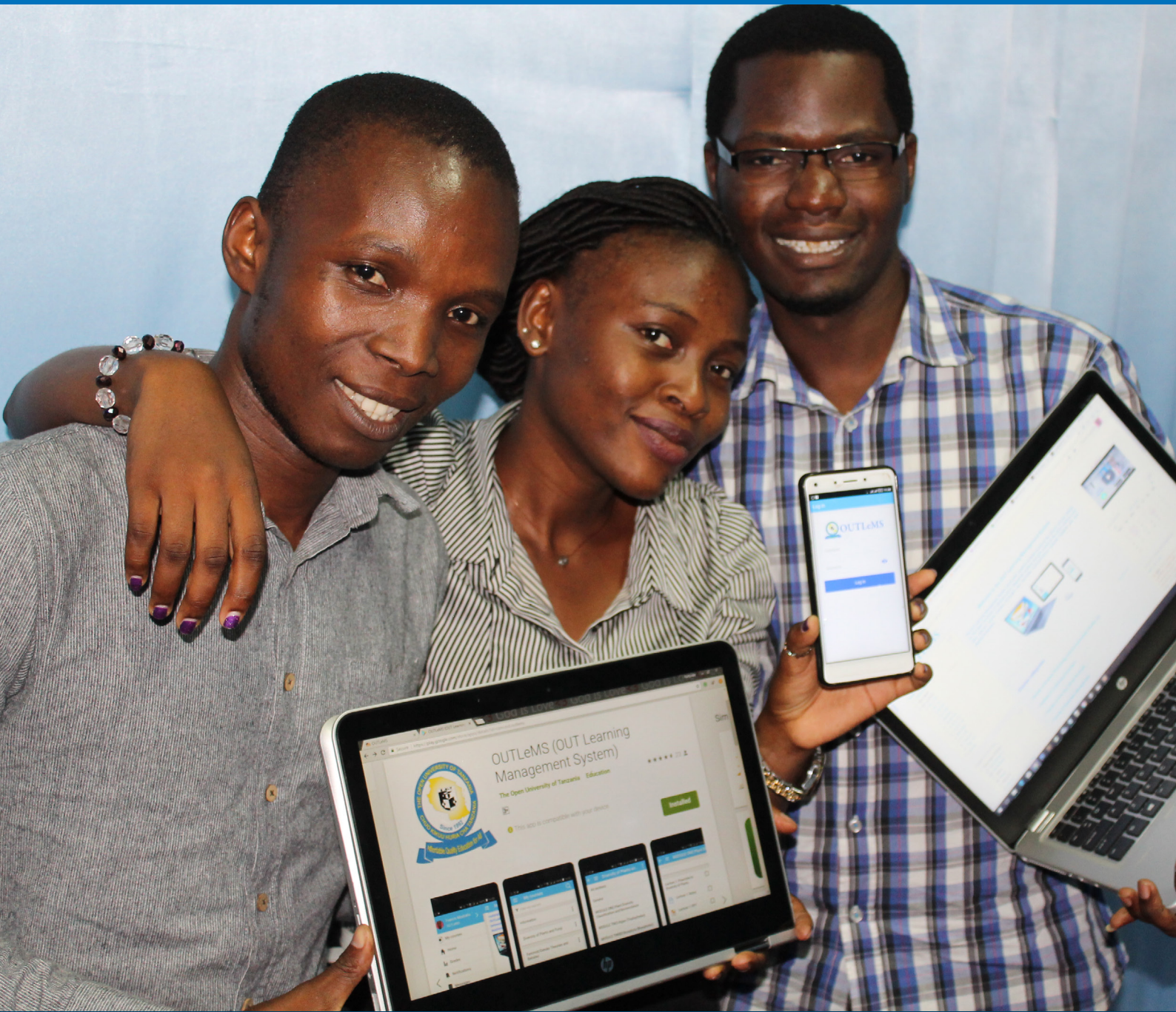




# IEMT Newsletter

ISSUE NO. 004 2018

APRIL 2018



Key Topics: Ready for the Inputs

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# Editorial



Ezra Kaimukilwa

Dear Reader, welcome again to the fourth edition of the Institute of Educational and Management Technologies (IEMT) Newsletter. As usual this edition captures major ICT related activities conducted in the Institute and the University through out 2017.

As one of well established institutes of The Open University of Tanzania, IEMT is responsible for integrating ICT in teaching, learning and community services. Being an open and distance learning (ODL) Institution, OUT relies extensively on ICT as a mode of teaching and learning delivery and this has been possible with the dedicated support of the IEMT staff and the University as a whole.

OUT's vision is to become a state-o-the-art ICT facilitator in the delivery of affordable and quality education for all through open and distance learning, dynamic knowledge generation and application. IEMT provides ICT services to both OUT students, staff and the general public.

In this issue we have covered the development of OUT-LeMS (MOODLE) mobile application, high quality of consultancy services, common uses of graphic design, issues of human resources management, and ICT for persons with hearing and visual impairment. Others are, upgrading ICT infrastructure for improved access to electronic resources, ICT quality as vital to business growth, intranet communication for staff, and many other articles related to ICT development at the University.

I wish you a pleasant reading.

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# Message From the Director



Dr Edephonc Nfuka

The Institute of Educational and Management Technologies (IEMT) which is a unit that manages Information and Communication Technology (ICT) at The Open University of Tanzania (OUT) and provides short ICT courses to the public welcomes you to peruse the IEMT Newsletter that disseminates information on various matters of ICT. I wish to take this opportunity to thank all who have provided great assistance and put energy to the growth of ICT services at OUT and short courses we offer to the public. The Institute has made good use of new and appropriate technologies to ensure a smooth and trouble-free user experience of which some are covered in this newsletter. This development is the outcome of hard work and commitment of the staff concerned and IEMT and OUT managements. As always, the easiest way to access OUT information is through OUT Website ([www.out.ac.tz](http://www.out.ac.tz)) that over the time has been improved to portray better OUT services on offer to the public. Moreover internally we have an intranet for internal communication (<https://intranet.out.ac.tz>) and ICT helpdesk ([ict.helpdesk@out.ac.tz](mailto:ict.helpdesk@out.ac.tz)) for OUT community to report ICT related queries.

I wish to thank all stakeholders who have shown great interest in using the ICT services provided by the Institute at HQ and throughout all Regional centers in Tanzania and beyond. be on connectivity, information systems and/or e-learning including newly established ones such as ICT studio, OUTeLMS Moodle mobile, OUT e-journal system, and Moodle live chart support. The institute also provides short ICT courses and we welcome the public and OUT long-term students to attend these courses offered at OUT centers where IEMT provides ICT training: namely Dar es Salaam, Mwanza, Kagera, Shinyanga, Singida, Manyara, Kigoma, Katavi, Rukwa, Mbeya, Iringa, and Mtwara. These short ICT courses range from end user, professional, to tailor-made courses. In the period covered by this newsletter, 603 students had been trained on these courses. Also, we have introduced 14 new courses which are Advanced Microsoft project, Digital Marketing and Social media strategy, Basics Microsoft project, Graphic design and Website development. Others are Computer maintenance and repair, Data analysis with SPSS, Advanced computer applications, Technoprenuership, Get connected, and IT Essential I & II. Our aim is to become the best one-stop center for your ICT solution, be on integration of ICT in teaching and learning, research and publication, and consultancy and community services as well as ICT training and Consultancy by IEMT itself to the general public. As you read this issue that covers various ICT matters we continuously wish to welcome your views or any impediment encountered at [ict.helpdesk@out.ac.tz](mailto:ict.helpdesk@out.ac.tz)

Once again you are welcome and enjoy reading this Newsletter.



The Open University of Tanzania through Directorate of Human Resources Management has allowed Human Resources Management Officers (HRMOs) and Administrators (AO) of all major units in the University to oversee the administrative functions in those units. The administrator in the Institute of Educational and Management Technologies (IEMT) is responsible in supporting administrative activities including recruitment, deployment, discipline, planning, development and appraisal, welfare, emoluments, motivation and other administrative services. Due to the fact that the demand for various types of services that the institute offers has increased, it follows therefore, that the institute requires proper management and guidelines from HR point of view. The institute has also witnessed an increase of interaction with many service providers through contracts engaged.

The administrator's office is doing its best in providing strategic HR management and administrative services to ensure all HR and administrative functions in the institute are handled properly and where the need arises, they are forwarded to the Directorate of Human Resource Management (DHRMA) for further guidance.

For IEMT to perform its activities to the fullest there are various departments and sections whose main objective is to make sure issues are done and implemented in time, so as to make IEMT move forward both administratively and technically.

IEMT is headed by the Director (DIEMT) Dr. Adelphonce Nfuka, under him are:

1. Information and Resource Management Department (IRM), **Mr. Stephen Lukindo**
2. Service Control and Planning Department (SCP), **Ms. Luly Bulili**
3. Training and Consultancy Department (TC), **Mr. Simon Monko**
4. Educational Technology Departments (ET), **Mr. Shadrack Mbogela**
5. Chief Information Security Officer (CISO), **Mr. Bariki Kamara**
6. Training and Marketing Section, **Mr. Abdul Aziz Mnyengema**
7. Consultancy Section, **Mr. Emmanuel Thomas**
8. Smart Card Section, **Ms. Jamila Mfaume**
9. E-Learning Development and Multimedia Section (EDMS), **Mr. Hamad Kassim**
10. IS Development and Administration (ISDA) Section, **Mr. Josephat Mathayo**

# Upgrading ICT Infrastructure For Improved Access To Electronic Resources



Stephen Lukindo

Network infrastructure is the backbone on which ICT services and products are running. Most of today's businesses rely heavily on the usage of ICT to leverage business operation and return of investment. The Open University of Tanzania (OUT), through the Institute of Educational and Management Technologies (IEMT), has not been left behind. It has continually embarked on improving the ICT infrastructure at HQ and Regional Centres (RCs) in order to improve accessibility, reliability and availability of support information systems. Currently there are more than twelve (12) information systems used for academic and administrative purposes.

The ICT infrastructure has been growing gradually in line with budgets available resources. In the last four(4) years, OUT has realized growth in the following areas :

- Installation of wireless access points in 29 Regional Centres. Each RC has least two(2) access points.
- Increase in ICT computer labs for community to 13
- Introduction of new systems such electronic file management system for attending office file remotely ie anywhere anytime, Installation of human resource management Information system for staff data management and Financial Management Information System.
- Revamped main website to meet user needs

## (a) Last Mile Links and Bandwidth upgrade in 22 Regional Centres

This project covered two areas; The first one the upgrade of last mile links or medium in 22 RC from copper to fiber. Last mile link is the connection between service provider and OUT RC. Fiber links allows for higher connectivity speed than copper media. Regional Centres involved in the project are; Mbeya, Singida, Simiyu, Dodoma, Iringa, Rukwa, Katavi, Njombe, Kigoma, Arusha, Geita, Pemba, Lindi, Tabora, Ilala, Ruvuma na Mtwara, Manyara, Kilimanjaro, Mara, Tanga and Zanzibar. Before then, other regions were already covered

ie Mogorogo, Kagera, Mwanza and Shinyanga. Secondly, the upgrade of media was also coupled with upgrade of Virtual Private Networ (VPN) bandwidth from 2Mbps to 5Mbps. This applied to all 22 Regional Centres as well.

## (b) Increase Internet Backup Capacity

Increase in bandwidth is normally coupled with increase in traffic. This prompted OUT to consider increasing the receiving end ie HQ capacity. As such the existing 6Mbps was upgraded to 30Mbps. This has created resilience and load balancing with existing bandwidth of 40Mbps from COSTECH/TERNET.

OUT is committed towards improving the ICT infrastructure in order to fulfill its mission of providing affordable quality education for all. It is our hope that these changes will enable our users to continue enjoying our services. More computer labs will be established in Regional Centres which don't have any like Dodoma. With the fiber in place, bandwidth in Regional Centres can be upgraded without incurring additional cost on infrastructure.

# Facilitation of E-Learning (MOODLE) Training to OUT Students'



Hamadi Kassim

Nowadays it is not possible to think about the teaching and learning process without associating it with the Information and Communication Technologies (ICTs). Actually, ICTs are present in all processes that involve.

OUT has since academic year 2016/2017 established blended mode of learning (OUT-LeMS), more emphasis was put on ICT services for enhancing teaching and learning at The Open University so that all students and teachers gain mastery in accessing the service.

OUT-LeMS (Moodle) represents one of the most widely used open-source e-learning platforms that enable the creation of a course and ensuring their access only to enrolled students, instructors and other users. This platform allows the exchange of information among users. This exchange depends on the roles of each user in the system such as Instructors, Students and Administrators.

For every new academic year, The Open University of Tanzania conduct orientation programme for all of its students around the country. The aim is to build them with capacity for blended mode and making them able to interact with their courses. For this academic year 2017/18 the training was conducted in 29 regional centres and the total of 2,998 students were trained to use OUT-LeMS. The OUT-LeMS has a number of services which can cater for or close the gap between the instructor and the learner.

**Lessons:** Here Instructor prepare a set of ordered topics summarizing the instructional materials and allow the access to students. Those instructional materials are usually created in digital formats and then uploaded to the platform. Web pages, PowerPoint files, word documents, video and audio files represent some examples of these Instructional resources.

**Assignments:** Allow students to upload assignment in text or files, allow teachers to collect work from students, evaluate the student's work and provide feedback including grades and comments.

**Discussion forums:** Represent a communication tool where students and teachers can exchange ideas by posting comments.

**Quiz:** Allows teachers to design and build quizzes with a variety of questions, with different types of answers, such as multiple choices, true/false, short answer.

**Survey:** Allows teachers to gather feedback from students using given questionnaires

# Information Security at OUT

*Bariki Kamara*



## Introduction

Information security has become one of the most important areas in the entire discipline of computing. We are dependant on computers today for controlling almost everything such as; keeping records of large data, generating students results, transferring large money between banks, telecommunication, electrical power distribution, health and medical fields, etc. We cannot negotiate security in these critical areas. As the complexity of the systems and the networks are increasing, vulnerabilities are also increasing and the task of securing the networks is becoming complex.

To maintain confidentiality, integrity, and availability of the information systems and ICT infrastructures, the Open University of Tanzania (OUT) via Institute of Educational and Management Technologies (IEMT) introduces ICT security policy and procedures to address security standards, procedures and guidelines which ensures that the appropriate security measures are enacted for all electronic data and information systems, as well as ICT equipments.

## Current Situation

Number of activities had been done to maintain confidentiality, integrity, and availability, of the information systems and ICT infrastructures from unauthorised access and intrusions, malicious misuse, inadvertent compromise and intentional damage or destruction. Although there are number of challenges in securing information systems and ICT infrastructures at the OUT but the technical team from IEMT working hard to tackle those challenges that arise.

Currently, OUT works closely with Tanzania Communication Regulatory Authority (TCRA) on improving information security at the university. Number of vulnerability assessments test had been conducted by TCRA for our information systems, the advise and recommendations that came from the report of TCRA are well implemented. Not only that but also our IP blocks are monitored by TCRA, so if anything happens that will cause malicious activity will be notified to take action immediately.

Information security management solutions are needed to integrate threat data from various security and network products to discard false alarms, correlate events from multiple sources and identify significant events to reduce unmanaged risks and improve operational security efficiency. There is a need for increased use of automated tools to predict the occurrence of security attacks. Further, OUT Management and technical team is prompted to focus and invest their time, efforts, skills and resources on security measures including capacity building to the technical team.

## Conclusion

# ICT Consultancy Services at IEMT



Luly Bulili

The Institute of Educational and Management Technologies (IEMT) has been living in High quality of Consultancy Services given to the entire Community and out of the Country. IEMT is proud of having a pool of professional programmers, Instructional designers, network engineers and technicians, capable of providing efficient and effective services, with the support of committed and dedicated management

To provide tailor-made solutions to our clients, IEMT is organized in business plan, and customer centric structure. Our software development initiatives are focused on software projects, product development and project consulting. Our industry-specific initiatives are based on the domain expertise we have gained in implementing projects in various industry segments. They answer all application areas and IT issues specific to the needs of the industry segments like manufacturing, logistics, retail, utilities, healthcare, education, networking and insurance amongst others. Our key competencies lie in Business Process Re-designing (BPR), Project Conceptualization and Execution, Enterprise-wide Solution development, Product Development & Maintenance, Systems Integration, Data migration, information management security etc.

The Institute has witnessed tremendous growth in terms of offering and supplying of various management information systems such as:

Student Academic Register Management Information System (Armis) which is a web-based information system for managing and processing student records at universities and other higher learning institutions. It is a modular system comprising of administration, admission, accommodation, academic, billing, timetabling, student, and online application it also can be integrated by The Learning Management Systems (LMS).

Human Resource Management Information System (HRMIS) is another type of Information System offered and supplied by IEMT. The HR system will change the way the Institution manage its vital assets. The system is highly user friendly interface and backed by many more features such as management of staff recruitment, training, appraisal, leave, promotion etc.

Library Management Information Systems (LIBMIS) are well designed systems which fulfill the need of our clients, these systems are based on KOHA and GEENSTONE, are open-source Integrated Library System (ILS). Their development is steered by a growing community of libraries collaborating to achieve their technology goals. They use a dual database design that utilizes the strengths of the two major industry-standard database types (text-based and RDBMS). This design feature ensures that the systems are scalable enough to meet the transaction load of any library, no matter what the size.

E-Learning Management Information System (LMS): In this project IEMT will use the most popular LMS used in most of the universities in the World which is called MOODLE. Moodle is a free, online learning management system enabling educators to create their own private website filled with dynamic courses that extend learning, anytime, anywhere. Whether you're a teacher, student or administrator, Moodle can meet your needs.

Electronic File Transfer Information System (EFTIS) is the most popular system which moves together with the growth of technology, it is also a web based application which helps in tracking the movement of files and other documents. The application enables the users to maintain a consistent watch over the movement of various important files and documents at different levels in the process of decision making.

The Examinations Databank Management System is an examination security which is the serious problem to most academic institutions and other examining bodies. To control the



possibility of having many people involved in the examination process IEMT designs EDBMS.

The Examinations Databank Management System is an examination security which is the serious problem to most academic institutions and other examining bodies. To control the possibility of having many people involved in the examination process IEMT designs EDBMS.

The Web Design And Development - Dynamic website and web-driven information systems including non- generic business applications and relational database.

The Customer Relation Management System - This system support online customer relations, customer tracking and billing. The system can support sales, marketing, customer care and inventory management. The system allows enhancing customer care services, online reporting and feedback system.

The Financial Information System is used for management of budget decisions, producing financial reports, control asset management and payroll control system. The system support real time and reporting mechanism and can assist in simplifying financial report.

Network Installation, Computer Maintenance and Repair Services: IEMT has expertise in LAN installations, documentations and maintenance in small and large office/buildings. IEMT carries out computer hardware and software repairs such as printers, desktop computers, laptops, photocopiers, scanners, projectors, Windows OS, open sources OS. Services for installation, maintenance and configuration are also provided from desktop to servers in windows, Ubuntu and Linux platforms.

Moodle Mobile Application system: The configuration of LMS for use in mobile communication devices is done by IEMT to ease the flexibility and access of learning materials in online and offline environment.

Online OPRAS: IEMT has seen the need of developing an online OPRAS in order to ease the work of filling and increase the quality of services delivery in Public Sector in Tanzania.

IEMT also offers other consultancy services related to ICT and organization development, such as network restructuring, ICT policies and master plan development, Business Process Redesign (BPR), Corporate Social Responsibility (CSR) and others based on user requirements.

Due to the high quality of services provided by IEMT, the Institute has done a number of consultancy services such as designed Students Academic Records Information Systems (SARIS) for the Institute of Rural Development and Planning (IRDP) – Dodoma; designed Human Resources Information Management Systems (HRIMS) for the Open university of Tanzania; designed Students Management Information Systems for Sokoine University of Agriculture (SUA); installed Local Area Network (LAN) at the Mwalimu Nyerere Memorial Academy Library; designed Students Academic Records Information Systems (SARIS) for Institute of Rural Development Planning Dodoma; designed Students Academic Records Information Systems (SARIS) for Moshi Co-operative University (MoCU); designed Students Academic Records Information Systems (SARIS) and Library Management Information System for Hubert Kairuki Memorial University; designed Students Academic Records Information Systems (SARIS) for Tumain University; supply and Installation of LMS and Online Courses Development for Ms-Training Centre For Development Cooperation (MS-TCDC Arusha); supply and installation of LMS and Online Course Development for Tanzania Institute of Banker (TIOB); development, installation and commissioning of integrated student's management information system for Law School of Tanzania. Enhancement of E-learning environment for ICT in learning and teaching based on Teachers Colleges for UNESCO-China Funds-in –Trust.

The Open University of Tanzania – Institute of Educational and management Technologies is living with experience of undertaking software development activities and providing different ICT training short and professional courses. The experience gained for over 19 years has enriched the Institute with knowledge and focus

# Well Equipped To Handle Business And Official Training



Michael Nchimpyangu

The Open University of Tanzania (OUT) Department of Training and Consultancy has continued to provide the facilities for business and in service training for different Institutions and Companies.

The attracting laboratory and good surrounding environment has continued to attract more organizations to do their works, training and meeting at our centres. Most of the training now days are either Computer Based Training (CBT) or Web Based Training (WBT), in both cases for the aim of training it requires a well equipped laboratory with computers in good condition, reliable electricity, Air conditioner and Projector. The OUT has all those necessary requirements for the smooth training.

Good internet connection has attracted more organizations to use our labs for Data entry works and others which need the internet connection.

Affordable price and free technical support throughout the training or meeting has also attracted many public and private organizations. We can accommodate, tailor made, in service training and workshops



Due to impressive expansion of offering ICT courses, The Institute of educational and Management Technologies (IEMT) has shifted NACTE courses to the department of ICT on July 2017, IEMT has managed to upload all certificates and Diploma courses in moodle plat form which helps our students to access online materials in any time.

Since the commencement of ICT Certificates and diploma courses in 2013 has remarkable fact that more than 3,453 students have successfully attended.

Recently graduation was in Singida on November 2017 where 120 students managed to graduate and another graduation was in Simiyu on February 2018, 41 students were graduated. These students will get an opportunity to join Diploma course in Computer science and Bachelor degree in Information and Communication Technology (ICT).

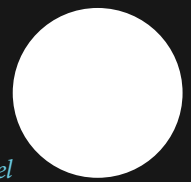


Staff from Jhpiego Tanzania doing data entry at our laboratory in Dar es Salaam, 13.12.2017.

Computer Applications, Graphic Design, Computer Maintenance and Repair, Data analysis with SPSS, Graphic design and Website development, Basic of Microsoft Project, Advanced Microsoft Project, Digital marketing and social media strategy, Instructional design, Multimedia Application in visual Technology and Introduction to mobile Application development with android. IEMT is committed and diligence to maintain the standard on offering massive short courses to the entire community. Come all to join hands in promoting ICT

# ICT Quality Is The Vital To Business Growth

Jane Bethuel



Ensure Availability, Accessibility, Stability, Security and Usability of ICT services at the Open University of Tanzania

ICT digitization has highly transformed OUT business of teaching and learning, consultancy and research. It has become the vital for further growth through various innovations resulted from applications of ICT to various services. In order to acquire the best from it, the issue of quality check is an important aspect that the Institute of Educational and Management Technologies (IEMT) is striving to achieve.

The quality criteria for the ICT services include minimizing destruction by ensuring services availability, stability, accessibility and security while increasing usability. The routine monitoring check is done to ensure all the criteria are well observed and where there is doubt some recommendations are provided to the respective units followed by a close follow up to ensure implementations.

IEMT has a pool of experienced professionals who are keen to monitor the ICT services by conducting some small researches to our clients both internal and external clients. The aim is to track the progress of each defined activity either in a form of a project or routine operations. Various tools and techniques are being used to collect and analyze data including the use of web 2.0 technologies such as Google forms and other available technologies. IEMT under the department of Service Control and Planning (SCP) have been doing monitoring in the area of ICT trainings, Network infrastructure, Availability of internet services, Information system accessibility and quality of data as well as data security especially in ensuring the backup system is available and working properly, existence of up to date ant viruses software and other spam control tool etc.

All existing ICT policies, strategies and procedures have articulated some procedures which are important to guide the ICT services monitoring process. One of the important

Other important guiding documents with quality handling aspect include the ICT policy and ICT Master Plan; E-Learning implementation strategies; Procedures for Procurement, Maintenance, replacement and disposal of ICT equipments as well as ICT security policy and procedures.

SCP department has also defined some mechanisms to ensure that any reported cases at ICT helpdesk are handled on time and a special attention is given to issues which were not handled for more than 3 working days. The staff responsible is required to provide a report on why the issue was not handled on time and will be guided to raise the request in case there is any requirement from OUT management to facilitate the completion of the task(s).

An engineer on duty who works after working hours and during weekends to monitor and handle any downtime of the ICT system and where the margin of an issue is higher than his/her capacity or the resolving time seem to be higher he/she inform the OUT community so as to be aware about the issue and plan accordingly.

The monitoring does not only end at ensuring availability, accessibility, stability and security but it is also supposed to check the usability of the ICT systems. This is because you can have best systems but if your stakeholders are not using the systems it is difficult to realize the value for money. So apart from tracking the services and check its quality IEMT is also planning to undergo an evaluation process to check the effectiveness, efficiency, impact and sustainability of the existing ICT services in order to assess the benefit of the invested ICT systems at OUT.

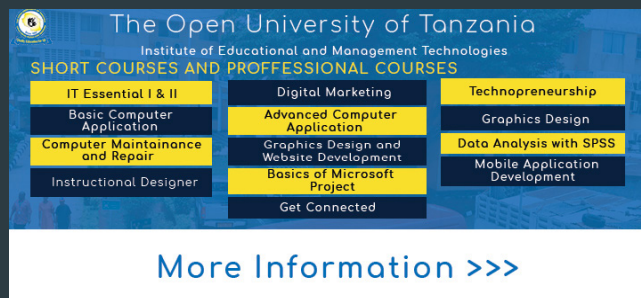
# Advertisement at IEMT



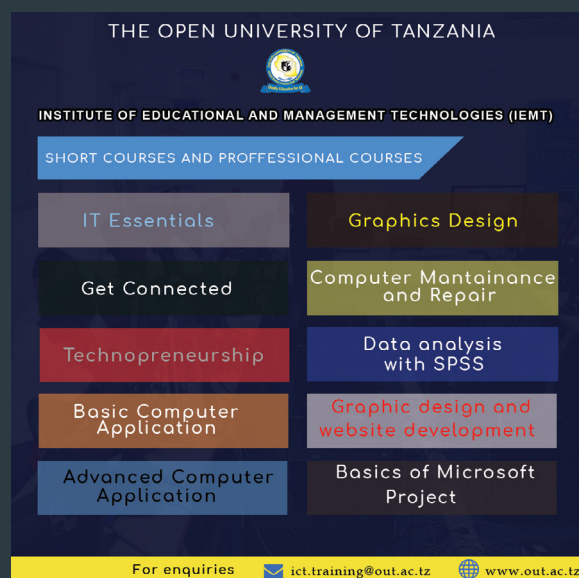
Elvis Mkeru

With the ongoing process of providing short and professional courses here at the Institute of Educational and Management Technologies (IEMT), number of students have been increasing year after year. There have been a way of advertising and marketing our short and professional courses like (*Digital marketing, IT Essential I & II, Basic Computer Application, Computer Maintenance and Repair, Instructional designer, Advanced Computer Application, Graphics Design and Website Development, Basics of Microsoft Project, Get Connected, Technopreneurship, Graphics Design, Data Analysis with SPSS and Mobile Application Development*) by designing of brochures that are given to students here at HQ and at different regional centers,

Designing of a banner that advertise our short and professional courses that was put to our Open University Website which will attract many students who are in different parts of our country. And this will help them to find an easy of getting information rather than travelling a long distance to regional centers.



Poster are also designed to advertise our short and professional courses and different services we provide like selling of books OCP 100(Introduction to Microcomputer Studies) in which these posters designed are put in different social media accounts like (Facebook and Instagram). All this advertisement that are done they really increase number of students here at IEMT with the use of technology.



# Intranet Communication for Staff



By who???

In making of a good use of ICT as a tool for development and innovation, OUT has finally developed an INTRANET portal, which is mainly for internal communication whereby only staff get access to the system and can be able to interact.

The port is accessible through <https://intranet.out.ac.tz/> where staff use their OUT email username and a default password of 12345678. We encourage changing the password after the first logging.

In this portal staff will be able to be access important forms and manual from different departments which include accounts, procurement and human resources, these forms will be found in section forms and manual tab. Through Intranet our systems will also be available all the time even if the internet goes down.

Moreover, OUT Policies, obituary, MOUs and almanac posted on our web will be accessed by the staff.

# OUT Going to Mobile Apps

Francis Mashalla



To the esteemed community of The Open University of Tanzania it's high time to introduce the development of OUTLeMS (MOODLE) mobile application (Android platform) which will serve the following:

- i. The easy on palm access of study materials,
- ii. Communication between students and their course instructors and among course students.
- iii. Filesharing and management
- iv. Online and offline access of study materials and many more features to explore with mobile technologies.



The project has been carried out by the Institute of Educational Management Technologies (IEMT), under the Educational Technology Department (ET), in the E-learning Development and Multimedia Section (EDMS). The project started early September 2017, and its major objectives are (i) to improve the access of study materials for OUT students and (ii) improve communication and engagement on the course of study. These objectives have been met with success. A big hand of congratulations to IEMT, ET and EDMS team.

## OUTLeMS Live Support

The solution to student and academic staff live support on OUTLeMS has now been innovated and placed on practice at The Open University of Tanzania. The OUTLeMS Live Support feature enhanced on our Learning Management System (LMS) aims at offering the best solutions on OUTLeMS challenges for both students and academic staffs. Currently the IEMT has tasked a dedicated instructional designer to solve issues related to OUTLeMS (Moodle). This solution has improved our students and academic staffs support services. It is an innovation to embrace and credit the IEMT, ET and EDMS team for tireless work. If you face challenge, fill your name, email address and your issue/challenge then "start chat" and the instructional designer on duty will respond on spot.

Can we help you?

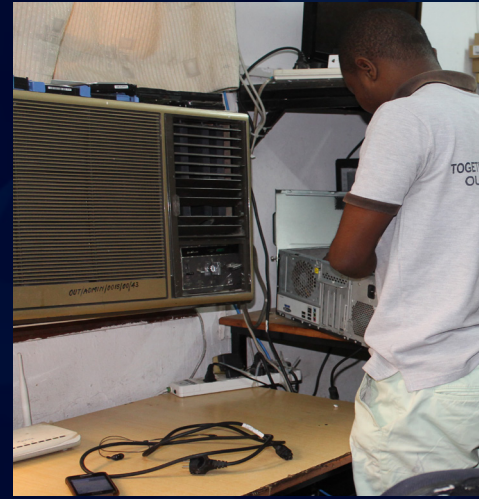
Thank you for contacting us. To serve you better please provide the following information:

[Start Chat](#)

# IEMT Activities and



*IEMT Network Section Staff working in their office at OUT HQ*



*IEMT Hardware Unit staff performing Workshop at HQ*



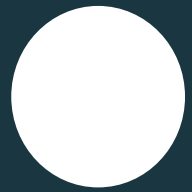
# Event in Pictures



*ing their duties in the OUT*



# ICT For Persons With Visual Impairment And Hearing Impairment.



*Dr Cosmas Mnyanyi*

The Open University of Tanzania started supporting individuals with disabilities in 1997 through support from David Anderson Africa Trust (DAAT). DAAT supported OUT by building three recording studios in which experts were employed to record materials for visually impaired students to participate in the distance teaching and learning process. Challenges were many including buying batteries especially in places where there was no electricity. Thus the cost of learning for persons with visual impairment remained higher. Similarly they had no training on how to keep the recorded tapes. The late 1990s experienced changes in technology where ICT was increasingly changing and the use of internet was increasing. It is at this time the Open University of Tanzania started looking for more partners with knowledge, skills, and technologies that support individuals with disabilities

visual impairment and blind people had access to ICT skills training



It was 2009 when OUT started looking for partners to support individuals with visual impairment to learn ICT. These partners included The Open University of Tanzania, Sight Savers (Tanzania), Tanzania Education Authority, The ministry of Education and the Tanzania League for the Blind (TLB). TLB was included because it is the Organisation for the blind people in Tanzania; we knew we had something to learn from them. In 2011 the training started to 15 persons and a trainer was hired by Sight Savers Tanzania from Kenya. Since then more than 200 persons with

The University has already built a website for visually impaired persons and since 2017 already the University has become a reference for persons who show an indication of losing their sight. In 2012 persons with hearing impairment and deaf started demanding the University to establish ICT training for the deaf. The University started surveying places where ICT was taught including at OUT and found that there were no institution delivering ICT services for deaf in Tanzania. The University started looking for partners whom we can work together.

In 2014 the University signed MoU with Deaf Aid Kenya and started ICT skills training after three staff hired by OUT received a three Month training in Kenya. In April 2015 ICT skills training to 15 deaf persons was implemented at OUT. Deaf Aid supported OUT in terms of purchasing 15 personal computers and skills



on how to teach the deaf. By 2017 over 100 have benefitted from the training. Three deaf persons have graduated from CISCO and all are now using ICT in their communication. For example at OUT we have staff who is deaf (Mr. Issa Mtiga) and a staff who is visually impaired (Mr. Clement Ndahani). In principle these two people cannot communicate as a visually impaired (a blind) cannot use sign language but can speak. Similarly, a deaf person cannot speak and cannot hear but can see. In this situation it is only ICT that can support them in communication.




## What are we doing at OUT?


At OUT we still offer ICT skills training to persons with visual impairment (blind) and the hearing impairment (deaf). The classes are ongoing and have been improved. In a class for the deaf they use smart Board. The idea is to make serious use of their sight so that they are not obstructed in any way. The class is also equipped with 15 computers and there is a place for workshop.

In 2016/2017 the University started developing a website with a view to create and communicate ICT sign language. In short, deaf person had not developed signs that represent ICT components. The development of a website for the deaf for the first time was done by Prajwal an Indian IASTE student who worked under Dr. Cosmas Mnyanyi for three months, the website can be accessed at <http://196.216.247.5:9999/>


196.216.247.5:9999



# ICT Signs



Computer
Devices
Cables
Processor
software
Windows





*These are success stories at OUT as deaf students do better in CISCO*

## Technology Used at OUT

For the visually impaired we use free software Non-Visual Desktop Application (NVDA) available online so that many people can use the technology without additional costs. It is a way to create inclusion and make persons with disabilities use the same equipment as others and thus can get assisted along the teaching and learning sessions. If they use different equipment with different technologies, it will be difficult to support them in need for help. For the deaf use normal computers but teach more sign language. Within the teaching and learning and exploration, our deaf students have discovered IMO Software available in mobile phones the best for communication purposes, including

communication with their families. . One of the most common uses for IMO is to connect with friends. When you and a friend have the IMO app installed, you can send quick text messages or you can have a full-on video chat. No matter which option you choose, you can check in with friends across the country or across the world in real-time. You can also share photos and videos of your life with friends who couldn't be there, but you can also share photos and videos of memories with friends so that they can share as well. As deaf use sign language then IMO has been identified the best in communication among deaf persons and deaf persons to the community.

## Numbers we can reach

As the Open University we can reach a large number of population. As of now we have only a class at OUT Headquarters. We would want to partner with many others including the government so that we pioneer the ICT skills training for persons with disabilities in Tanzania and beyond. As of now the class can accommodate 15 deaf students and the other ICT laboratory for the visually impaired can accommodate 20 persons. However, not many can afford to come for training because of transport costs, fee payment, stationeries, and meals for themselves.

## Disability policy

In Tanzania, we have National Disability Policy 2004 and the Disability Act of Parliament number 9 of 2010. We have also ICT policy and the Basic Education ICT Policy of 2007. As a University we use these documents to support our activities. Currently we are looking for support including COL to support us to develop an Institutional Disability Policy that will guide our operations at OUT. The University offers special services for students with disabilities especially during examinations. The University has a dedicated room for students with disabilities. For the visually impaired are allowed to choose any technology available in responding to examination questions, either by using a typewriter, Braille, and or computers.

## Successes

- One visually impaired student received EDEA award at Kuala Lumpur Malaysia in 2016/2017 academic year.
- Three deaf persons have been employed in big companies that use ICT including TTCL and CCBRT.
- Persons who are visually impaired communicate and work together using ICT.
- Three deaf persons have graduated from CISCO and more than 10 have registered for CISCO courses.
- We have conducted training to Njombe (ICT for the hearing impaired and deaf) and Iringa (ICT for visually impaired and blind) with support from UNESCO.
- The class used by the deaf students uses Smart Board in the teaching and learning process.
- Two students have graduated in Masters Degrees looking at ICT for persons with disabilities at OUT.
- One student is extending a research at PhD level looking at how ICT can reduce communication barriers among learners with autism.
- One PhD student is looking at employability of persons with disabilities in Tanzania, in which some of the respondents are deaf in ICT industry.



- For the year 2016/2017 two visually impaired persons graduated. These are Busengwa Tungu who graduated in Bachelor of Education in Policy and Management "You know I am so happy. I am the 6th in our family. I am blind. I am the first to earn degree among many Busengwa. Some of my uncles managed to finish Form IV and many reached class seven. I am so happy to receive this level of education. I hope many now will be encouraged to study. I thank OUT for supporting me when I needed help." The other one is Mr. Charles Ndalaha Makoye who grad

uated with Master of Social Work in 2016/2017. Both are from Tabora Regional centre of the Open University of Tanzania. Makoye tells that *"Open University is so kind to persons with disabilities. During my studies, sometimes, my laptop was not working. The Director of Regional Centre (DRC) of the Open University of Tanzania would carry it to Dar Es Salaam to Dr. Cosmas Mnyanyi for repair and later send it back to me to continue with studies. I really received the generosity and support that I needed most. It is this support that made it possible for me to graduate with a Bachelor Degree in 2014 and a Master Degree in Social Work in 2017. I urge OUT to continue supporting persons with disabilities in their journey of seeking advancement in education."*

## Challenges

- Persons with disabilities do not have needed qualifications for enrolling into different degree programmes.
- Individuals with disabilities have been encouraged to learn ICT. The challenge is about how to increase a number of facilitators, support in fee payment and transport costs, facilitators' payment, and other training facilities.
- Internet connectivity has been a challenge especially for students when accessing internet, especially, when attending online examinations.

## Recommendations

- Regarding qualifications, many do not perform well in schools. At OUT the practice and technologies used enable them to perform well, as noted earlier persons with disabilities who failed in school can register and pass professional examinations from CISCO. This is good. There is a need therefore, to start enrolling persons with disabilities with knowledge in ICT in skills related courses so that we can find out if ICT can enable them to perform well in different subjects. It can form a big part of research related to rights to education and rights of persons with disabilities in employment.
- Challenges related to ICT facilitators; OUT in collaboration with other partners has to establish a course on ICT for persons with disabilities facilitators. This course can support in increasing the number of competent facilitators. On issues related to logistics there is a need to continue seeking funding both internal and external support.

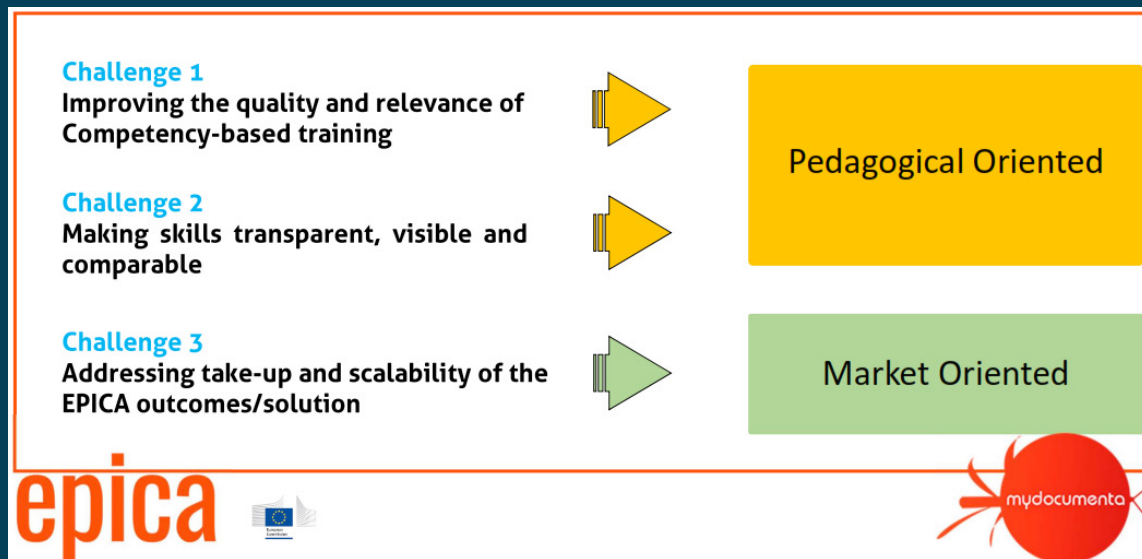
# Open University of Tanzania Participates in the EPICA Project



Shadrack Mbogela

OUT is participating in the research-oriented project known as EPICA (Strategic partnership for the co-design of an innovative and scalable e-Portfolio ecosystem to improve the quality and visibility of skills). EPICA project aims to provide enabling environment to enable the students and young workers acquire the required skills and competencies needed by employers through a process of co-design, adaptation, implementation and validation of an innovative and scalable Competency-Based e-Portfolio. The project intends to use a well-designed e-portfolio integrated with Learning Management System, which applies pedagogical methodologies and competency-based Training to enable students demonstrate skills that employers need for the emerging economies

Open University of Tanzania is participating as the project partner and beneficiary. Other partners include International Council for Open and Distance Education (ICDE), MyDocumenta (MYD), Open University of Catalonia (UOC), ICWE GMBH (coordinates e-learning Africa), Makerere University (MAK), Maseno University (MU), and African Virtual University (AVU)



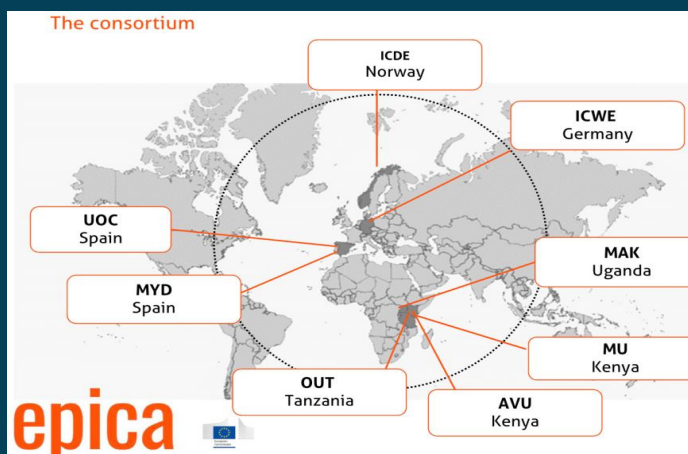
The project is funded by the European Union Research Grant H2020 780435 where the starting date is 01/01/2018 and will take duration of 36 months. EPICA Kick off meeting was held this year from 29th – 31st January 2018 at Hunderfossen Hotell & Resort, Lillehammer Norway, whose objectives were among other things to:-

- Have a common vision of the project and understanding on the project structure, methodologies, timeline and budget
- Have a clear understanding about the relationship between Work Packages (WPs) and role of each organization in the successfully implementation of EPICA project
- To have a common understanding of the project, commitment and others
- Identify what is expected of each participating partners in the project
- Understand how the interaction between WPs as well as partners are

## Organization of the Work Packages

The project comprises 7 Work packages where each WP has a lead partner. The overall project Management is led by ICDE.

1. Project Management (W1)
2. Business and Sustainability Plan (WP2)



4. Pedagogical and technological requirements (WP4)

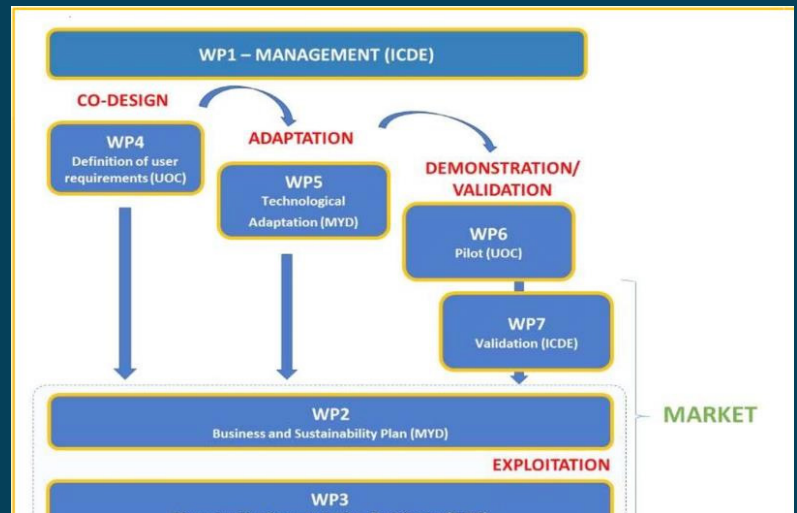
5. Technological adaptation (where e-portfolio will be integrated with LMS-Moodle) – WP5

6. Pilot (WP6)

7. Validation (WP7)

Open University along with Makerere University and Maseno University will be involved in the pilot of the e-portfolio (W6) between month 9 throughout month 36 which will be preceded by a pre-pilot activities between month 3 and 9 whose goal is to test the current version of e-portfolio to detect the best uses and needs requirements (pedagogical and technological) –

WP4. My Documenta which is developer of e-portfolio will together with OUT integrate the e-portfolio with OUT Moodle Learning Management System, prepare a training manual and login credentials to allows selected lecturers and technical personnel familiarize with the e-portfolio (WP5), thus smooth participation in pre-pilot and pilot.



## Advantages to the Open University of Tanzania

- To have competent graduate which increases opportunities to employability
- Will open opportunity for other international projects

## EPICA 2nd Meeting

The next two days meeting is scheduled to be organized by OUT in Dar es Salaam Tanzania the first week of July 2018, suggested to be 2nd and 3rd, where all the participating Organizations will attend to present and discuss the progress of each WP and the next steps. The visitation of the delegates from other countries to Tanzania will add value to the country's economy

## Expected Outcome

- Improved demonstrated skills which increases opportunities to employability
- Scalability to participating Universities and other Universities



Partners Kick-off meeting in Norway – 29th to 31st January 2018

# SHORT ICT COURSES

## Introduction to Mobile App Development with Android course

- Introduction to mobile applications development & it's potential.
- Android platform overview.
- Setting up development environment.
- Apps development fundamentals.
  - XML layouts
  - Java classes
  - Android Activity
- Develop 2 (two) professional Android Apps.
- Apps publishing.

## Get connected

- Computer Basics
- Files and Directories
- All about the Internet
- Exploring the Human Network - Create and use various types of social media accounts, including Face book, LinkedIn, and YouTube
- Keep Yourself Connected - Identify common problems and implement simple solutions for hardware, software, and networks.

## Technopreneurship

- Technopreneurship?
- Imagine Like a Technopreneur
- Think Like a Technopreneur
- A Great Idea or a Wonderful Opportunity
- Protecting and Running Your Own Business
- You and Your Business Are Ready
- You, Your Business, and the Market

## Basic Computer Applications

- Introduction to Computer
- Ms word
- Ms Excel
- Ms Publisher
- Ms Power Point
- Internet and Email

## Advanced Computer Applications

- Advanced Windows
- Advanced Ms Word
- Advanced Ms Excel
- Advanced Ms Access
- Technopreneurship

## Graphic Design

- Adobe Photoshop CS6
- Adobe InDesign CS6
- Adobe Illustrator CS6
- Course Final Project

## Data Analysis with SPSS

- Questionnaire Design
- Data Collection
- Questionnaire Coding
- Data Analysis
  - Qualitative & Quantitative Analysis
  - Data Cleaning
  - Univariate & Multivariate Analysis
  - Hypothesis Testing
- Output Interpretation

## Basics of Microsoft Project

- Components of a Project
- Getting Around Microsoft Project
- Calendars
- Working with Tasks
- Creating and Working with Resources
- Managing a Project

## Advanced Microsoft Project

- Executing a Project
- Monitoring Project Progress
- Controlling a Project Plan
- Reporting on Progress
- Customizing the Application

## Digital Marketing and Social Media Strategy

- Introduction to Digital Marketing.
- Search Engine Optimization (SEO)
- Email Marketing
- Social Media Marketing.
- Mobile Marketing

## Computer Maintenance & Repair

- Computer Components & Accessories
- Computer Power Repair
- Frozen Computer Screen Repair
- Repairing a Slow Computer
- Repairing Errors
- Printer/Scanner Troubleshooting
- Basic Computer Software Troubleshooting
- Basic Network Troubleshooting

## Instructional design course

- Define instructional design concepts and describe some major approaches to instructional design;
- Write appropriate objectives that have specific measurable outcomes
- Discuss the principles of learning that should be observed in the design and delivery of training workshops and sessions for learners in the country;
- Describe the instructional design process and specific instructional design strategies and best practices

*For Enquiries*

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