1. INTRODUCTION
The Academic Computing Unit (ACU) under the University of Ghana Computing Systems (UGCS) is mandated to design, adapt, promote, and implement industry best practices for e-learning, research support, library systems and institutional repository. It is also expected to monitor academic technology developments and trends at other leading institutions and advise management appropriately. During the year under review, the unit initiated and partnered with other units in UGCS to execute a number of projects. On the University front, the ACU collaborated with the Balme Library and University Archives in the areas of digitization, preservation, institutional repository and records management. The Office of Research Innovation and Development (ORID) awarded two (2) grants to the Unit to support its core functions in partnership with the University Archives and Balme Library. The Unit played a key role in the implementation of the University of Ghana Enterprise Content Management and Intranet Portal project which seeks to digitize records and automate the University’s manual workflows. The renovation of the Ghana-Korea Information Access Center which involved the upgrading of IT Equipment and interior decoration was supervised by the staff of ACU.

The Unit’s activities for 2015-2016 academic year are presented.

2. ASSESSMENT OF ADMINISTRATIVE RECORDS FOR DIGITIZATION
The Academic Computing Unit and University Archives assessed records in eight (8) Administrative Offices for digitization. The offices are Registrar’s Office, Finance Directorate, Office of the Legal Counsel, Human Resource & Organizational Development Directorate (HRODD), Vice-Chancellor’s (VC) Office, Public Affairs Directorate and Procurement Unit. A total of 1,337,622 pages are expected to be scanned.

Figure 1: Document Processing Centre at Registry
A Document Processing Office equipped with a document scanner and accessories has been
established at the Registry. The roadmap for scanning and uploading of the records into the University of Ghana Enterprise Content Management & Intranet Portal has also been developed. There are plans to engage about ten (10) students and post-national service personnel to do most of the scanning from June to September 2016. Due to the sensitive nature of some of the records and documents, staff from the respective units will also be involved.

3. TECHNOLOGY TRANSFER GRANT FOR DIGITIZATION AND PRESERVATION OF RECORDS
The Technology Development and Transfer Centre of ORID awarded forty thousand Ghana Cedis (GHS40, 000) to the Unit to train 90 legal practitioners and their supporting staff in digitization and preservation techniques. The *Technique for Digitization and Preservation of Records* is an innovation by the University of Ghana Computing Systems in partnership with the University Archives and the Balme Library to assist small and medium size enterprises to effectively manage their records. The technique is also applicable to related private companies and public institutions. Part of the grant would be used to assist Akrasi & Co Legal firm to digitize their records.

4. INSTALLATION OF EVENTS AND ROOM RESERVATION SYSTEM (LIBCAL)
Libcal – [http://libcal.ug.edu.gh](http://libcal.ug.edu.gh) events and room reservation system has been installed to manage facilities in Ghana-Korea Information Access Center (IAC), Research Commons (RC) and Seminar Rooms in the Balme Library. The extension of the online booking system to UGCS Training labs and IT Lab on Korle-bu campus are yet to be activated. Other facilities in the University will be added to the system if the current license of 20 is increased. The time slots clocked in the IAC and RC are shown in Figure 2.

5. MIGRATION OF UNIVERSITY OF GHANA LIBRARY AUTOMATION SYSTEM TO SIERRA
The University of Ghana Library Automation System (Millennium) [http://library.ug.edu.gh](http://library.ug.edu.gh) was migrated to Sierra Library Management System on 29th September 2015. As at May 2016 a total of 9,698 materials were borrowed from libraries across the university campuses. The breakdown is as follows: Undergrads (8,792), Graduates (482) and Academic Staff (424). The number of items catalogued from January 2015 to date were 13,090. Out of the number Balme Library had 5,142 while 7,948 were added to the catalogue from departmental and hall libraries. The borrowing trend is shown in figure 3.

![Figure 3: Borrowing Trend for 2015-2016](http://example.com/figure3.png)

A web training session in systems administration on Sierra for staff was conducted on 27th February 2015. Sierra WebPAC Administration online workshop was participated by Mr. Kwaku Marfo and Henry A. Agbondza on 11th December 2015. Sierra System Coordinator Basics with ASAA; and Sierra Reports and Statistics for System Coordinators are scheduled to take place in July 2016.

6. RANKING OF UNIVERSITY OF GHANA INSTITUTIONAL REPOSITORY
According to the January 2016 Webometrics Ranking, the University of Ghana Institutional Repository (UGSpace) [http://ugspace.ug.edu.gh](http://ugspace.ug.edu.gh) placed 20th in Africa out of 64 repositories. This is
an improvement on the last ranking conducted in July 2015 where it was ranked 25th.

For the period under review, the number of items added to the repository were: Theses (1,419), Research Articles (1,275), Reports (90), Journals (126), Lectures & Speeches (55) and Legon Centre for International Affairs and Diplomacy (LECIAD) (76).

ACU staff has implemented an automatic process for depositing research articles and other research papers of University staff published in the BIOMED Academic Database. At last count, 357 full text articles have been deposited into UGSpace as a result of this. We hope to replicate this with other academic databases. The significance is that, if academic databases go offline, the University community will still have access to these articles for teaching, learning and research.

7. USAGE OF OFF CAMPUS ACCESS, E-BOOKS AND E-RESOURCES
The off-campus system http://ezproxy.ug.edu.gh provides the University community access to e-resources for research when they are off-campus. Since January 2015 a total of 3,910 users (students and faculty) have been added onto the system. During this period, ACU enabled the integration of E-books from different vendors onto the platform with 3,015 titles from ScienceDirect and 1,221 from Myilibrary.

8. IMPLEMENTATION OF UNIVERSITY OF GHANA ENTERPRISE CONTENT MANAGEMENT & INTRANET PORTAL
The Academic Computing Unit played a major role in the implementation of University of Ghana Enterprise Content Management and Intranet Portal (UGECMIP) – http://ugportal.ug.edu.gh UGECMIP is a sub project of “Chinese Project Phase II” with the aim to digitize the current paper/records in the University and automate their existing manual workflows. Four technologies are being used in the project - Liferay, Alfresco, Central Authentication System (CAS) for Single-Sign-On (SSO) and Ephesoft. It also provides a facility to create virtual offices using UG Collegiate structure. The portal will enable the University community to create, share and archive documents and records. It also has collaborative tools like blogs, wiki, chats, message boards, calendar, etc.

8.1. User Acceptance Training I
As part of the implementation of the project, three-day User Acceptance Test (UAT) training was organized for 22 staff in 11 Units/offices at the Ghana-Korea Information Access Centre from 4-6 May 2015. Eight (8) University of Ghana Computing Systems (UGCS) staff were also trained as Trainers of Trainers. The offices that participated in Phase I are VC-Office, Pro-Vice-Chancellor (ASA), Pro-Vice-Chancellor (ORID), Registrar’s Office, Legal Office, Provost–College of Education, Provost- College of Humanities, Dean-School of Continuing & Distance Education (SCDE), Dean-University of Ghana Business School (UGBS), Department of Education and Department of Management Information Systems (MIS). They were taken through an overview of the portal, the role of Office Administrator, Principal Contact Person (PCP), workflows and uploading of documents and records among other functionalities of the system.

The training was extended to staff of Audit Directorate and Human Resource & Organizational Development Directorate (HRODD) in a separate session.

8.2. User Acceptance Training II
A second User Acceptance Training on the Portal was held at the Ghana-Korea Information Access Center, Legon, from April 29 to 2nd March 2016. Twenty-five (25) participants were drawn from the Vice-Chancellor’s Office, Pro-VC (ASA), Registrar’s Office, HRODD, Academic Affairs Directorate, Procurement Unit, Public Affairs Directorate, Legal Counsel, Internal Audit

Figure 4: Participants at UAT-I Session in May 2015
Directorate and University of Ghana Computing Systems. The training covered document management, workflows, advanced workflow and organization of committee meetings using the portal. The participants were satisfied with the training and expressed the need for it to be extended to other staff of the University including senior management.

The resource persons were two consultants from Cignex Ltd, India and staff of University of Ghana Computing Systems (UGCS). The status of the implementation of the project was presented to UGCS Management on 12th May 2016 at the Ghana-Korea Information Access Center by Barfi-Adomako Owusu, Head of Academic Computing Unit.

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9. RENOVATION OF GHANA-KOREA INFORMATION ACCESS CENTER AND KOREA IT VOLUNTEERS

A Memorandum of Understanding (MOU) was signed on 20th May 2015 by the Vice-Chancellor of University of Ghana (Professor Ernest Aryeetey) and a representative of the National Information Society Agency of the Republic of South Korea (NIA) to renovate the Ghana-Korea Information Access Center (IAC). It involved the upgrading of IT equipment and interior decoration. Thirty-one (31) computers, fifty-seven (57) chairs and accessories were replaced. Assistive Technology equipment for visually challenged, comprising of 2 HD Lifestyle Magnifiers, Braille Sense and Jaws software were also supplied. This is expected to provide better services to users.

The University of Ghana as part of its counterpart funding has replaced most electrical fittings, tiled the corridor and provided resources to paint the exterior walls.

Figure 6: MOU Signing Ceremony at New Council Chamber

A total of 8,123 users used the Internet Lounge comprising 6,062 males and 2,061 females in 2015. Approximately 161 events and IT training were held and attended by 4,209 participants during the same period.

Figure 7: IAC User Statistics for 2015

From January to May 2016, over 3,009 patrons had used the Internet Lounge as depicted in figure 8 below with high patronage in March and June.

Figure 8: Internet Lounge User Statistics - Jan-May 2016
The World Friends of IT Volunteers (KIV) dispatched two teams (of 8 volunteers) to the Ghana-Korea Information Access Center (IAC) from July 3-29, 2015 to train staff and students in IT programmes and the development of web portal.

Mr. Byun Minki, Executive Principal, Global IT Cooperation Division, Global IT Planning & Consulting Dept., National Information Society Agency (NIA), South Korea visited the IAC and University of Ghana from 23rd to 28th of June 2015, to discuss the volunteers activities for the year and the vision and future of World Friends IT Volunteers in Ghana.

Another batch of eight (8) volunteers are expected in the University from 2nd to 31st July 2016, to offer training in Android, Apple iOS, .NET/SQL and Java to the University community. There will also be cultural displays and basic Korean language sessions. The IT Project team members will be part of the digitization of documents and heritage materials.

10. WORKSHOP ON DIGITISATION, RECORDS MANAGEMENT AND INSTITUTIONAL REPOSITORY
From 8 to 10, April 2015, a three-day workshop on Records Management, Digitization and Institutional Repository was held at the Ghana-Korea Information Access Centre for 24 Librarians, Records Managers and Researchers in the University and six other participants from National Accreditation Board, Ghana Standards Authority, Ghana Institute of Journalism and KNUST. The workshop was organized by the Balme Library in collaboration with the Academic Computing Unit-UGCS and the University Archives under the sponsorship of the Office of Research Innovation and Development (ORID). The workshop provided participants with practical hands-on in document preparation, digitization techniques, preservation and the management of institutional repositories.

11. CONCLUSION
To sum up, we wish to state that the Unit has achieved its targeted goals for the year. We can look forward to carrying out more programs to promote research-centered teaching and learning. The Unit will continue to monitor progress on issues so that we can develop strategies to support our core mandate.