



**KWARA STATE POLYTECHNIC, ILORIN**

**STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)**

**A TECHNICAL REPORT ON SIWES**

**DONE AT**

**YAHYA ELECTRICAL SERVICES AND MULTIPURPOSE VENTURES**

**BY**

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## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of SIWES**

**The Student Industrial Work Experience Scheme (SIWES) was introduced by the Nigerian government through the Industrial Training Fund (ITF) to equip students with practical knowledge and hands-on experience relevant to their fields of study. This program bridges the gap between theoretical knowledge and practical application in real-world industries.**

### **1.2 Introduction to Yahya Electrical Services and Multipurpose Ventures**

**Yahya Electrical Services and Multipurpose Ventures is a company specializing in electrical installation, maintenance, wiring, and general electrical contracting. The company offers services such as:**

**Domestic and industrial wiring**

**Electrical fault troubleshooting**

**Power system installation**

**Renewable energy solutions (e.g., solar panel installation)**

**Electrical appliances repair and maintenance**

### **1.3 Objectives of the SIWES Program**

**The primary objectives of the SIWES program at Yahya Electrical Services and Multipurpose Ventures include:**

- 1. Providing students with practical exposure to electrical engineering practices.**
  
- 2. Enhancing problem-solving skills in real-life electrical engineering projects.**
  
- 3. Understanding safety procedures in electrical installations.**

**4. Learning how to use electrical tools and equipment effectively.**

## **CHAPTER TWO: ORGANIZATION STRUCTURE AND OPERATIONS**

### **2.1 Organizational Structure**

**The company is structured into different departments, including:**

**Installation Department: Responsible for wiring, electrical installations, and testing.**

**Maintenance Department: Handles repairs and servicing of electrical equipment.**

**Renewable Energy Division: Specializes in solar power and alternative energy solutions.**

## **2.2 Major Operations of the Company**

**During my SIWES training, I was exposed to various electrical engineering operations, including:**

**Wiring of Residential and Commercial Buildings**

**Installation of Transformers and Electrical Panels**

**Electrical Fault Diagnosis and Repair**

**Testing and Inspection of Electrical Installations**

**Solar Power Installation and Maintenance**

## **CHAPTER THREE: DESCRIPTION OF WORK DONE**

### **3.1 Practical Experience and Tasks Performed**

**During my time at Yahya Electrical Services and Multipurpose Ventures, I was assigned various tasks, including:**

#### **3.1.1 Electrical Wiring**

**Assisted in wiring houses, offices, and industrial buildings.**

**Installed electrical fittings such as sockets, switches, and lighting fixtures.**

#### **3.1.2 Troubleshooting Electrical Faults**

**Diagnosed faults in electrical circuits using a multimeter.**

**Identified and replaced faulty circuit breakers and fuses.**

### **3.1.3 Solar Power Installation**

**Assisted in installing solar panels and inverters.**

**Learned how to calculate power load requirements for solar systems.**

### **3.1.4 Safety Procedures and Precautions**

**Understood the importance of grounding and earthing in electrical systems.**

**Observed standard safety rules when handling electrical installations.**

## **CHAPTER FOUR: CHALLENGES AND SOLUTIONS**

### **4.1 Challenges Faced**

**Difficulty in understanding complex electrical diagrams at the beginning.**

**Working under extreme weather conditions during outdoor installations.**

**Shortage of materials sometimes delayed work progress.**

### **4.2 Solutions Applied**

**Received guidance from experienced engineers to interpret electrical schematics.**

**Used protective gear to adapt to challenging environmental conditions.**



**Communicated with suppliers to ensure a steady supply of electrical materials.**

## **CHAPTER FIVE: LESSONS LEARNED AND RECOMMENDATIONS**

### **5.1 Lessons Learned**

**Gained hands-on experience in electrical installation and maintenance.**

**Learned the importance of teamwork in executing electrical projects.**

**Developed problem-solving skills in electrical fault troubleshooting.**

### **5.2 Recommendations**

**The company should provide more training sessions for students on advanced electrical engineering techniques.**

**Future interns should be given more exposure to modern electrical technologies.**

**Institutions should collaborate more with industries to ensure students get real-world experience.**

## **CHAPTER SIX: CONCLUSION**

**My SIWES experience at Yahya Electrical Services and Multipurpose Ventures was highly beneficial. It provided me with practical exposure to electrical engineering concepts and enhanced my technical skills. I am confident that the knowledge and experience gained will contribute significantly to my future career in electrical and bio-environmental engineering.**