

UNIVERSITY OF NAIROBI

ICT ANNUAL REPORT FOR 2011

20th February 2012

1 INTRODUCTION

The 2011 ICT annual report highlights latest developments in the section for the year ending December 2011. This is a follow up to a report submitted in June 2011.

Besides the traditional functions of providing connectivity, systems development, user support, and telephony, ICT has embarked on innovative projects that are improving service delivery.

Wifi hotspots have enabled our students to access online resources beyond normal lab hours with the busiest time being between 6pm and 11pm. The SMIS has been extended to allow online room booking and direct receipting thus reducing queues experienced previously in manual receipting.

The number of PCs purchased through the ICT centre now in 2011 stands at 900. Out of these, 450 have already been bought by various departments in the University. The idea was to get discounts through bulk purchases, introduce standardisation in the computing facilities, and benefit from collective after sale services.

The University has continued to automate its functions to increase productivity and enhance efficiency in its operations. The ICT centre has a portfolio of computer based Information systems that support administrative services, teaching, research and learning, with a vast majority being developed in-housed.

2 UNIVERSITY RANKINGS

Ranking of universities and research institutions using their websites has become a common practice. The University of Nairobi has been monitoring her performance on Webometrics and 4ICU rankings. The University system of websites is continuously being updated at the faculty/institute/departmental levels. The content has been enriched and the design improved.

Webometrics ranking is among the first ranking that considered ranking world universities based on their websites. In the January 2012 ranking Webometrics methodology was based on a criterion that focuses on size (50%), visibility (20%), rich files (15%) and scholar (15%).

The University of Nairobi has steadily improved in its performance since 2004 when the first Webometrics ranking was released. In January 2012, UoN was ranked 17th in Africa, and 1st in Kenya.

Ranking	WORLD POSITION IN					
	AFRICA RANK	WORLD RANK	SIZE	VISIBILITY	RICH FILES	SCHOLAR
Jan 2009	29	4,046	3,069	5,413	3,851	3,839
July 2009	24	4,467	2,490	7,001	4,327	3,711
Jan2010	28	3,897	3,136	4,679	4,363	4,104
Jul 2010	26	3,190	1,905	4,119	3,447	3,809
Jan 2011	27	3,136	1,976	4,335	3,310	4,382
Jul 2011	26	2,452	2,045	4,215	4,942	1,706
Jan 2012	17	1,367	631	1,794	2,761	1,724

Table 1 University of Nairobi Ranking since 2009

3 INTERNET BANDWIDTH USAGE

UoN expects to achieve the recommended target of 5 Mbps shared bandwidth per 1,000 students. This translates to a minimum of 250 Mbps for the University where the current student population is approximately 54,000. Currently, UoN consumes an average of 176 Mbps through the Kenya Education Network Trust (KENET).

Two key measures have been put in place to make sure UoN community fully utilises the current bandwidth. The inter-campus routing capacity was upgraded to ensure improved access to the shared internet bandwidth. Wireless internet access points (hotspots) were also put up in the JKML library, selected student halls of residences, Chiromo Campus, and Lower Kabete to maximize off peak hours utilization.

Wireless internet provides access to the internet beyond normal computer lab hours. This has enabled our students to access the university online resources and the internet from the hotspots any time of the day, using the now common *chemiweb* and *chemichemi* Service Set Identifiers (SSIDs). A wiki page has also been provided <http://wiki.uonbi.ac.ke> where staff and students can access information on how to configure their gadgets, self-provisioning, acceptable use policy, and usage tips of this great resource.

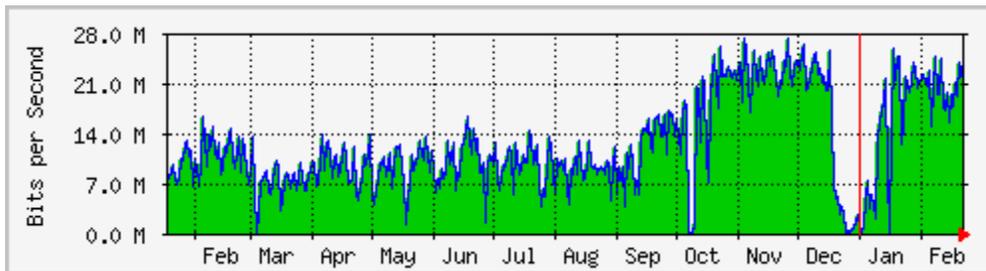


Figure 1 Wifi bandwidth utilisation for 2011

4 LAN AND WAN EXTENSIONS

The User Support Section has consistently been involved in local and wide area network extension projects. These projects provide more users with connectivity to the UoN network. The School of Built Environment had a network upgrade that saw an additional 468 data access points installed. In Kenya Science, the lecture theater network extension project added 120 data access points.

5 MANAGEMENT INFORMATION SYSTEMS

ICT centre is in the process of repackaging the Students Management Information Systems (SMIS) into a Higher Education Enterprise Resource Planning (ERP). This will play a crucial role of deploying home grown solutions to other Institutions of Higher learning. The landmark SMIS system automates the process of student application, admission, fee collection, nominal roll, course registration and examination.

The Joint Admission Board (JAB) System is used to admit students to all public universities in Kenya. ICT Centre sits at the heart of this process, and is in the process of developing an online module that will allow potential students to apply for their degree courses choices online and through their mobile devices

ICT Centre has also developed and implemented the Performance Management Information System (PCMIS). The system computerizes the process of preparation, monitoring and evaluation of Performance Contracts. The system is operational and used for ranking all Colleges and Central Administration Units.

The ICT center has continuously trained users to ensure that they gain the necessary competency and skills to effectively use our Information Systems.

6 UPCOMING PROJECTS

6.1 Server farm upgrade

The Center is in the process of upgrading the Intranet Database Servers and Associated Storage. This project seeks to increase the University's computing capacity for automation of business process commensurate with the rising demand.

The project includes the supply, installation and commissioning of database servers, application servers, storage switches and storage arrays.

The project is meant to increase the current computing power and provide an agile, high availability database, application and storage platform for the University's MIS applications. This will ensure adequate capacity for the university's automated business processes, ease of growth and guarantee data security and integrity.

6.2 CHS and CEES Wifi projects

ICT center plans to roll out wireless internet connection in College of Health Sciences (CHS) and College of Education and External Studies (CEES). In CEES, ICT Center will partner with Kenya Education Network (KENET).

6.3 Kisii, Meru and Garissa Extra Mural LAN

Connectivity of extra mural centers in Meru, Garissa, and Kisii to the UoN network is expected to be done this year. The target is to achieve 120 data points.

6.4 IP CCTV in examination halls

This project aims to install a centralized CCTV system in selected lecture halls across the campuses. The project is expected to end by Dec 2012.

6.5 SWA/SMU network extension

The ICT center plans to extend the UoN network to SWA/SMU and student common rooms at SWA Headquarters. The project is aimed at expanding existing wired and WIFI network coverage and is expected to be complete by December 2012.