

**FACULTY OF COMPUTING AND INFORMATION MANAGEMENT.**

**BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY.**

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INDUSTRIAL ATTACHMENT REPORT AT MINISTRY OF EDUCATION

STATE DEPARTMENT OF EARLY AND CONTINUING EDUCATION

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# **ACKNOWLEDGEMENT**

I would like to appreciate the attachment opportunity rendered to me by Ministry of education and particularly the ICT Department of Ministry of ICT. From this opportunity, I have gained more experience in my area of study.

Also, I wish to acknowledge the ICT Departmental staff who mentored me through my attachment program particularly Mrs. Agnes Keli James, Mr. Tom Onchari, my fellow attachment colleagues and the entire officers’ who presented ICT problems that my solving contributed in refining my technical skills.

May God bless you all.

# **EXECUTIVE SUMMARY**

Introduction to ministry of education

The government of Kenya through the ministry of education science and technology are obligated to for the provision and coordination of education, training, research, education policy formulation and implementation and quality assurance at the all levels of learning.

## **Mission of ministry of education**

To provide, promote and coordinate the delivery of quality education, training and research and enhance integration of science, technology and innovation into national production systems for sustainable development.

## **Vision statements**

A globally competitive education, training, research and innovation system for sustainable development.

## Key functions/activities of the ICT department

The ministry of education ICT Department plays a backbone role to ensure that the organization achieves its objectives though the provision and sustenance of ICT technologies. The Department’s functions include: -

### NEMIS registration and support.

### Networking.

### Database management

### Security

### Support.

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# **CHAPTER ONE**

# **INTRODUCTION**

## **History of ministry of education**

The ministry of education science and technology is mandated by the government of Kenya to provide education to the republic of Kenya. Their mission is to provide, promote and coordinate lifelong education, training and research for the Kenyan’s sustainable development. In order for the ministry to attain its goals and mission the ministry is divided into different state department od education and the state department of science and technology.

The education sector servers several function to make the life of each student comfortable in their quest for knowledge. This function mainly includes:

1. Administration and planning
2. Education policy management
3. Administration of Early Childhood Education, standards and Norms
4. Curriculum Development
5. Quality assurance in Education
6. Adult Education management

## **Mission of ministry of education**

To provide, promote and coordinate the delivery of quality education, training and research and enhance integration of science, technology and innovation into national production systems for sustainable development.

## **Vision statements**

A globally competitive education, training, research and innovation system for sustainable development.

## Core values

In pursuit of our vision and mission, we will be guided by the following fundamental core values:

* Transparency, accountability and integrity – We are committed to delivering our services in an honest, accountable and transparent manner.
* World-class benchmarking standards – We commit ourselves to deliver based on international standards for global competitiveness.
* Excellence and team work – We embrace excellence in service delivery, teamwork and collaboration both among internal team members and with external stakeholders in the delivery of services.
* Respect for human rights and gender sensitivity - We shall render services without any discrimination regardless of race, ethnic background, religion, gender and social status
* Professionalism, ethical and evidence-based decision making - Service deliver will be based on the highest professional standards and ethics. Decisions made will, as much as possible, be based on objectively verifiable facts.
* Innovation and creativity - Service delivery will be improved through continuous and creativity in new and more efficient methods.

## The Directorate of the ministry and their function

1. Administration and planning – the function of this directorate is to provide support services to technical directorate in delivering their mandate.
2. Directorate of basic education.

# **CHAPTER TWO:**

# **HOST ATTACHMENT DEPARTMENT**

## **Key functions/activities of the ICT department**

The ministry of education ICT Department plays a backbone role to ensure that the organization achieves its objectives though the provision and sustenance of ICT technologies. The Department’s functions include: -

### NEMIS registration and support.

The Department the mainly dealt with registration of primary schools in the new government system that required all primary school to be registered. The registration process involved assigning the school a unique code that they will use in the logging in into their accounts. In terms of support the department offer assistance in areas that aren’t clear to the school headteachers like school inter-transfer.

### Networking

The Department sets up and maintains the ministry of education networks to support effective and efficient communication within the organization locally and within the wide area network with satellite offices in the process providing a platform for deploying unified communication tools. Through this, the Department has created solutions that allow secure external client log-in and contribution multi-channel remittance including using mobile money.

### Database management

The ICT department created and maintains a data system that collects, stores, manages, secures and assessable data from anywhere when the school headteachers are. This database is used in storing student NEMIS information.

### Security

The ICT systems manage confidential and large data volumes that need information security. IT infrastructure and corporate data against external and internal attacks from viruses, cyber criminals and other threats that may likely attack the organization confidential information and exposes them to unwanted personnel.

### Support

In conformance to the ever-changing technology, the ICT department makes sure that its employees make the most use of the ICT resources that it provides and also ensures availability of technical support at all times. The technical teams issue out and maintain ICT equipment, install software, man the helpdesk through continuous user support, offer self service facilities on the company’s intranet and most importantly provide basic ICT training. Currently, the support team is rolling out biometric technology in the ministry to enable the rollcall taking using fingerprints.

## **Major attachments day-to-day assignments**

During my 10-week internship period, broadly, my work included but was not limited to the following routine.

* Helping in NEMIS program for user password reset and other related issue.
* Inventorying and marking ICT equipment requiring repair and maintenance.
* Undertaking diagnostics on faulty ICT equipment.
* Software installation and updating of expired software.
* Dispatch of repaired and maintained ICT equipment to their owners.
* Assembly of new computer parts that were to be used in the school food prog

## **My key objective for the attachment period**

Being given an attachment opportunity at ministry of education I personally had some of my objectives to attain for me to give back to the department for the chance given. Some of my objectives are: -

1. To learn a new skill each day of my attachment period.
2. To apply the skill that I was equipped with from my lecturers.
3. To build a good image of myself and that of the world class university am coming from.
4. To learn how business is taken during the working shift and what is required of me when I get to the industry.

## **Skills gained during the attachment**

1. NEMIS system.

NEMIS system is a system used by ministry of education to capture and store the data of student and its a online system. I was able to learn to interact with its interface and help the department on support when schools headteachers called for assistance like password recovery, adding new students to the system etc.

1. IFMIS installation

IFMIS is a software used by accountants to track expenditure and money flow. During my attachment period I was lucky enough to come to interact with system and learn to install the system to computers the best way to bypass the network proxy.

1. Removing and adding computer to a domain.

In the organization their data in store in a remote location that can be assessed by authorized personnel in the organization. Sometimes the password assigned to the officers expires and needs renewal which the system admin was responsible in changing but when it fails we had to remove the computer from the domain. This allowed the owner the work on its fails locally.

1. Printer diagnosis

Being at the department gave me a chance to interact with different sort of printers that I had not interact with. Form this and the help of my supervisor and colleagues, I was able to acquire new skills to operate and even diagnose this printers.

# **CHAPTER THREE:**

# **EVALUATION OF THE ATTACHMENT PERIOD**

## **How I was able to overcome technical challenges**

* **Accountability**

Through arising incidents, Mrs. Agnes helped to reinforce the need to issue out the correct accessories for repair equipment through proper labelling and recordkeeping. This was after a user’s laptop charger was not marked during reception.

* **Offline Printers**

To solve the perennial problem of printers constantly going offline and unpairing from the network, I opted to restart the printers failure of which I connected them directly to the printer using a USB cable.

* **Continuous learning**

In a quest to maximally benefit from the industrial exposure, I constantly posed questions to my superiors and from their answers and explanations was able to continuously learn on the job.

* **Support video helpdesk incoming calls**

During my internship tenure, I managed to support users in distress by giving them step-by-step instructions to help them solve their ICT related problems particularly when I was alone in the office.

## **Successes and challenges experienced during the attachment**

### Success

I was able to gain more confidence from interacting with different kinds of people. This has given me the courage to interact with new software and system confidently and to learn them more easily and efficiently.

I also got to understand more the essence of accountability for every activity that is carried out in the work station.

I got to understand the difference between the various makes of machines and know their advantages and their setbacks.

### Challenges

The challenge that I experience during the course of my attachment was interacting with software that I had never interact with like installation of IFMIS software and setting the correct proxy setting to allow the user to connect to internet.

## **RECOMMENDATION.**

### Ministry of education

I would simply describe my attachment period in Ministry of education as a great learning experience. It gave me an opportunity to learn how the day to day operation in an organization is conducted and to related with officers. I also learnt how the network is set up in an organization and laying them in the same domain. In particular I learnt a lot about user support, computer networking as well as hardware maintenance.

In addition, I had the opportunity to work in a busy environment therefore I’m convinced that the skills I have acquired during my attachment will be of great help when I finally graduate and enter in the job market.

I once more thank all who have helped me through my attachment.

May God bless you all.

### Meru university of science and technology.

I simply describe Meru University as a place that nurtures someone to an holistic individual, through the lectures that I experienced from my lecturers I have applied them in my attachment daily duties at Ministry of education from the networking knowledge and practical’s that I received actually I have seen them applying in the field of ICT department at my place of attachment. More so the knowledge of computer Maintenance and support.

Thanks to Meru University Lecturers May God Bless you ALL.