

HEPSSA WORKSHOP ON 15TH-16TH

EXPERIENCE :INDUSTRY VISIT FOR COLLABORATION

A BRIEF LOOK INTO ELECTRICAL CONTROL AND SWITCHGEARS (ECS)

1, Introduction

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2, I joined the industry (ECE) from the 3rd May to 21st May 2021 Under the industry exchange program me under HEPSSA .The place is located in Kawempe along Bombo road, 8 Kilometers from Kampala.

3, The work structure of which is small Under the headship of a managing director.

The heads of departments all report to the Head and staff in their respective departments report to their heads of departments

4,The transformer Department

The head of Department does Design of the transformer using a software from India. The design determines,

(a)The power of the transformer (b),The size of the transformer. (c),the materials of the transformer and (d), the capacity.

The specifications are approved and sent to India for orders of Materials. These include Lamination, Transformer oil, Paper insulations etc. Also some materials are secured within the country like the copper wire.

5,Construction of the transformer is done through a good number of stages and these include,

a)Making of core. Like sizing arrangement of core for Laminations

b)Rewinding of both the HV and LV windings of the transformer ,this involves counting of turns, making of separations for transformer tapings, Making of insulations etc

c)Fitting of the windings into the cores. This is done up to completing Laminations and also following separations.

d)Baking of tank,Baking of windings, Baking of core etc. This is to ensure no moisture

d) servicing of oil. This is also to see no moisture in the oil.

e) Assembly of the transformer , Housing the tanks is done

f) Testing of the Transformer is done on a standard test Bench. Over eight tests are done here as opposed to the a few done in the Lab.

Safety is ensured in all areas of work and more so in workshops .A lot of warning signs are every where. Precautionary measures are taken where need is like making boundaries to places prohibited. Also SOP as part of safety were well observed

There other Departments like the Electrical Department

The Department just like the transformer department constructs control panels, Test and install them in the field. They also take charge of Dong maintenance and servicing where cases arise.

The Mechanical Engineering Department make the transformer tanks, bodies of panels.

This is done using CNC machines for cutting Punching bending and also shaping. High precision is realized with these type of machines

Lastly Spraying and polishing of the parts done in the mechanical Department is an independent work done in this Department. Different Detergents are used, Baking is also done and also spraying for better finish.

Recommendations

1, Encourage more collaborations with industries

2, Attach students to industries of their choice steadily throughout their carrier period

3 Encourage students do specialization at an early time ie in their first year at the University.

4) Encourage students and all other young people work patiently look for experience first other than money.

5) Allocate a fund for engagement of all the parties involved in the industry exchange program me.

6) Draw a program me for exchange hat run during the semester period to allow visitor meet a good number of students

