

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**COLLEGE OF ENGINEERING**



**DEPARTMENT OF ELECTRICAL/ELECTRONIC ENGINEERING**

**INTERNSHIP REPORT**

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## **ACKNOWLEDGEMENT**

I would like to first express my sincere gratitude to the Electrical/Electronic department in Kwame Nkrumah University of Science and Technology for organizing such an interactive exercise.

My next appreciation goes to Ing. Baah, the district engineer at Mampong ECG (Ashanti-SBU) and the entire staff. I had a great time with them all and I am ever thankful to their support in helping me complete my internship successfully.

Thank you all for the knowledge you have inculcated in me and I am looking forward to applying it in the real world.

## **EXECUTIVE SUMMARY**

In my quest for skills in electrical/electronic engineering, I applied as an intern at the Electricity Company of Ghana, Mampong (Ashanti-SBU).

I had the opportunity to learn about distribution lines. The zeal and passion of the staffs to attend to any fault on the distribution lines compelled me to put in much effort and apply my professionalism in Electrical engineering.

Day in day out I was closing the gap between the theoretical and practical aspect in Electrical engineering as the staff involved me in the practical works. I had the chance to understand most of the distribution line faults and the preventive measures taken to reduce its prevalence.

While building my technical skills, I also had the chance to build my behavioral and soft skills. I had the opportunity to learn how to effectively communicate our methods to customers and render services to them.

The report highlights all the activities I undertook during my internship journey.

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## ❖ INTRODUCTION

### **The Electricity Company of Ghana (Ashanti- SBU)**

The Electricity Company of Ghana Ltd. Started as the Electricity Corporation of Ghana in 1967 by Government Decree (NLCD 125) and was incorporated under the companies code, 1963 (Act 179) as the Electricity Company of Ghana Limited (ECG) in February 1997.

The Electricity Company of Ghana specifies in distribution lines in power systems. They are responsible for stepping down 11kv or 33kv to 240V on the distribution lines to render services to consumers.

Constantly, they monitor the operation of the lines and see to it that every fault is curbed to ensure consumers' satisfaction.

### **Internship Objectives**

The main objective of this internship is to bridge the gap between the theoretical and the practical aspects of Electrical/Electronic engineering. It is also meant for the students to exercise their professionalism at the real world job.

### **Internship Duration**

The internship spans within two months. Every student was required to be an intern for not less than a month. I spent a month and two weeks as an intern at the Mampong Ashanti SBU(ECG).

## ❖ **INTERNSHIP POSITION AND RESPONSIBILITIES**

### **Internship Role Description**

My roles as an intern at the Electricity Company of Ghana were to:

- Pay attention to particulate instructions
- Join the fault team to embark on distribution lines and transformers maintenance
- Join the disconnection team to ensure effective company-customer relationship.
- Join safety meetings every Monday.
- Help in rendering services to new and old customers.

## ❖ ORGANIZATIONAL STRUCTURE

### Organizational Hierarchy

The following highlights the ECG Mampong (Ashanti-SBU)'s hierarchy:

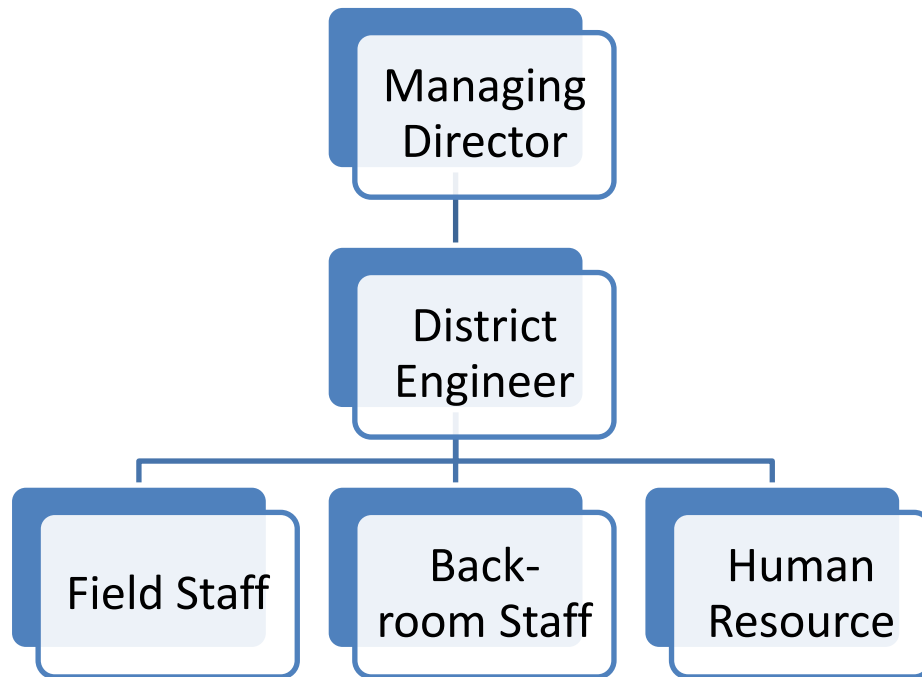


Fig. 1

### Departments and Personnel

DEPARTMENT	PERSONNEL
Field Staff	Fault and Maintenance Team, Disconnection Team
Back-room Staff	Accountant, Mappers, DCO, DTO

Fig. 2



## ❖ SKILLS ACQUIRED

During my internship, I acquired the following skills;

- I learned how to replace both Low Voltage and High Voltage transformer fuses.



fig. 3



fig 4

- I learned environment clearance and distribution line poles erection.
  - ✓ I learned about the pole's head gears and their functions. The head gears consists of:
    - Lock pin
    - Shackle insulators
    - Dee Iron
    - Bolt and nut



**Fig 5.**

- ✓ I learned the winding and unwinding of distribution lines (Aluminium)
- ✓
- I learned how to bind distribution cables
- I learned how to read the single phase energy meters

- I learned how to mount lightning arresters



fig 6

- I learned how to professionally communicate with customers
- Joining the disconnection team enhanced my knowledge in energy meters

In the future, I aim to pursue a major in smart home technologies. The skills I have acquired will be instrumental to my career goals, as I am now well-versed in identifying the types of faults that occur on distribution lines. I can use this knowledge to build smart protective devices for electrical appliances.

## ❖ CHALLENGES FACED

I used to reside in a nearby town, so I had to consistently catch a car to reach the yard, which presented its own set of challenges. The successful completion of my internship was made possible through a combination of my saved funds and support from my parents.

Upon commencing my internship, there was a need for me to familiarize myself and adapt to the organization's procedures. Fortunately, I had a supportive supervisor who guided me and facilitated a smooth settling-in process.

Limited access to modern tools and equipment hindered my learning experience and my ability to work efficiently. Overcoming these challenges required my adaptability and creative problem-solving which helped me to work within the existing constraints.

Keeping abreast of legal requirements, safety protocols, and industry standards can be demanding but is crucial for a successful internship. Effective communication with regulatory bodies and compliance with protocols was essential skill that helped me in that regard.

## ❖ **ACHIEVEMENTS AND CONTRIBUTIONS**

During my internship at the Electricity Company of Ghana's Mampong Ashanti SBU, I actively contributed to various aspects of the organization's operations, gaining valuable skills and making meaningful contributions to the team. Here are some highlights of my internship experience:

- **Adherence to Instructions:**

I paid attention to particular instructions, ensuring that I followed procedures accurately. This commitment to detail contributed to the smooth execution of tasks and maintenance activities

- **Fault and Maintenance Team Participation:**

As a member of the fault team, I actively participated in distribution lines and transformers maintenance. This experience allowed me to apply theoretical knowledge to real-world scenarios, enhancing my practical skills in troubleshooting and resolving electrical faults

- **Professional Communication:**

Joining the disconnection team enhanced my communication skills, especially in dealing with customers. Learning how to professionally communicate with customers is an important aspect of ensuring customer satisfaction and maintaining a positive company image.

- **Contribution to Organizational Adaptation:**

Facing challenges such as limited access to modern tools and equipment, I showcased adaptability and creative problem-solving. My ability to work efficiently within existing constraints contributed to overcoming infrastructure challenges and ensuring the continuity of operations.

## ❖ **RECOMMENDATION**

- **Enhance Training Program**

I suggest that the ECG implements comprehensive training programs that cover both theoretical and practical aspects of the job. This will better prepare interns for real-world challenges and improve their ability to contribute effectively

- **Provide Adequate Tools and Equipment**

I strongly suggest that the ECG will address the issue of limited access to modern tools and equipment. Ensuring the staffs and interns has access to modern technology will enhance their learning and working experience and contribute to more efficient work.

- **Recognition for Outstanding Contributions**

I think there should be a recognition system to acknowledge outstanding contributions from interns. This can serve as a source of motivation to interns to actively contribute to the organization and engage in their roles.

## ❖ CONCLUSION

In conclusion, my internship at the Electricity Company of Ghana, Mampong Ashanti SBU was a transformative experience that provided a bridge between theoretical knowledge and practical application in the field of Electrical/Electronic Engineering. The supportive environment at both Kwame Nkrumah University of Science and Technology and ECG played a pivotal role in the successful completion of my internship.

My internship at ECG was a fulfilling and educational journey, providing a solid foundation for my future endeavors in the field of Electrical/Electronic Engineering. I am grateful for the knowledge imparted by the staff and look forward to applying these skills in the real world.

## ❖ REFERENCES

- <https://ecg.com.gh>