**MOI UNIVERSITY SCHOOL OF INFORMATION SCIENCES**

**ATTACHMENT REPORT**

**INF 490**

**BY**

**ONDIEKI OGARO STEPHEN**

**IS/1028/13**

**ATTACHED AT: SYSTECH AFRICA LIMITED**

**A REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD IN DEGREE IN BACHELOR OF SCIENCE INFORMATION SCIENCES.**

Contents

[DECLARATION i](#_Toc492580948)

[ACKNOWLEDGEMENT ii](#_Toc492580949)

[LIST OF ABBREVIATIONS iii](#_Toc492580950)

[ABSTRACT iv](#_Toc492580951)

[SECTION 1: INTRODUCTION 6](#_Toc492580952)

[WHAT SYSTECH LTD STAND FOR: 6](#_Toc492580953)

[FUNDMASTER Xi 8](#_Toc492580954)

[Benefits Administration 8](#_Toc492580955)

[Financial Accounting 8](#_Toc492580956)

[Investments & Assets Management 9](#_Toc492580957)

[Member Self Service 9](#_Toc492580958)

[Workflow Management 9](#_Toc492580959)

[Reporting & Business Intelligence 9](#_Toc492580960)

[SECTION 2: ATTACHMENT EXPERIENCE 11](#_Toc492580961)

[SECTION 3: SKILLS ACQUIRED 12](#_Toc492580962)

[SECTION 5: CONCLUSION AND RECOMMENDATIONS 16](#_Toc492580963)

[SECTION 6: REFERENCES 17](#_Toc492580964)

# DECLARATION

**Declaration by the Student**

This report is my original work and has not been presented to any other examination body. No part of this research should be reproduced without my consent or that of Moi University

Name…………………… …………..…Sign…………….…………Date……….……....

# 

# ACKNOWLEDGEMENT

I would like to thank and express my heartfelt gratitude to the entire staff SYSTECH AFRICA LIMITED headed by MR. NJOROGE (CEO) and the Project manager Mr. Timothy Mukoba for the support and care they accorded to me during the attachment period, despite their busy and demanding work schedules. I also wish to acknowledge my host supervisor madam Tabith Kaguai and my school supervisor Dr. David Gichoya for her assistance and guidance during the attachment period and my family too for the financial and emotional support.

# LIST OF ABBREVIATIONS

**Term Meaning**

**ICT** Information Communication Technology

# 

# ABSTRACT

The purpose of this report is to highlight knowledge, skills and experience gained and challenge experienced at Systech Africa Limited where I was attached for a period of 90 days from from 10th January, 2017 to 8th May 2017.

# SECTION 1: INTRODUCTION

**BACKGROUND INFORMATION**

After 4 years of my course work in Bachelor of Science information sciences, I was required to undertake an industrial attachment for 8 weeks where therefore I secured an attachment at Systech Limited. This document contains my attachment experience at SYSTECH AFRICA LIMITED for the last 8 weeks where I have been attached.

**BACKGROUND INFORMATION ABOUT SYSTECH AFRICA LIMITED**

SysTech was incorporated in Kenya in 1998 with its mission being to provide ICT services to the African market. Their strategic intent is to become the number one provider of ICT solutions, custom software and networking solutions that enhance our customers’ competitiveness by:

* Enabling them to service their customers effectively and efficiently
* Providing them with information to enable them make strategic decisions
* Assisting them in coordination and control of their strategic initiatives

SYSTECH LTD is a regional wide pure IT Enterprise organization offering key solutions in the following areas:

* Pension Administration Software
* Data Center solutions
* Software Testing and Quality Assurance
* Enterprise Application Integration
* Unified Communication

SYSTECH brings together the world’s best technologies with a product range that allows organizations flexibility and scalability ensuring peace of mind in Data Management and availability

The management skills, technical expertise and commitment to clients ensures that they find areas of service provision and synergies with data driven organizations committed to ensuring first class business operations

SYSTECH’s flagship product, FundMaster Xi is the No. 1 Pension and Benefits Administration system in the region with installations in Kenya, Uganda, Tanzania, Zambia and Ghana.

# WHAT SYSTECH LTD STAND FOR:

#### Vision

To be the Leading and Innovative ICT Solutions Provider of Choice!

#### Our Mission

SysTech is committed to provide innovative ICT business solutions that meet dynamic organizations needs using state-of-the-art technologies, industry best practices and motivated human resources

#### Core Values

* **Innovation:** Innovation is the heart of SysTech!, We strive to continually innovate in everything we do– from products, processes, services and technology.
* **Alignment and Accountability:** We accept responsibility for our actions. We make and support business decisions through experience and good judgment.
* **Customer Service Excellence:** We are dedicated to satisfying customer needs and honoring commitments that we have made to them.
* **Teamwork:** Our team is supportive of each other’s efforts, loyal to one another, and care for each other both personally and professional
* **Balance:** We are flexible, helping team members strike a healthy work and life balance
* **Integrity:** We act with honesty and integrity, not compromising the truth
* **Passion for Results:** We show pride, enthusiasm and dedication in everything that we do. We are committed to delivering high quality products and services
* **Respect:** We treat our team members, customers and partners with mutual respect and sensitivity, recognizing the importance of diversity. We respect all individuals and value their contributions
* **Reliability:** Prompt delivery of services and products
* **Quality:** High quality of products and services

The address of SYSTECH AFRICA LTD is as follows:

Mayfair Business Centre  
Off Parklands Road, Westlands  
1st Floor Wing D

+254 20 – 3742207

+254 20 – 2115993

[info@systechafrica.com](mailto:info@systechafrica.com)

Westlands, Nairobi

**SYSTECH LTD Products**

# FUNDMASTER Xi

The Most Advanced Pension Administration and Investments Management System in the region. Caters for the core functions of Retirement Benefits and Pension Scheme Administration for both private and public employee retirement organizations. Core Modules include:

* Benefits Administration
* Financial Accounting
* Investments & Assets Management
* Member Self Service
* Workflow Management
* Reporting & Business Intelligence

FundMaster Xi Pension Administration System provides a flexible, extensible architecture and tools designed to accommodate the one-size-does-not-fit-all landscape of today’s retirement programs. Supporting the regional pension funds and administrators for over ten years, FundMaster Xi is a proven solution that has gone through a process of complete re-engineering based on customer feedback to keep current with the industry needs.

**FUNDMASTER XI IS MADE UP OF SIX INTEGRATED MODULES**

## Benefits Administration

The Scheme Setup and Administration module is at the heart of FundMaster Xi pension administration and has the below components:

* Scheme Setup – this provides the tools for setting up new scheme according to trust deed and rules and further for the configuration of member benefits
* Member Register contains the entire member listing together with their contributions
* Pensioner Register includes all scheme pensioners. Pension payment management is done here

## Financial Accounting

The accounting module features a fully-fledged accounting package that has functionalities to handle benefits and claims processing, statutory compliance, pension payroll processing and financial accounting. It features the following sub-modules

* Accounts Receivable
* Accounts Payable
* Cash Management
* General Ledger
* Fixed Assets
* Budgeting
* Statutory Statements

## Investments & Assets Management

Manages the investments and reports on the investments as per the various investments classes, including Real Estate, Equity, Government Paper, Commercial Paper and Corporate bonds, Offshore Investments, Long Term Loans, Fixed Term Deposits, Endowments e.t.c

* Keeps the scheme Investments Register
* Performs Investments Performance Monitoring
* Tracks any movement in the investments portfolio
* Performs tactical/strategic portfolio allocation
* Performs unitization of investments
* Manages the investments and reports on the investments as per the various investments classes

## Member Self Service

Some of the Benefits of Member Self Service (MSS) My Pension Online Portal to an already registered member is they will be able to:

* View (Personal) and Update Contact information
* View their (and totals) Contributions History
* Perform a 'What-if-Analysis' to calculate take home in case of an unprecedented eventuality
* Make Additional Voluntary Contributions via Mobile and Online Payment

## Workflow Management

FUNDMASTER Xi Workflow management system aims at distributing work by automating core processes in Xi e.g. movement, payroll processing etc.

This is achieved by routing tasks and documents to the users responsible for working on them, through sequential progression of work activities. The workflow system has been designed based on the Decision-chain process model that uses the milestones and decision points to map out the processes.

## Reporting & Business Intelligence

FundMaster Xi is supplied with standard reporting facilities to cover requirements that are common to most users including:

* Scheme level reports for pension review and valuation extract
* Member reports on individuals or a range of members
* Retirement reports, including members approaching retirement or state pension date
* Audit trail reports
* File and letter reports

**SYSTECH’s Aim and Achievements**

Systech are committed to provide innovative ICT business solutions that meet dynamic organization needs. Currently Systech LTD is in partnership with oracle, IBM, Cisco, Nexans, Vidyo and ISTQB. They have major clients in Kenya and even outside Kenya like Central Bank of Kenya, Central Bank of Uganda, Central Bank of Tanzania, Central Bank of Ghana, Kenya power, Kengen, UAP Kenya and UAP Uganda among others. They are aiming at dominating East and central Africa and even Africa and the world by providing world class system solutions.

**The Corporation has the following departments:**

Human Resource Department

Department of career development

Department of finance and procurement

Department of software development and testing

Department Security and Networking

**Department Attached**

I was attached to the Department of software development and testing.

Name of Industry based supervisor: **Tabitha Kaguai**

Designation: **Human Resource Manager**

Telephone contact: **+25420-3742207**

**+25420-2115993**

Name of school supervisor: **David Gichoya**

Date of assessment : **28/4/2017**

Contact : **0722836972**

# SECTION 2: ATTACHMENT EXPERIENCE

**Objectives of the attachment**

* To get hands on experience to the students in dealing with day to day problems in a current day I.T. environment.
* To help students gain professionalism in their conduct and how they interact with staff
* To provide insight to students of the practical aspect of I.T. in an institutions environment.
* To acquire skills on alternative ways of solving problems that may have not been covered in the normal course work.

**Activities I was involved in:**

* installing and configuring computer hardware operating systems and applications;
* Learning and application of the basics of the Java programming language.
* Learning and application of Fundamental elements of OOP and related Java features
* Learning Threads concepts and there applications in java
* Learning and aplication of Exception handling in java
* Learning and application of Java Database Programming (JDBC)
* Learning and application of Advanced Java EE – Web & Business Components Development
* Learning and application of Java Server Pages - JSP
* Learning and application of Resource creation
* Learning application and Configuring a CDI Application
* Learning and application of Java API for WebSocket
* Learning and application of Java Transaction, Persistence & Object Relation Mapping (ORM)
* Learing and application of Best Programming Practices and techniques
* ODI training and appplication in the real world
* Learning and application of accounts and investments
* Learning and application of pension concepts
* Learning and application of oracle business intelligence publisher
* Installation and configuration of oracle databases
* rapidly establishing a good working relationship with customers and other professionals, such as software developers;
* Testing and evaluating new technology;
* Installation and configuration of fedora software

# SECTION 3: SKILLS ACQUIRED

**Course specific Skills learnt**

1. Computer maintenance:-

On this are I learnt more about computer maintenance activities such as:-

* Precautions and procedures followed during disassembling and assembling of computers
* Disk check-ups and scanning
* Configuring antivirus and firewall settings.
* System upgrading.
* Computer servicing and cleaning (preventive maintenance).

1. Installation and configuration of operating systems

On this field, I learnt how to install and configure different operating systems like:

1. Fedora
2. Centos
3. Ubuntu
4. Installation and configuration of different database platforms

On this topic I learnt how to install and configure the following databases:

1. Oracle database
2. Mysql databases
3. Mssql database
4. Setting of java development environment

I learned how to install the following java development enivronment tools:

1. Installation of jboss server
2. Installation of Java Development Kit (JDK)
3. Installation of Intellij idea
4. Installation and configuration of oracle and mysql databases.
5. Learning how to use maven repository
6. Learning how to use git repository
7. Database managemt

ICDC uses oracle database for their data storage and organization.

1. User support

On this area I learnt more on how to approach user problems and how to handle them.

1. How to evalaute systems demos by vendors
2. testing and evaluating new technology  
   this involved testing any new technlogy on its efficieny and useability before it gets deployed for use by the users. It also enabled me to be able to handle support request regarding the same.
3. How to monitor and maintain computer systems and networks;

**Other skills Acquired**

* Communication skills enhancement.
* Ability to manage and deal with different needs from different clients.
* Enhanced my presentation skills and customer relationship. Through letter writing and e-mail processing.
* Leadership skills being given an opportunity to lead the software development team

**Knowledge acquired**

* Ability to manage and deal with different needs from different clients.
* I acquired solid knowledge in java EE development
* Understood and appreciate different working region and cultural differences.
* Broad view of organizational growth and ability to meet target
* Deeper and better understanding of marketing dynamic in line with increased competition and technological changes.
* Understood and appreciate different working region and cultural differences.
* Deeper and better understanding of marketing dynamic in line with increased competition and technological changes.

**Observation and Critiques**

* The willingness of some personnel to offer assistance whenever needed and the willingness to be able to teach you more.
* I did observe that teamwork played quite a huge role in attaining most of the SYSTECH’s mandates. It was equally important as the ability to work independent. But the goal must be to find a way to combine it in the right way.
* Most of the employees in SYSTECH LTD are committed to their work. Most of them would come to work early, leave late in the evenings and at times come to work during the weekends in order for them to meet their deadlines. This is something that I feel few employees in any given organization would do.
* Interns are given the much needed supervisory support that goes beyond work related issues. This is so given the fact that a supervisor would once in a while spend at least part of his/her private time to talk with an intern over issues that touches on personal life. This was very encouraging.
* The unwillingness of some of the personnel to offer assistance to the interns when needed.
* Co-ordination between departments was strained.
* Some staffs have low opinion of the interns so they are not accommodative to advice.
* Bureaucracy involved in some processes e.g. procurement delayed the execution of some duties.
* I also noticed that the corporations’ information security policy had not been updated for some time.

**The possible solutions to the challenges observed are:**

* Corporation should also ease some regulations to enable some internal tasks to be executed in a timely manner.
* The institution should consider getting more manpower to efficiently handle its tasks e.g. help desk personnel
* The information security policy should be revised to include advances in technolgy e.g. the proliferation of mobile devices and means of sharing information.
* Teamwork should be emphasized to improve co-ordination among departments.

# SECTION 5: CONCLUSION AND RECOMMENDATIONS

**Conclusion**

Industrial attachment is a very important tool in training of students. It gives the trainee an exposure to what is happening in the real life situation and therefore prepare them to face the challenges in their future endeavours.

The industrial attachment has added value to my work life in that and confidence.

I have gained critical practical knowledge of the courses I undertook while in college e.g. software development using java EE, system evaluation, preventive maintenance, and user support and how to carry it out and many more.

It has been a very educative process. I learnt how to interact with people in a professional setup, and really boosted my confidence.

The program should therefore be maintained and if possible, the period be extended.

**Recommendation**

From my experience in working at SYSTECH LTD, the following are some of the recommendations I have for the company and the school of information science:

1. There should be a laid down procedure for monitoring workers as well as some motivational packages for workers who establish them self well.
2. I also recommend that SYSTECH LIMITED invest more in training their staff in order to improve their skills in their execution of duties.
3. The school should consider hands on training for the students since Most of the things we learn in school are theory based and when you get to the field, performing the practical aspect of it becomes a bit challenging.
4. The school should also consider extending the period of attachment by a month or two to give the student ample time to gain a practical bit of much of the things they learned in class.
5. The institution needs to do prior attachment arrangements for the students to ease the big hustle of acquring attachment on yourself which made some students settle for organizations not on their line of study.

# SECTION 6: REFERENCES

<http://www.systechafrica.com>