

Report on the Student Exchange Program at the Technische Universität Dresden, Germany September 26th, 2018-January 12th 2019

Name of participant: Daudi Nkubile

Name of home institute: University of Dar es Salaam, Tanzania

Academic Status: Master Student

1. Introduction

An overview of the DAMOC/ERASMUS+ student exchange program that took place at the Technical University of Dresden, Germany from 27th September 2018 –12th January 2019. The exchange program comprised of five students, of whom two came from the University of Dar es Salaam (Tanzania), two from Nelson Mandela African Institute of Science and Technology (NMAIST) Tanzania and one from the University of Pretoria (South Africa).

2. Activities performed during the training

2.1. Visiting Lectures

During the exchange program, I managed to attend the lectures and seminars of the following modules:

- Security and cryptography
- Electromechanical Networks
- Real time systems and
- Basic Germany language

2.2. Study tours

The following study tours were visited during the exchange program:

2.2.1 Innovation Power Plant-DREWAG, Dresden

DREWAG is the Dresden based electricity generating company that employ Combined Heat and Power (CHP) technology and battery storage in their Innovation Power Plant. During the visit we attended presentation and discussion where we managed to learn how electricity and heat is produced and fed to the local electricity and heat grids respectively and how the technology of battery storage is employed in storing reserve electric power.

2.2.2 Smart Meter Manufacturing Company (KIWIGRID)

This is a Dresden Based Company that develops software for Smart Energy Meters. During the visit we attended presentation on various activities of the company specifically on Smart meter manufacturing process and operation.

2.3. Participating in the group research work on privacy and security on the smart grid

I participated in the group research work with the title *An Overview of Privacy and Security in the Smart Grid: The case of Tanzania and South Africa*. During the research we managed to learn the technological and operational gaps in the fully implementation of smart grids in both Tanzania and South Africa. Additionally through this group research work I managed to deepen my research experience.

2.4. Scheduled progress meetings with supervisors

I attended and participated in scheduled meetings organized by DAMOC Coordinators. During these meetings an introductory presentation on the Privacy and Security on the Smart Grid was presented. Also through these meetings we held discussions on drafts of research work and worked on comments observed.

2.5. Attended Cultural events

Cultural events played a key role in making life more fascinating and enjoyable in Dresden. I managed to attend several cultural events organized by the Studentenwerk Dresden and the TU Dresden International Office. These events did not only make to enjoy my stay in Dresden but also helped me to meet and establish contacts with international friends. Some pictures taken during the events are attached below.

3. Conclusion and Recommendation

Student exchange programs are important means of bringing together students from various diverse and backgrounds in order to learn and share a wide range of knowledge and experiences. I would recommend more implementation of more student exchange programs in the coming years.

4. Acknowledgment

I would like to extend my sincere appreciation to the ERASMUS+/DAMOC Project team for granting me an opportunity to participate in the exchange. Special thanks to the team from TU Dresden for guidance and support during the program. Prof. Cuthbert Kimambo and Dr. Joseph Kihedu are appreciated for nominating and recommending me to participate in the exchange program. I would like also to acknowledge the support and company of my fellow participants in the exchange program: Deogratius Mariwa (University of Dar es Salaam, Tanzania), Joyce Martin (Nelson Mandela African Institute of Science and Technology, Tanzania), Lawrence Nehemiah (Nelson Mandela African Institute of Science and Technology, Tanzania) and Antoinette Nzeba (University of Pretoria, South Africa) for their invaluable presence that made Dresden my second home.

Photos of Selected Events in Dresden



Figure 1: X-mass in the tram Event



Picture 2: Get together dinner event



Picture 3: With my Colleagues enjoying a Sunday walkout



Picture 4: Disco on Ice Dresden



Picture 5: Visit at the Wall of Berlin



Picture 6: Visit at Mercedes Benz Arena in Berlin