.e turn galvanize round pipe into round shape and learning how oxy-acetylene for tank stand and also assist in loading H. beam/U-channel for tank stand. Also cutting of 2 by 1 ½ square pipe for fence rail frame in measurement of 2 = 7ft & B = 27.

Measurement by the use of taperule and was taught how to measure in inches (1/16, 1/8, 3/16, ¼, 5/8, 3/8, 7/16, ½, 9/16, 5/8, 11/16, ¾, 13/16, 7/8, 15/16 and 1 inch). I was also taught how to measure in millimeter (MLM).

Identify metallic pipe and their names i.e 1 inch round pipe 3 ½, round pipe, 1 ½ square pipe etc, I also assisted in sand paper of fence rail which filling was added to the welded part then sand paper began before pointing and I was taught how to use bending machine for door frame.

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