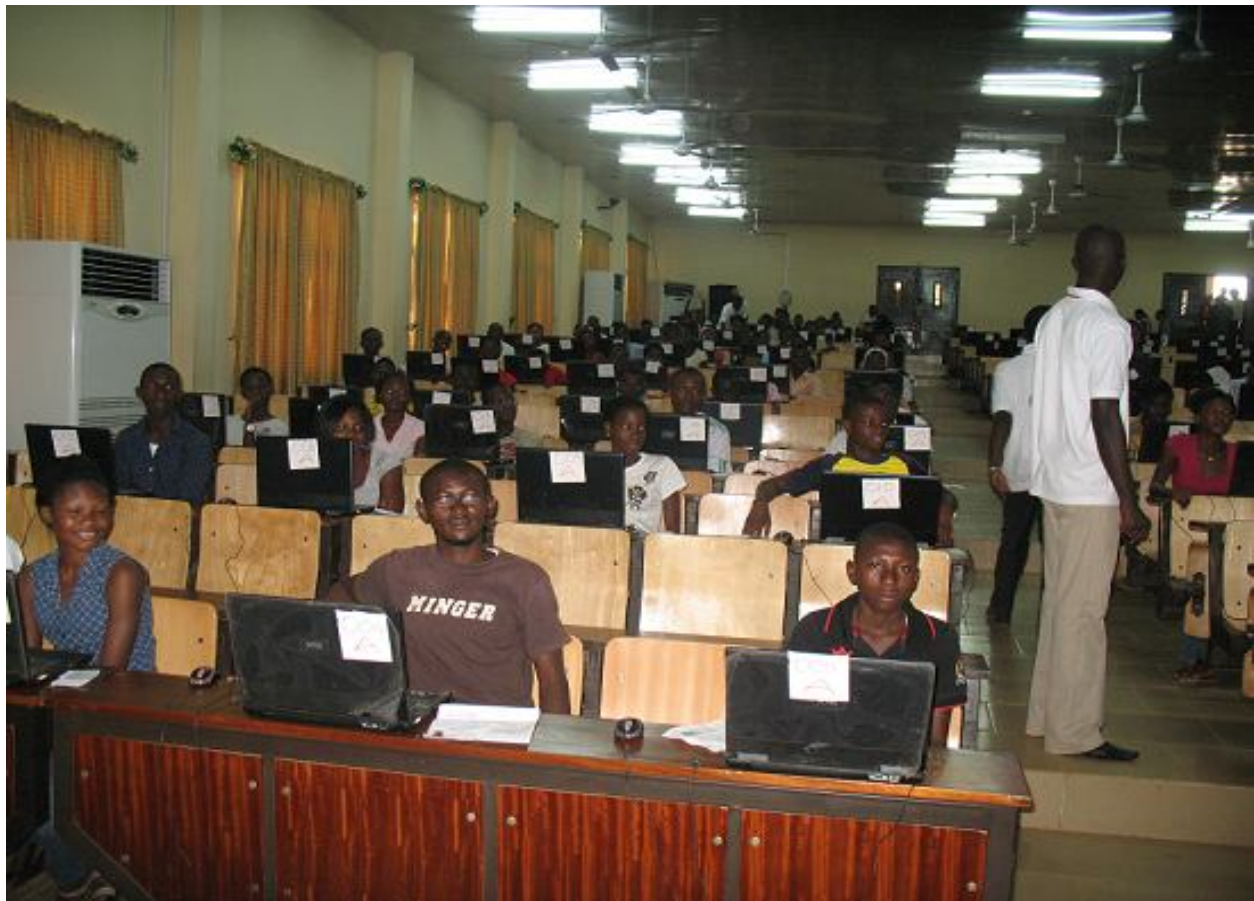


Report of Activities of the ICT Resource Centre, (ICTREC), UNAAB (Jan 2004–Oct 2010)



Introduction:

ICT is fast becoming the pivot in which most activities on University Campuses revolve and it is on it academic, administrative and other elements in the higher education processes ride. This is because Computer and allied Communication Technologies are becoming “must have tools” for delivering good and resulted oriented higher education. It is for this reason that every campus in the universe is not now complete without a dynamic computer infrastructure and services at the centre of teaching, learning, research and extension. Like many other Universities, the wobbly development of ICT on UNAAB campus arises from the fact that it evolved not as a dynamically planned activity. Hence, the haphazard way the technology was introduced had imposed some strictures and limitations that have posed as bottlenecks and impediments to the orderly growth of ICT on UNAAB campus. This is not to recognize the enormous remedial measures that have become necessary in order to turn the tide on ICT use on Campus.

ICT in UNAAB had a very humble beginning and its development had not been free from the challenges which many such units in Nigerian Universities faced at their inception even with the existence of a Computer Science Department.

This Report will only concentrate on the essentials in the ICT activities of the University from 2004 to date.

The Information and Communication Technology Centre (ICTREC) developed from the lowly beginning of what was initially named Computer Centre under the current management. It inherited most of the infrastructure and services of the said Computer Centre as well as some of the headaches of the old structure. The Centre now operates with the following units:

Management Information System Unit
Network Administration and Internet Service
Open User Commercial and Maintenance Unit
Training Unit
 Main Campus
 LEMCEL ICT Unit
 Lion Building
Project Development Unit
Multimedia and Instructional Technology Unit

Administrative Structure of and the Various Units of the ICT Resource Centre Staff Distribution

The table below lists the different units within ICTREC, the job description and names of each of the current staff and staff job disposition in the Centre:

S/N	UNIT	JOB DESCRIPTION	STAFF AND RANK
1.	Director's Office	Office Management, Secretarial duties, Clerical duties and Driving	Dr. F.A. Oguntoye <i>Director</i> Mrs. I.M. Oyeneye <i>Confidential Secretary I</i> Mr. O.O. Ayelabola <i>Snr. Clerical Officer</i> Mr. Sunday Osemeikhian <i>Driver</i>
2.	Network Administration and Internet Service	Responsible for the integrity, maintenance and efficiency of the Campus Network. Provision of Internet Services on campus, maintenance of all servers connected to the network security management. servers connected to the network and network security; Responsible for maintenance of network infrastructures i.e. optic fibres, wireless access points, Ethernet cables, switches, routers e.t.c. in all buildings on Campus; responsible for the maintenance of the VSAT farm; Responsible for CISCO administration.	Directly supervised by the Director Mr. Fasunwon O. W. <i>System Analyst I</i> Mr. Akinbode O.O. <i>System Analyst I</i> Mr. Olaleke M.O <i>Computer Technologist II</i> Mr. Elegbede O. <i>Computer Technologist II</i>
3.	Open User/Commercial / Maintenance Unit	Responsible for providing direct computer access to staff and students at appropriate charge per time unit. Providing commercial services to the University Community in the area of desktop publishing, statistical analysis, computer graphics and sale of computer consumables. On-line Registration for students. Responsible for the trouble shooting and maintenance of computer systems and accessories within the University community;	Mr. Adepo M. O. <i>Chief System Analyst</i> Mr. Essienekpo E.E. <i>Computer Technologist II</i> Mr. Dagunduro O. P <i>Chief Technical System</i> Mrs Solabi A, <i>Asst. Chief Data entry Operator</i> Mrs Taiwo E.O. <i>Computer Operator</i>

	Training Unit (Oke-Itoku)		Mr. Orisakiya N.I. <i>Computer Technologist II</i> Mr. Atobatele Rasak <i>Instructor</i> Mr. Olutunde Seyi <i>Instructor</i> Mr. Aroso A. <i>Instructor</i> Mr. Johnson S. <i>Instructor</i> Mr. Igwe C. <i>Instructor</i> Joel Taibat Taiwo <i>Demonstrator</i>
6.	Project Development Unit	Responsible for development, management and updating of UNAAB website also include acquisition and management of virtual libraries, electronics books, teaching and learning aid, virtual laboratories and lecture materials and making them available to staff and students on the internet.	Mr. Ajayi O.B. <i>Chief System Programmer</i> Mr. Soretire T <i>Snr. Web Programmer</i> Mr. Babatola A <i>Snr. Web Programmer</i> Mr Babarinde A. O. <i>Computer Technologist II</i> Mr. Yusuff A. <i>Computer Technologist. II</i> Mrs Onafowora T. <i>Computer Technologist. II</i>
1.	Multimedia/Instructional Aid Unit	Deploying multimedia system for seminars, conferences and workshops, lectures and theses defence on request.	Mr. Obanla O.O. <i>Computer Technologist II</i> Mr. Gbadamosi I.I. <i>Snr. Technical Asst.</i>

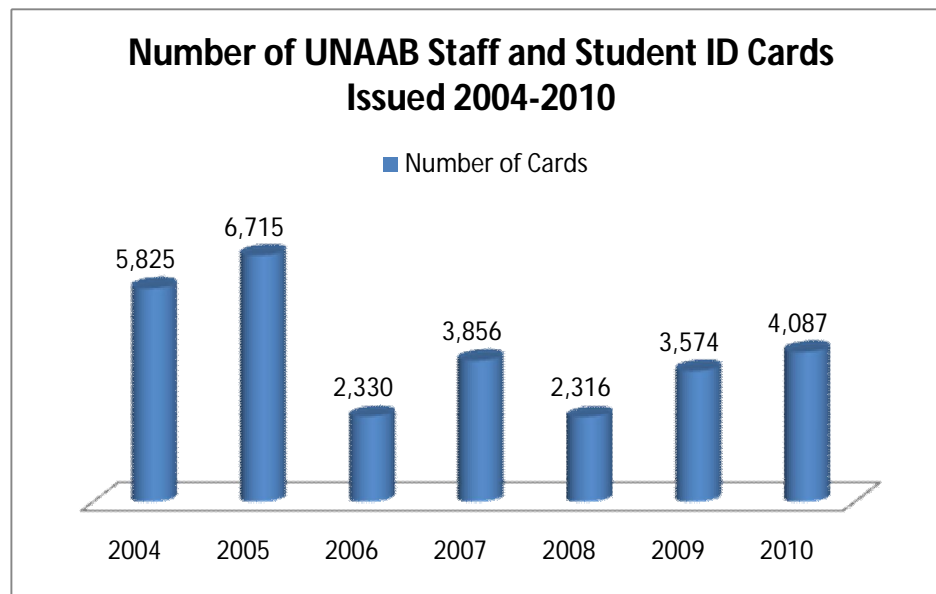
UNAAB Information Highway Management

The MIS Unit is responsible for students' records, staff records, production of identity cards, supply of information to Management and other authorized users based on requests. Reports of Activities carried out by the unit from January 2004 to October 2010 are itemized and shown below on yearly basis.



Landmark Achievements

Prior to the procurement of ID Card Software and Hardware in 2002, the university was contracting the process of identity card production to vendors outside the university environment. Then the university was faced with problems of identification especially during the examination periods when some students were found impersonating their colleagues to sit for examinations. Since the university embarked on the in-house production of identity cards, it has been difficult for the students to impersonate and have multiple identity cards in their possession¹.



Since the installation of EduPortal, students do not need to queue in front of lecturers' offices for course registration at the beginning of the session. In the same vein the generation of Matriculation Numbers for fresh students is now carried out with some clicks on the mouse button. Searching for student information is no more from the Personal Data files in cabinets but from the students' electronic database.

¹ ID card issuance for 2010 was as at September 30, 2010.

Report for the year 2004

1. Input of students' examination results using the Senate Approved Papers
2. Data Entry of students' information from inception of the University extracted from the available Personal Data Files at Exams & Records Unit.
3. Processing of identity cards for staff and students of the university (Five thousand, Eight Hundred and Twenty Five {5,825} Cards printed)
4. Printing of Lecture and Examination timetables
5. Processing of Excess Workload Allowance for all Academic Staff

Equipment	Year of Purchase
Compaq Desktop System (P IV)	2002
SELECT Image Card Printer	2002
Olympus Digital Camera with tripod Stand and Backdrop	2002
DataCard Signature Pad	2002
HP LaserJet 1300 Printer	2002
Compaq Server Intel (R) Xeon (TMU)	2004
Zinox Pentium® IV	2004

Report for the year 2005

1. Input of students' examination results using the Senate Approved Papers
2. Data Entry of students' information for 2003/2004 session extracted from their Personal Data Files.
3. Processing of identity cards for staff and students of the university (Six thousand Seven Hundred and Fifteen {6,715} Cards printed)

2006

1. Input of students' examination results using the Senate Approved Papers
2. The unit acted as a facilitator to COMPULEB during the designing and implementation of the EduPortal Software
3. Processing of identity cards for staff and students of the university (Two thousand three hundred and thirty {2,330} cards printed)

2007

1. Training and re-training of lecturers on how to use the EduPortal was carried out by this unit in conjunction with the Company that developed the Software.
2. Generating Matriculation Numbers for newly admitted students
3. Assisting the Student Affairs Unit in generating the relevant documents for NYSC using the customized NYSC Software.
4. Processing of identity cards for staff and students of the university (Three thousand Eight Hundred and Fifty Six {3,856} Cards printed)
5. Responding to requests on students information from Academic Planning, Security, Exams & Records and Student Affairs Units

Equipment

Year of Purchase

Compaq Desktop System (P IV)	2007
SELECT Image Card Printer	2002
Logitech WebCam Camera	2006
Backdrop and Stand	2006
Database Server	2006
Web Communication Server	2006
HP LaserJet 1320 Printer	2006
Zinox Pentium® IV	2006

Report for the year 2008

1. Managing the University's Student Record System
2. Liaising with the Examination and Records Unit
3. Production of staff and students' identity cards (Two thousand three hundred and Sixteen {2,316} Cards Printed)
4. Participated in the Online Registration of returning undergraduates for the 2007/2008 session
5. Updating of courses on the database
6. Printing of Examination Pass for students
7. Attending to various requests on students from some HODs
8. Generating Matriculation Numbers for fresh students
9. Managing the NYSC Program at the Student Affairs Unit to generate the list of Corp members in batches
10. Generating various reports for the Student Affairs Unit on request
11. Preparation of Lecture and Examination Timetables
12. Preparation of Invigilation Roster for all academic staff for the session

Equipment	Year of Purchase
Compaq Desktop System (P IV)	2007
HiTi Card Printer CS-320	2008
Logitech WebCam Camera	2006
Backdrop and Stand	2006
Database Server	2006
Web Communication Server	2006
HP LaserJet 1320 Printer	2006
Compaq Desktop System (P IV) (Two)	2008

Report for the year 2009

1. Managing the University's Student Record System
2. Liaising with the Examination and Records Unit
3. Production of staff and students' identity cards (Three thousand Five hundred and Seventy Four {3,574} Cards printed)
4. Updating of courses on the database
5. Printing of Examination Pass for students
6. Managing the NYSC Program at the Student Affairs Office to generate the list of Corp members in batches
7. Generating various reports for the Student Affairs Office on request
8. Preparation of Lecture and Examination Timetables
9. Preparation of Invigilation Roster for all academic staff for the session

Equipment	Year of Purchase
Logitech WebCam Camera	2006
Backdrop and Stand	2006
HP LaserJet 1320 Printer	2006
Database Server	2006
Web Communication Server	2006
Compaq Desktop System (P IV)	2007
HiTi Card Printer CS-320	2008
Compaq Desktop System (P IV) (Two)	2008
Genius G-Pen 450 Signature Pad	2009

Report for the January 2010 - Date

1. Managing the University's Student Record System
2. Production of staff and students' identity cards (Four thousand and eighty seven {4,087} cards printed)
3. Online Registration of both fresh and returning undergraduates for 2009/2010 session
4. Updating of courses on the database
5. Printing of Examination Pass for students

6. Managing the NYSC Program at the Student Affairs Unit to generate the list of Corp members in batches
7. Generating various reports for the Student Affairs Unit on request
8. Preparation of Lecture and Examination Timetables
9. Assisting some course coordinators to generate the list of students that registered for a course.
10. Preparation of Invigilation Roster for all academic staff for the session

NETWORK ADMINISTRATION AND INTERNET SERVICES

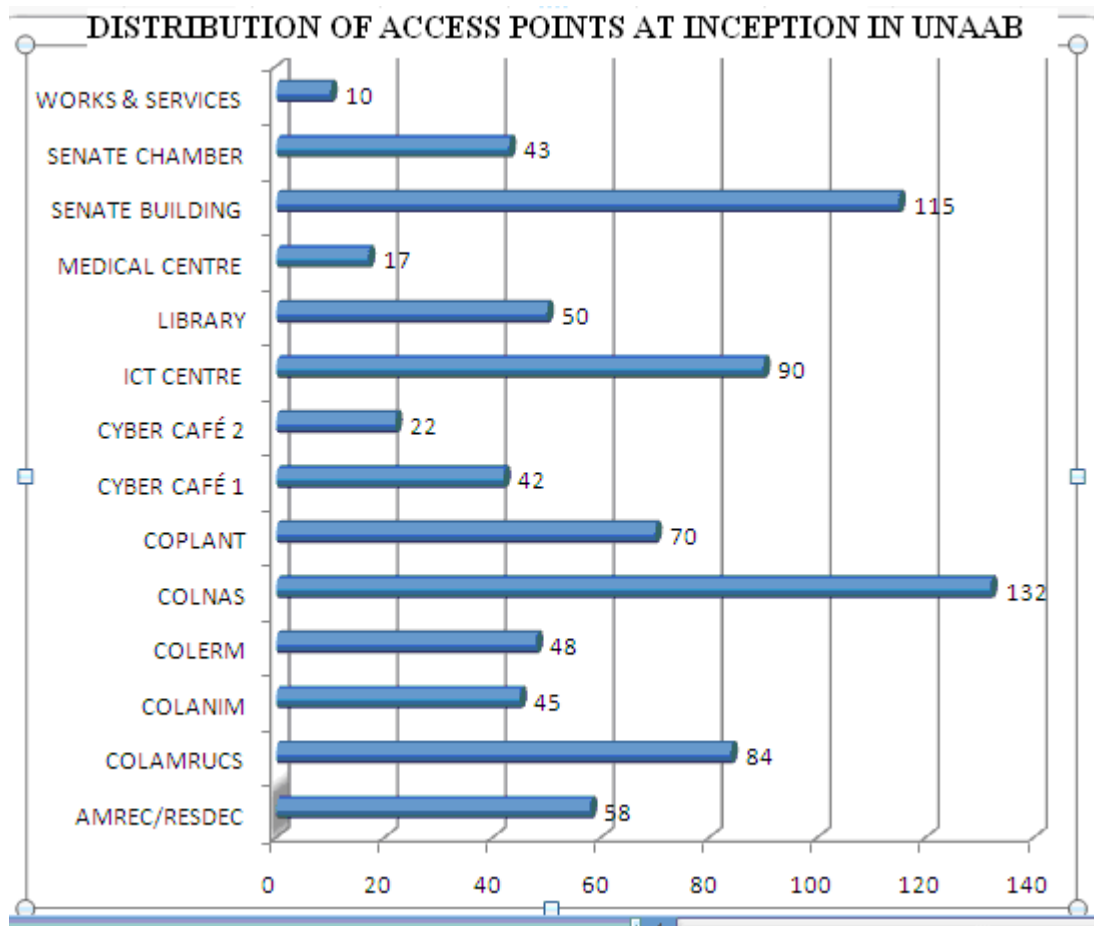
NAIS is responsible for the provision and maintenance of Local Area Network (LAN) and Internet services on campus. The then Computer Centre (now referred to as ICTREC) increased the network coverage of the University from 486 network points in 2004 to 826 in January, 2007. The breakdown of the cabled buildings then was as follows:

• COLANIM	45 points
• COLPLANT	70
• COLAMRUCS	84
• COLNAS	132
• COLERM	48
• COMPUTER CENTRE	90
• MEDICAL CENTRE	17
• WORKS & SERVICES	10
• CYBER CAFÉ	42
• LIBRARY	50
• SENATE BUILDING	115
• AMREC/RESDEC	58
• SENATE CHAMBER	43
• CYBER CAFÉ 2	22



VSAT INSTALLATION AND INTERNET PROVISION

Introduction of Very Small Aperture Terminal (VSAT) became the centre of internet communication in UNAAB in March 2005. The first phase of the project was the installation of the first dish in by March 28, 2005. The bandwidth then was a paltry 128 kilobyte per second (kbps) uplink and 128 kbps downlink. Considering the low level of use and the limited number of access required, the service was then ample and slated for a period of one year fully paid Internet subscription. The bandwidth size was of 128kbps uplink by 128 kbps downlink was kept at this level through 2005 and much of 2006.



When the extension and provision of more internet access points and the introduction of Edu-Portal became apparent and real, the existing bandwidth was found inadequate to meet both the access needs and to drive the operations of the then proposed edu-portal and other learning management systems that were then being proposed. A proposal was made by the Computer Centre then to Management which funded the increase in bandwidth size from its 128/128 kbps to 512 kbps uplink and 1024 kbps downlink.

The three contractors listed below competed with others for the projects listed after their names:

- a. Compuleb Nigeria Ltd. UNAAB Eduportal and Accounting Software
- b. Global Summit Nigeria Ltd. Provision of higher bandwidth for internet access of 256/1024 wireless access points and the provision of 50 desktop computer system.
- c. Supercard Nigeria Ltd Provision of Blackboard e-learning management system.

Arising from financial constraints, the first two projects were executed while the last was stepped down.

The structured cabling of the buildings in the Colleges listed above except Cyber café room 2 was delivered and installed by Commercial & Scientific Computing Limited (CSC) and the exception installed by Soad Technologies Ltd. The wireless access point links to some buildings were initially handled by Global Summit Technologies Nig. Ltd. and later extended by the ICTREC staff. The activation of VSAT link and Internet provision started in March, 2005 as part of e-Learning.

Status of the Internet Project as at 2007 and Thereafter

As at the inception of the current administration the various internet projects on campus were in a state of crisis. The bandwidth crisis led to the award of the supply to Konett, a company in Enugu which failed to meet its contractual obligations to the University as at January, 2008. This contract was determined and Messrs Skannet was invited to fill the vacuum. This too failed and returned the contract sum back to the University blaming its problem to meet the obligation on internal delay caused by its uplink Internet Bandwidth Service Provider to fully implement the bandwidth contract. Messrs Global Summit equally served for some months while the University negotiated a direct contract with Gilat Satcom of Israel.

By 2009, the demand for internet access on UNAAB Campus had increased so much that the inadequacy of the then existing bandwidth was being felt and led to the need to acquire a 1024kbps by 4096kbps. Which had been serving the needs of the University.

The e-learning Project

The e-learning project, a Federal Government project, was awarded in January, 2005 to Fleet Technologies Limited and concluded in November 2005. The installation process was in three phases; phase 1 – VSAT Installation (March 2005); and phase 2 – delivery of the e-learning project hardware and software (May 2005); and phase 3 – installation of the software (July to November 2005). The e-learning project needed an e-learning application (e.g. Blackboard) to drive the e-learning management system but was not acquired due to financial and contractual bottlenecks.



e-Learning Centre

Two centres were created on July 2005 at the Computer Centre for the execution of e-Learning Project with 20 Sun- ray terminals at each centre. The classes were

then used to demonstrate to the academic staff and some of the students in attendance the capabilities of Blackboard learning management system.

Extension of Internet Services

Project to extend and resuscitate Internet services was awarded in August 2006 to Global summit Nig. Ltd. The project included the supply of 50 desktop computers. The internet component of the service was terminated on 2nd May 2007 and later re-awarded to Konett Nig. Ltd. up till January 2008 when the services provided by Konett became questionable and was consequently terminated. The University resuscitated the Internet services by inviting two separate Internet Service Providers (Gilat and Global Summit Ltd.) to provide the services and only Gilat was eventually retained and had been effectively providing the services till date.

ACHIEVEMENTS OF NAIS

The under listed were some of the achievements of the Internet and Networking team from July 2009 to date:

- Sectoral wireless deployment on campus (September 2009)
- In a bid to make internet available to everyone on campus, ICTREC deployed the sectoral antennae to beam wireless signal to virtually everywhere on campus. Although today the wireless signal is seen to have covered to very large extent but a few infrastructures were still needed to make it available inside of all the buildings.
- Internet access deployment to Pension house (October 2009)
- Fixing of damaged 20watts BUC power Box (November 2009)
- Installation and restoration of Mikrotik Server (December 2009)
- Internet Access deployment to UNIS (January 2010)
- Internet Access deployment to Works and Services (January 2010)
- Internet Access deployment to COLAMRUD (January 2010)
- Internet restoration via swapping of BUC (February 2010)
- Core switch installation and configuration (March 2010)

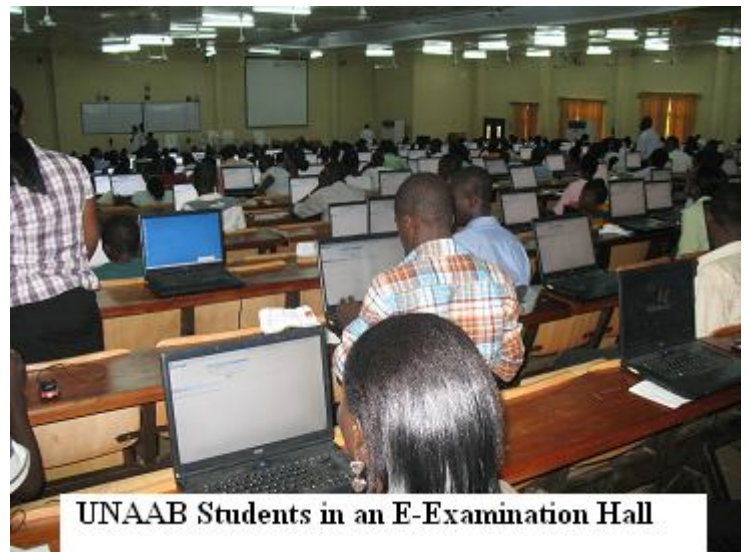


- Restoration of Internet access to COLERM (March 2010)
- Extension of internet access to Central Computer Laboratory (March 2010)
- Creation of entire UNAAB Bursary network (March – April 2010)
- Resolution of Internet access of COLNAS computer lab and WING B (April 2010)
- Actively participated as an instructor during the fresh student ICT training
- Internet problem resolution and monitoring on campus (Daily)
- Configuration and deployment of e-library (e-granary server, LAN Teal server, Agora) for UNAAB Library (In progress).
- The Library today has been able to take-off with its e-Library with the assistance of the present day Internet and Network team. The e-Learning centre at the library had been adequately networked and configured to deploy most of the e-material which had been acquired over the years but not put to use initially. Today the e-Learning centre has become the centre-stage among the students who besiege the centre for their home work and research activities.



Other activities of members of the unit include:

- Marking of OMR based CAT and examination
- ICT Training
- Serving as Members of, Committee on Computer Based testing (CBT) or e-Examination
- Computer-based testing otherwise known as the e-Examination.



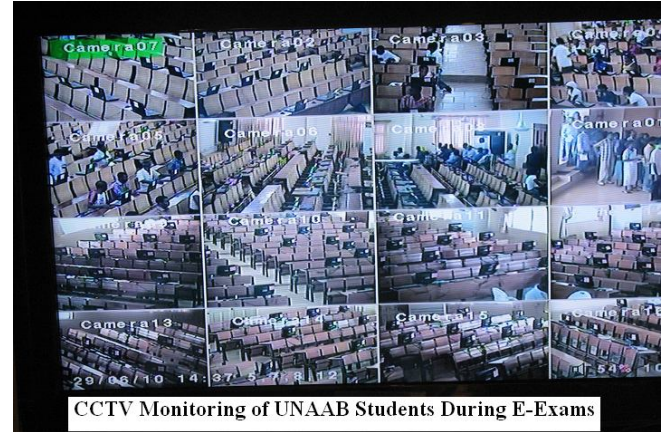
UNAAB Students in an E-Examination Hall

Even though the e-Exam appear to be the sole responsibility of the DVC Academic and the timetable committee (TIMTEC), the role of ICTREC at every stage in the examination processes is often ignored. It is particularly powered by ICTREC staff since most of the data required and used for the exercise are supplied by ICTREC and are wholly supported by majority of its staff to achieve the desired result.

An important development in the activities of the Network team within the year 2010 has been the development and deployment of an open ware solution already

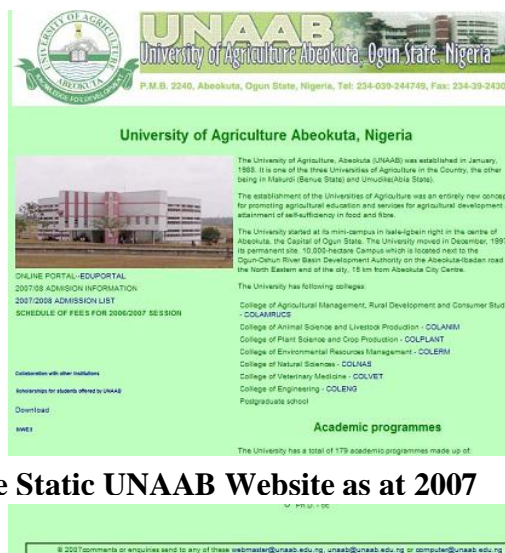
adopted and re-modified to conform to our taste to suit the same e-Exam purpose on Campus. This had been tested with ICTREC in-house computer training students both on campus and at the ICTREC training centres at LEMCEL building and the Lion Building, Iberekodo centre. With a little more infrastructure to this, ICTREC is set to provide the same e-Examination platform to the student populace of UNAAB:

- Deployment of Closed circuit camera to cover major exam centres
- Closed circuit camera has also been deployed to provide electronic –eye on the students during exam at all our examination centres (JAO & MPB) by ICTREC to monitor and report any form of examination malpractices during examinations. Also, in the case of any major event the CCTV is to record every detail activities during the programme for playback and record purposes.
- Reconnection of the COLAMRUD and COLANIM to fibre links through splicing
- Networking of the PG Boardroom
- Wireless connection to PR and Audit building Networking of the Agricultural Extension and Farm Management computer laboratory.



ACTIVITIES OF THE PROJECT DEVELOPMENT UNIT

The UNAAB Website below was an image on the wall as at 2007. Development of the website had progressed rapidly with dynamic elements, enriched contents and regularly updated. The diagram below showed the legendary static UNAAB website as at 2008.



The Static UNAAB Website as at 2007

Redesign of the University Website: The University Website was redesigned and ported to a Content Management System to enhance update, maintenance and administration of the site..

Web Design Projects (Sub-Domains): the following sites were designed and integrated as sub-domains to the university website:



The New UNAAB Website as at October 2010

- **IFSERAR:** Institute of Food Security, Environmental Resources and Agricultural Research (www.unaab.edu.ng/ifsera)
- **LIBRARY:** Nimbe Adedipe Library (www.unaab.edu.ng/library)
- **GRECC:** Graduate Records and Career Centre (www.unaab.edu.ng/greec)
- **WANOART:** West African Network on Organic Agriculture Research and Training (www.unaab.edu.ng/wanoart)
- **ASSET:** International Journal of Agricultural Sciences, Science, Environment and Technology (www.unaab.edu.ng/asset)
- **Admission09:** developed to enable prospective students (2009/2010 session) register and monitor their application online. (www.unaab.edu.ng/admission09)
- **Admission2010:** developed to enable prospective students (2010/2011 session) register and monitor their application online (portal.unaab.edu.ng/admission2010)

Web Portal

- **Post Graduate School Admission Portal:** a web portal was designed and implemented to automate the admission procedure for the 2010/2011 session. It was implemented in such a way that payment can be made from any Zenith bank in the country. Registration from outside the country is also catered for.
- **Student Portal:** the result processing module was designed to cater for the shortfalls/limitation in current Examination System being used by the University. Development is currently awaiting testing with live data by stakeholder.

Weekly News Bulletin: News and Newsletter Modules were added to the university website as the site became the main medium of dissemination News/information about the University

- **News:** Content of UNAAB News Bulletin is from is uploaded News module basically from information in the Bulletin.

- Weekly News Bulletin: electronic copies of the UNAAB News Bulletin are sent to the mail boxes of the following:
 - All past Vice-Chancellors of UNAAB
 - All Currents Professors in UNAAB
 - Vice-Chancellors of other Universities in Nigeria

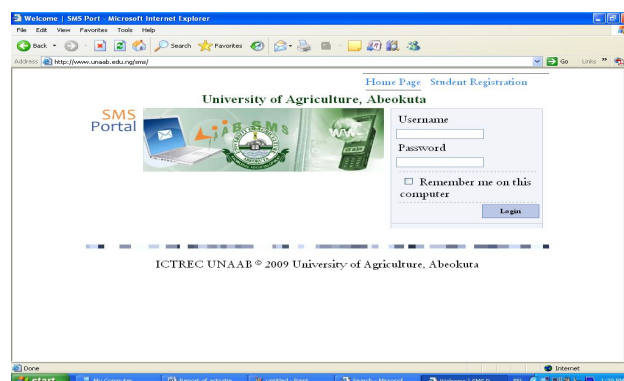
In addition the School Calendar for the new session were also placed on the web as well as Digest of Council Decisions.

Website Updates: Contents of the website were updated as information is made available to keep it up-to-date and relevant

- Online job advertisement: Vacant position for Junior and Senior (Academic and non-academic) staff were advertise on the university website

Web Application Development

- **SMS portal:** maintenance of the SMS solution was implemented by the unit in 2009 to serve the SMS need of the University community. It is now actively being used for mass contacts of students and staff.



Training: unit members were involved in training activities of the centre:

- ICT Training for Fresh Students: prepared the course manual and PowerPoint slides (Introduction to eRegistration) for new student computer training.
- Presented “Introduction to eRegistration” session during the ICT Training for Fresh Students.
- Web design and programming training.

UNAAB eMail

- Creating and managing UNAAB email addresses for staffs.

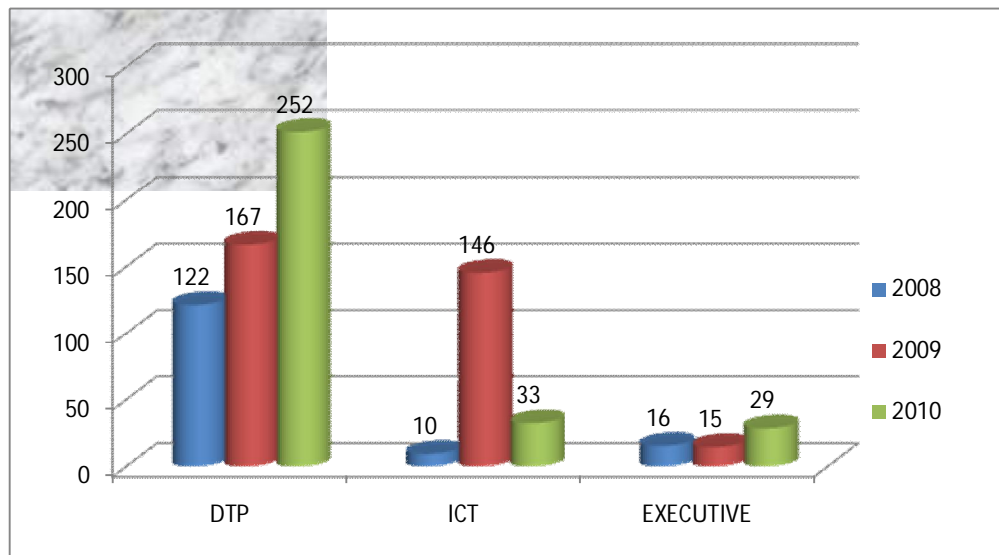
PROVISION OF WIFI INTERNET ACCESS

UNAAB ICTREC staff rose to the challenge of making internet access available to all the built-up area of the Campus via wireless access. Areas that are not within the College circuits like, UNAAB International School (UNIS), Works and Services, Main Gate, University Farm, Medical Centre, etc. are now receiving wireless signal.

TRAINING ACTIVITIES OF THE ICT TRAINING UNIT

This Unit was called Open User, Help Desk & Commercial Unit when the present Unit head took over its training operation. The staff attached to the unit were focused on the performance of the following under-listed roles:

TRENDS OF TRAINING 2008-2009



- ❖ Attending to Client & Users in the various department and Unit in the University, also responsible for the repairing and maintenance of Computer and its peripheral.
- ❖ Involved in providing technical network engineering assistance in LAN operations, development, support, implementation and maintenance of University Network.
- ❖ Involved in training Users, Trainee Programmers and Engineers on network environment. The Unit also Train students in Statistical and GIS Softwares and Engineering Designs and Drawing with AutoCAD. In addition the following joint activities with other units in ICTREC were undertaken by staff in the Training Unit:
 - ✚ Worked Closely with Team functioning as Multimedia Unit during any University Function like Inaugural lecture, Ceremonies etc .
 - ✚ Oversaw University Café in COLVET Building & ICT Training School at Isale Igbein and Lion Building in Iberekodo.
 - ✚ Involved in Marking UME Post Jamb Score.
 - ✚ Worked Closely with Team functioning as System Programmer Web designers during fresh Student Admission, online registration etc.
 - ✚ Also supervised the Business Unit where revenue was generated for the university through supply and installation of Computer Accessories, Printing and Scanning in the past.

The table below, which excludes the figures for the other two units in town, shows the total number of trainees who went through our regular training programmes on campus and does not also include those of fresh students who began to be offered training at the commencement of their courses in UNAAB during the current session. The second of such training is already ongoing. Each would add figures that would be in excess of 2,700.

	DTP	ICT	EXECUTIVE	TOTAL
2008	122	10	16	148
2009	167	146	15	328
2010	252	33	29	314
TOTAL	541	189	60	790

PROJECT DEVELOPMENT

ICTREC embarked on various ICT projects that have been contributing to the development of the University in diverse ways. First as a cost saving initiative and a means of earning revenue for the University ICTREC had embarked on various initiatives that had been beneficial to the University.

As a response to the millions of naira being paid to contractors for assignments that could be safely carried out in-house, the staff of the Centre had on several occasions shown their uncanny skills in the execution of the following under-listed projects:

a. Electronic Certificate Issuance

The introduction of Electronic Certificate Issuance Process has significantly improved the hitherto long delay in completing the process of certificate issuance on UNAAB Campus. Beginning from the Convocation of 2008 during which the backlog of degree certificates were issued in block. To date, certificates dating back to 2004/2005 Session and up to the last Convocation were electronically prepared and issued. In addition, errors in many certificates dating back to the first convocation were regularly returned for re-issued after necessary approval had been obtained.

b. Scratch card production

UNAAB is about the only University in Nigeria that is able to generate its own scratch card codes and to produce scratch cards for its own use. Since 2008, savings worth several millions had been made for the

University by ICTREC from code generation and processing into scratch card.

c. Wireless Deployment

With the rising demand for internet access it became apparent that only WIFI can meet the needs of a larger number of staff and students who need internet access to join the global highway for work, recreation and research.

d. Repair of Internet Equipment

The strong showing of the UNAAB internet equipment in recent months owe its rising significance to the ability of the staff of the centre to use the ordinary equipment available to carryout some extra-ordinary feat on the aging equipment. For months now and as we await the full installation of internet equipment already paid for by management, the staff had kept all systems functioning with cannibalized internet bits and parts. With the problems posed by regular power surges, ICTREC staff were able to deal with the collapse of the 20 Watts BUC and to even adapt a lower capacity BUC to carry the University over difficult times.

e. SMS Development

The Short Message System was developed and deployed for use since 2009. It became an effective emergency tool at different times in the recent past for alerting staff and students about emergency events and situations on and off campus. The SMS as developed depended on the know-how of staff for every aspect of the development but still needs a little more to improve on its use and management.

f. Web Design and Document Management Development System

With the changes introduced to the UNAAB website, a document managing window was added to help ensure the decentralization of web content management and regular updates especially of the contents of some of the sub-domain within the UNAAB website. This is important in order to regularly update the contents of the website as had been the practice since the new facelift.

g. E-Exam Software Development and Deployment

The e-exam platform was introduced to compliment the OMR use in examination marking and result compilation. ICTREC had been

h. Student Data Handling and Transcript Generation

ICTREC was directed to develop the student result handling module for the existing UNICOM Software. This had been done by a project team

saddled with the project. It is now awaiting testing on life-data and to be tested by users who have to upload their data on excel worksheet for direct upload to ICTREC server which will complete the examination result manipulation to produce Senate ready reports for the various examinations.

i. OMR Machine Handling

The Optical Mark Reader was acquired to facilitate the prompt marking of examination papers. It soon became one equipment that will be added to the array of portfolios for ICTREC.

CHALLENGES AND NEEDS

The ICT world is full of challenges. Hence, ICTREC has had its own fair share of the numerous challenges that technology, users and finance can pose for the orderly development of ICT facilities in the range and level required by UNAAB that has chosen to make ICT an important tool in its education delivery arsenal. While human problems remain a constant and often a recurring occurrence, the regularity of such interference had been a source of set-back.

To the human interference must be added the inadequacy of top-notch ICT equipment to keep UNAAB in healthy competition with its peers. Among the urgently needed are spares and accessories that often break down and requiring to be replaced regularly. To this group are working tools like laptop and desktops required by staff of the department.

Accommodation and transportation is yet another area of challenge for staff now that all ICT staff are placed on shift duties for the full implementation of the 24/7 duty schedule.