

**DELTA STATE UNIVERSITY, ABRAKA
ICT AND E-LEARNING POLICY**

1.0 Introduction:

Information and Communication Technology (ICT) has become a major driving force in facilitating research, curricular development and implementation, e-learning, administration and management in Higher Institutions. New opportunities have been provided by ICT developments for educational institutions to take advantage of to effectively achieve their set goals and objectives. Generally, ICT has positively impacted the manner at which business as well as academic activities are conducted, assisted and simplified teaching, learning and research as well as generating knowledge sharing and global information flows. It has also empowered interactions of citizens and communities, giving rise to a universal information community. It has speedily become the pivot and engine of economic growth and development across the globe. In the 21st century university system, ICT resources have become pivotal in both academic and non-academic activities and therefore, there must be a control and monitoring system put in place for ICT resource deployment and management in the university. To meet with global best practices and competitiveness, and also position DELSU as a world class university of excellence through the application of ICT resources, has set out this ICT policy document for efficient and effective application of ICT resources in the university.

1.1 DELSU ICT Purpose and Policy Objectives

The main objective of the DELSU ICT Policy is to harness the potential of ICT as a catalyst for effective learning, teaching, research, innovation and Administrative Management in Delta State University. To develop and implement ICT policies, strategies and services and make them available to both staff and students at Delta State University.

The specific objectives of this DELSU ICT Policy are to:

- a. provide guidance in developing a broad based, reliable and secure communications infrastructure, which shall conform to recognized international standards and support all services in the University;
- b. provide a framework for developing and managing ICT network services that will improve performance, ensure security, and reduce the cost of operating ICT infrastructure;

- c. provide a framework, including guidelines, principles and procedures for the development and implementation of ICT projects in Delta State University and;
- d. outline the acceptable and unacceptable use of ICT infrastructure. equipment and services in Delta State University.

The provisions of this ICT Policy, which are outlined in sequel sections, cover the following areas:

- i. applications of ICT to Education Delivery at Delta State University;
- ii. applications of ICT in the Management and Administration of the Delta State University;
- iii. ICT Infrastructure Access Management and Control;
- iv. network development and management;
- v. capacity building ISO Information Security Management Systems;
- vi. equal opportunities;
- vii. maintenance of ICT facilities;
- viii.collaborative services and resource ;
- ix. World Web Universities Ranking;
- x. facilitate and improve the various teaching tactics and learning procedures;
- xi. to promote and improve problem-solving, critical thinking and innovative skills;
- xii. encourage research, publication and development;
- xiii.to develop and enhance indigenous capacity in ICT technologies and software development ; and
- xiv.facilitate improved access to information.

1.3 ICT Policy Management

The implementation and management of this policy on behalf of the university shall be the responsibility of:

- a. Information and Communications Technology-Policy and Management Committee (ICT-PMC); and
- b. the Director of Information and Communications Technology (DICT)

The ICT-PMC acts on behalf of the University on ICT policy guidelines endorsements and advises management on innovations and the overall direction of ICT in the University.

1.3.1 COMPOSITION AND TERMS OF REFERENCE OF THE ICT- PMC

This committee will be composed of people with fair knowledge of ICT as well as ICT-users/stakeholders with a responsibility to significantly contribute and participate in policy formulation. The Vice Chancellor shall constitute the committee with the following terms of reference:

- to support in the formulation and ensure compliance of ICT standards, policies and procedures within DELSU;
- To support the all e-learning and ICT-enabled learning activities and adventures in the University;
- to promote the harmonization of ICT developments and activities engaged by all units of the University;
- to identify and promote areas of collaboration with other institutions to advance the use of ICT for teaching, learning and research;
- generate revenue for the University through a functional ICT provision and other ICT projects and;
- carry out any other functions assigned to it by the VC.

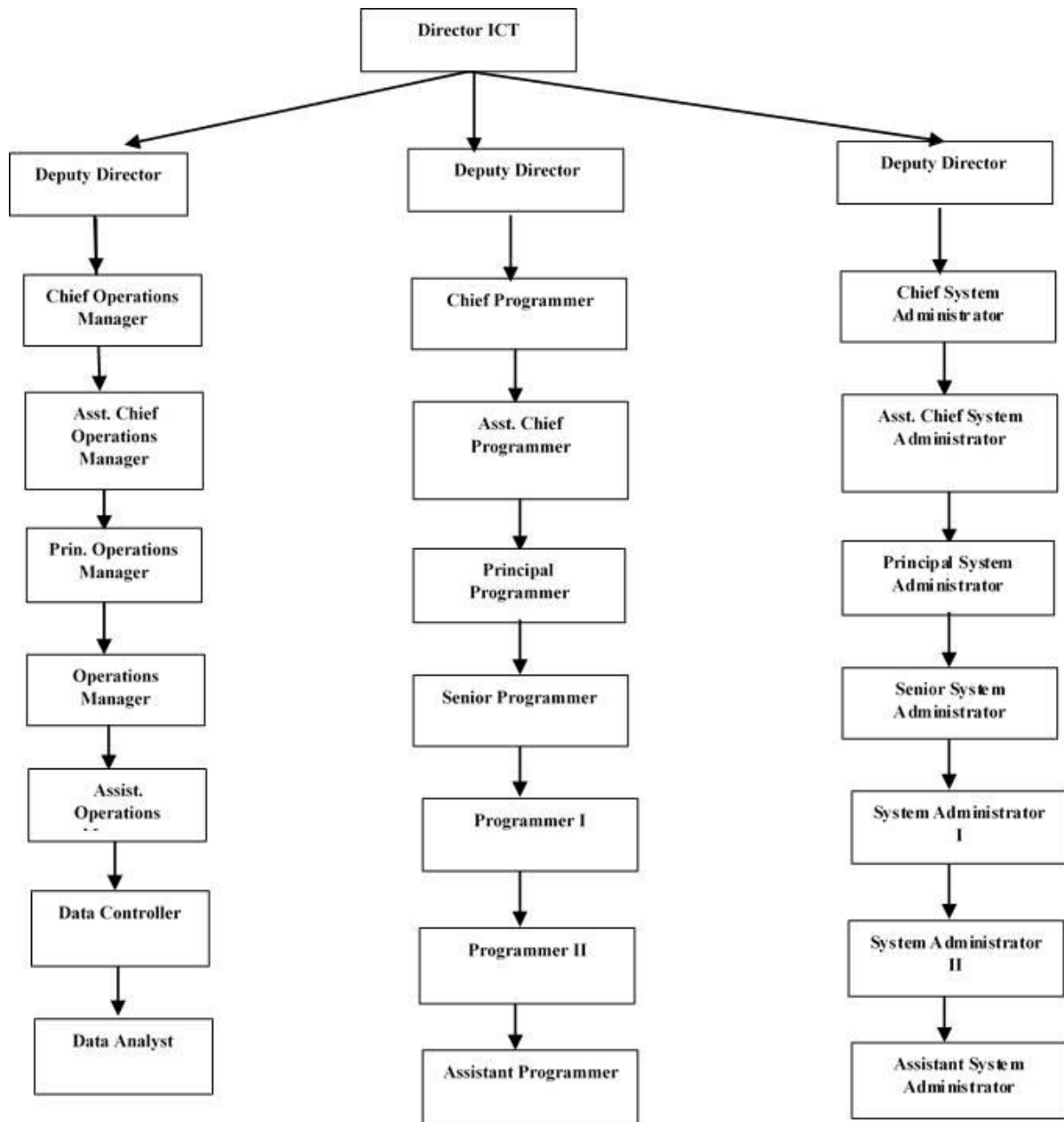
Members of the ICT-PMC shall be:

- a. Deputy Vice Chancellor (Academic), Chairman;
- b. Director, ICT;
- c. Deputy Director, ICT;
- d. One Representative of the Registrar;
- e. Three representatives from ICT;
- f. One Representative from the Faculty of Engineering;

- f. Head of Department of Computer Science;
- g. One Representative from the Legal Unit;
- h. One Representative from the University Library;
- i. One Representative from Academic Staff Union of Universities (ASUU);
- j. One Representative from Senior Staff Association of Nigerian Universities (SSANU);
- k. One Representative from Non-Academic Staff Union (NASU);
- l. One Representative from National Association of Academic Technologists (NAAT);
- m. One Representative from Bursary Department;
- n. One Representative from the Directorate of Physical Planning;
- o. One Representative from Students' Union Government and;
- p. One Representative from the Directorate of Internal Audit

1.4 Personnel Structure/Organogram for DELSU ICT

The management of ICT resources has to be coordinated for the whole University by the Information and Communications Technology (ICT) Directorate headed by a Director appointed by the Vice Chancellor.



This Organogram is without the Administrative Staff, Computer Operators, Caretakers/ Messenger Cleaners etc.

1.5 DELSU ICT STRUCTURE AND FUNCTIONS

The various units that make up the ICT Directorate.

1. Software Development/Testing/Deployment and Maintenance Unit
2. Hardware Installation/repair and Networking Unit
3. Training/Manpower/Media Unit
4. Administration/User support (Helpdesk unit)

5. Data Controller Unit
6. Computer Operations Unit

1.5.1 FUNCTIONS

The Directorate of Information and Communications Technology (DICT)

The ICT Directorate is responsible for the strategic leadership of the University's ICT, its advocacy, external positioning, policy, and implementation.

It shall also be responsible for:

- a. the implementation of ICT policies, strategies and ensuring adherence to standards by the University;
- b. providing ICT advisory services to the entire University Community;
- c. providing strategic support for all University's ICT Infrastructure and Services with the help of its various functional units and;
- d. other assignments as may be given by the VC.

1.5.2 Functional Units of ICT Directorate and their Responsibilities

The functional units of ICT Directorate and their responsibilities are as follows:

The Director/Deputy Director

- The Director/Deputy Director of DICT shall be responsible for the ICT strategic planning, co-coordinating, supervising and management of quality assurance as well as management of information systems of the University.
- Shall Co-ordinate activities of the various units of DICT to ensure that the ICT facilities and services are managed and delivered at the highest level of quality.
- Liaising with the DICT Units to prepare and maintain an up-to-date database on staff and students as well as basic statistics in the University.

Software Development Unit

- i. Systems analysis and design
- ii. Design, implement and manage appropriate University information systems.

- iii. Monitor, review and evaluation projects

Hardware Maintenance Unit

- i. Investigation, troubleshooting and provision of solutions to malfunctioning systems.
- ii. System installation, maintenance and repairs

Administration Unit/ User Support Unit (Helpdesk)

- i. Management of students Information
- ii. Provision of support services to students on University Portal utilization
- iii. Receive user requests and enquiries and communicate same to appropriate unit of DICT for resolution.
- iv. Provision of support services to users
- v. Publish its dedicated telephone lines for user's real-time human and automated-response support services.

Data Controller/Management Unit

- i. Provision of technical support
- ii. Management and security of the institution's data and Data Centre Infrastructure

Networking Unit/ Internet Administration Unit

- i. Provision of strategic support for all University's ICT Infrastructure
- ii. Network infrastructure management and installation provision of Network Security.
- ii. Ensure the availability of internet access across the university community at all times.
- iii. Internet control and management services

Training/Manpower/Media Unit

- i. Promoting the use of e-learning tools and materials
- ii. Provision of training for staff and students on ICT skills
- iii. Provision of ICT consultancy services

Computer Operations

- i. Performing data processing operations.
- ii. Prepare and make adequate changes to documentation.
- iii. Maintaining computer equipment.
- iv. Develop and process reports for technical meetings.

Definition of terms

1. **DICT:** Director Information and communication Technology
2. **VC:** Vice Chancellor. Delta State University
3. **ICT-PMC:** Information and Communications Technology-Policy and Management Committee
4. **CCTV:** Closed Circuit Television
5. **Breach of Contract:** A violation of any of the agreed-upon terms and conditions binding on disclosure, materials transfer, licensing and commercialization agreements.
6. **Creative Work:** Describes creative efforts manifested in writing, filmmaking, dancing, fine artwork and composition.
7. **Copyright:** Copyrights are exclusive rights granted by governments to authors over original works for a fixed period. Under the federal copyright law, copyright subsists in "original works of authorship" which have been fixed in any tangible medium of expression from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.
8. **Delta State University Community:** Includes all Delta State University employees (including but not limited to full-time, part-time, contract service, and Health Service Clinician faculty, and all staff), all students, and all appointees or visitors funded by the University and/or who use University facilities or materials in the process of Innovation.

9. **Delta State University Resources:** Includes private or governmental funds administered by the University; or the use of university space, materials, or facilities.
10. **Delta State University Innovation Ecosystem:** The university of Lagos communities, her students, staff and affiliates including the infrastructure and supporting facilities that are collectively connected physically and electronically to define the DELSU dynamic innovation workspace.
11. **Discovery:** One or more facts or conditions describing nature that may or may not be patentable under the patent laws of the U.S. or a foreign jurisdiction.
12. **Dispute:** Any disagreement between two or more parties that are collectively involved with innovation or its processes within the University of Lagos Innovation ecosystem or that involving external audiences.
13. **External Audience:** non-members of the University community not limited to individuals, alumni, entrepreneurs, corporate entities, innovation investors, development partners, governments (national and sub-national) and their agencies, and external funding agencies.
14. **Individual:** One or more members of the University of Lagos Community or the general public.
15. **ICT Directorate:** The Delta State University ICT Office
16. **Innovation:** A machine, method, process, manufacture, materials, composition of matter, or design with utility that may or may not be patentable under the patent laws of Nigeria, and/or foreign jurisdictions.
17. **Intellectual Property:** The term "Intellectual Property" as used herein is broadly defined to include inventions, tangible research property, copyrightable works, trademarks, industrial

designs, trade secrets, geographical indications, and appellations of origin.

18. **Invention:** A patent is an exclusive right granted by a government to an inventor or assignee for a fixed period of time in exchange for the full public disclosure of details of an invention. Inventions are protected by patents for a specific period of time, during which the inventor may exclude others from making, using or selling the invention.
19. **Technology:** is defined in this document to include technical innovations, inventions, and discoveries, as well as creative works and other information in various forms, including computer software with potential for derivative benefits.
20. **Innovator:** An Individual that made an Innovation.
21. **Innovation Hub:** Physical space with facilities dedicated to enabling inventors, innovators and creators to nurture ideas into industry-changing products and services.
22. **Tangible Research Property (TRP):** Includes, but is not limited to, materials, computer software, computer databases, prototype devices or equipment, engineering designs or drawings, integrated computer chips, audiovisual works, antibodies, genetically modified animals, and cell lines.
23. **Computing services** refer to any IT resource made available to an individual, any of the network borne services, applications or software products that an individual is provided access to and the network/data transport infrastructure that an individual uses to access any of the services (including wired and wireless access to the Internet).
24. **Online services** include services provided and accessible (both wired and wireless) through individual accounts and passwords. Such services include access to internet/intranet related systems, including but not limited to computer equipment,

software, operating systems, storage media, and network accounts providing electronic mail, internet browsing, and FTP and are the property of Delta State University, Abraka.

- 25. **Devices** include but are not restricted to computer desktop, laptops, mobile tablets and smart phones.
- 26. **CIArb:** Chartered Institute of Arbitrators
- 27. **DRC:** Dispute Resolution Committee
- 28. **QA:** Quality Assurance

2.0 RELEVANT GOVERNMENT POLICIES AND LEGISLATIONS

The following National Frameworks and key policy guidelines were considered in drafting this ICT policy and procedures.

1. Federal Republic of Nigeria National Information and Communication Technology (ICT) Policy, by The Ministry of Communication Technology, June 2012.
2. Federal Ministry of Education National Policy on Information and Communication Technologies (ICT) in Education, May 2019.
3. An Overview of Laws Governing ICT Practice in Nigeria, September 29, 2022(<https://thefirmaadvisory.com/new-blog/2022/9/29/policy-areas-and-laws-regulating-them-in-nigeria-at-a-glance>)

2.1 SCOPE OF THE ICT POLICY AND PROCEDURES

This policy and procedures are applicable to all DELSU staff and students, visitors as well as providers offering services to DELSU, all users of ICT equipment owned or leased by the Institution as well as all equipment connected to DELSU ICT related infrastructure. In addition, the policy applies to all DELSU ICT related resources and services. It is also applicable to all campuses, departments, institutes and centers as well as students' hostels owned by the University.

The ICT Policy will guide the use of ICT by all university departments and support units.

This policy covers the following broad areas:

- i. ICT Governance and Management;
- ii. ICT infrastructure;
- iii. ICT for teaching and learning;
- iv. Information systems;
- v. Email services;
- vi. Internet services;
- vii. Information security and business continuity plan;
- viii. Capacity building and user support;
- ix. ICT hardware and software maintenance, replacement and disposal;
- x. Quality assurance and control of ICT services
- xii. Management and sustainability of ICT services;
- xi. Content and publications in website;
- xii. Investment in adoption of new technologies;
- xiii. Social media innovation;
- xiv. ICT project management; and
- xv. Establishing links and partnerships

2.1.1 ICT Governance and Management

ICT Governance is a very important part of the University governance and consists of the leadership, organizational structures and processes that ensure that the ICT directorate sustains and extends the University strategies and objectives which enable university to meet its goal and objectives. In order to achieve the University mission, ICT services need to be given support at the highest level by the University management through provision and allocation of funds, infrastructural development and staff training.

Policy Statement

1. The University shall give priority to ICT and e-learning and enforce its application cohesively in all its core activities.

2. The University shall strengthen the ICT steering Committee so that it can monitor performance in the delivery of ICT services.
3. The University shall develop ICT Skills Training and Consultancy Services which can innovatively be used for income generation activities to reduce donor dependency.
4. The University shall ensure that adequate skilled staff are employed and developed to manage and support available ICT infrastructure and services.
5. The University shall provide opportunities for staff training based on business and technological changes.

2.1.2 STRATEGIES

The University Management shall:

- I. build and encourage the development, utilization and sustenance of the ICT manpower required to achieve all ICT policy objectives;
- II. provide and sustain the necessary ICT infrastructure platform at all levels;
- III. encourage and provide Research and Development infrastructure in ICT in order to actualize her objectives;
- IV. provide appropriate legal, regulatory and security framework to ensure the actualization of ICT policies;
- V. ensure availability of adequate and skilled ICT human resources in terms of technical, academic and administrative staff;
- VI. ensure that DELSU becomes a center for creativity in terms of ICT related knowledge, and software development to drive her academic, administrative and management activities;
- VII. ensure that staff and students have access to ICT facilities to facilitate their day-to-day activities;
- VIII. institute measures to ensure that departments, faculties, institutes, directorates, centers, and units consult ICT directorate before undertaking any ICT initiative for the sake of harmonizing efforts and optimizing resources and infrastructures ; and
- IX. ensure availability of appropriate software and hardware to meet the needs of the University community.

The ICT Directorate shall:

- i. develop and/or keep track of ICT resource advances in order to provide guidance on their implementation in line with the university's strategic objectives;
- ii. undertake advocacy for the adoption and utilization of ICT resources within the university;
- iii. promote effective and appropriate utilization of ICT facilities and services by staff, students and other authorized users;
- iv. ensure that ICT Risk Management is periodically done, where ICT risk assessment is conducted and reviewed, likelihood and occurrence identified, mitigation strategy established and risks treated, accepted, transferred or avoided;
- v. establish a mechanism for evaluating and monitoring ICT services (e.g., Service availability, staff satisfaction/feedback system) and its compliance; and
- vi. develop guidelines on disciplinary actions for violation of this ICT policy.

Deans of Faculties, Heads of Departments/Units, Administration and Research Units shall:

- i. integrate the application of ICT resources into their activities;
- ii. implement and ensure compliance to the Unit specific components of the ICT Policy and other related strategies; and
- iii. promote and facilitate the successful implementation of the ICT Policy and other associated measures, actively participate in the recurring stakeholder consultations.

2.2 ICT INFRASTRUCTURE

Globalization makes it compelling for universities to enhance the development of its ICT Infrastructure in order to respond effectively to new challenges. Therefore, it is necessary to develop ICT infrastructure in support of teaching and learning development as well as seamless deployment of administrative functions.

The ICT policy focus should include the institution of Broadband infrastructure, digital literacy and Internet usage infrastructure, protection of ICT infrastructure, institution's physical infrastructure including power.

The DELSU shall operate and maintain a functional ICT networking infrastructure and shall continue to invest in wired and wireless networks in response to the growing needs of the Institution.

2.3 ICT FOR TEACHING AND LEARNING

- a. DELSU shall set up infrastructure to support online and networked learning and other e-learning platforms.
- b. DELSU shall provide and upgrade from being exclusively face to face/paper-based learning environment to a blended learning i.e., both on-line and face to face/paper-based learning.
- c. The Institution shall encourage the use of ICT as a major interaction platform between lecturers and students.
- d. DELSU shall exploit video conferencing facilities of the web and other similar technology so that lectures and communications like video conferencing can take place between the various campuses as part of the DELSU e-learning infrastructure.
- e. The Institution shall enhance capacity building and motivation of lectures in designing and development of multimedia enriched e-learning courses.
- f. The university shall incorporate ICT facilities that accommodate students with special needs.
- g. The University shall set up an e-learning management committee saddled with the responsibility of formulating, reviewing and monitoring the DELSU e-learning strategies and ensure periodic evaluation of e-Learning usage in teaching and learning.
- h. The university shall encourage activities that will encourage students to use ICT in their learning processes.
- i. The University shall facilitate the availability of infrastructure that supports CBT and online examination.

2.4 ICT RESEARCH AND DEVELOPMENT

Research and Development is pivotal to the attainment of any achievement. Therefore, there is a strong need for sustained investment and commitment to Research and Development in ICT.

2.4.1 E-LEARNING

- The University shall adopt and enforce the e-learning method for education delivery through the creation of an e-Learning Centre.
- The primary duties of the e-Learning Centre shall be to make recommendations on online teaching and learning.

Other duties of the e-Learning Centre shall be to:

- conduct periodic review of development of e-learning in the University;
- create guiding principles for e-learning;
- review the key collaborations/partnership with other institutions;
- create a roadmap for Delta State University, Abraka Open Distance Online Courses/Courseware; and
- conduct periodic quality assurance and evaluation of sharing in Delta State University.

To support students' e-learning method, the University shall:

- ensure that lecture notes and pre-recorded lecture videos are available online for students engaged in e-learning activities;
- provide facilities for students to submit their coursework and assignments electronically;
- provide for the students to have unfettered correspondence with their Lecturers via emails, school intranet or Departmental Portals. This correspondence shall include ability to apply for test rescheduling, extenuating circumstances, review and questions on projects and coursework;
- ensure students have access to Library resources and e-Journals without having to be physically present on the campus;
- ensure students are able to access test scores, grades, financial status and lecturers' comments on the University Portal;
- ensure that every lecturer and teaching staff has access to a computer and internet services; and
- have a well-stocked computer laboratory accessible to all registered students, faculty and staff.

3.0 INFORMATION SYSTEMS

1. DELSU shall systematically implement information systems that are flawlessly integrated to ensure effective service delivery, information sharing, decision-making and reporting.
2. The University shall on a regular basis audit and review its Information Systems to ensure that they are available, secure, user-friendly as well as meet DELSU requirements and specifications.
3. DELSU shall ensure both ICT and User departments and Third-party resource project teams are fully involved when implementing new applications to ensure that seamless and successful deployment.
4. The University shall invest in its currently existing academic and administrative systems to ensure that they achieve their potential and continue to add value to the academic and administrative processes.

3.1 E-MAIL SERVICES

1. DELSU students and staff shall be allocated an e-mail address.
2. The University shall guarantee the security of electronic mail services.
3. DELSU shall allow the creation of staff and students relevant mailing groups to facilitate communications and dissemination of information in the University.
4. DELSU shall provide guidelines on using official email.

3.2 INTERNET SERVICES AND USAGE

Access to the University network facilities (wireless and wired) shall be controlled through the following measures:

- all Faculty/Staff and students shall be provided with a username and password etc., to be able to access the computer systems and the internet. The naming convention shall be adhered to;
- all students shall be allowed access to the Internet network facilities;
- all traffic passing through the firewall shall be screened and audited;
- the DICT shall maintain control over data packets and connection requests by means of a centralized firewall that will adequately filter data traffic;
- in line with the Delta state University Core Values, all authorized users shall not be allowed to view or visit sites with offensive and inappropriate materials (e.g.,

pornographic sites, sites used to spread hate and racial or religious intolerance, etc.);

- DELSU shall not be liable for material viewed or downloaded by users from the Internet;
- the University shall regularly inspect Internet files held on computers connected to the University network, to ensure appropriate use of facilities;
- defaulting users shall have their usernames and passwords disabled and penalized appropriately;
- all users shall not download or upload offensive materials on the University network; and
- to optimize students' level of academic productivity, the University reserves the right to restrict their access to certain/specific websites for a certain period of time as may be conserved necessary.

4.0 INFORMATION SECURITY AND BUSINESS CONTINUITY PLAN

In order to ensure information system security, a user shall be responsible for the following:

- become familiar with the device that is sufficient to keep data secured;
- Prevent theft and loss of data (using PIN/Password/Passphrase lock);
- keep information confidential, where appropriate;
- maintain the integrity of data and information;
- never retain personal data on university systems;
- when in doubt as to whether particular data can be stored on the device, ask/consult with the DICT or seek advice from the appropriate authority;
- staff shall not be encouraged to keep University data in their personal systems/devices;
- all official communication shall be routed through the University e-mail.
- no one shall delete official documents from the University systems in their care, negligently or deliberately.
- the ICT Directorate shall put in place a viable backup policy and disaster recovery plan including downtime classifications and recovery schedule and also create the capacity to restore services within an acceptable period of time after a disaster

such as major hardware or system failures or failures resulting from natural disasters;

- the ICT Directorate ensures prompt and easy recovery from data loss/corruption and create ability to restore services within a specified acceptable period of downtime;
- DELSU shall develop and operationalize business continuity plans, ensure availability of offsite backups and enhance physical and logical security;
- the DICT shall ensure that only authorized staff or personnel are granted access to server rooms, computer labs and other major ICT facilities of the University;
- the rooms or spaces housing equipment shall be adequately secured as the doors, windows and the keys or access codes to these rooms shall reside only with the Director or appointed representative;
- assets Register shall be maintained by all Units to keep track of and take inventory of all hardware and software in the Department;
- a central register shall also be maintained by the ICT Director to keep inventory of the computer equipment in the University;
- all ICT equipment shall be labelled and/or engraved appropriately for identification;
- all entrances to secured areas shall be appropriately labelled “Only Authorized Persons are allowed”; and
- access controls and security surveillance equipment like CCTV cameras shall be installed and monitored in secure areas to prevent unauthorized access, theft and tampering with computing facilities during and after working hours.

4.1 CAPACITY BUILDING AND USER SUPPORT

1. DELSU shall provide staff members with opportunities to develop and sustain their ICT related knowledge and skills as appropriate to the purposes of their individual jobs.
2. The University shall ensure that ICT staff work in collaborations with user departments and other centers to support the research, training and innovations activities including the Academics, Administration, Planning and Development.

3. The University shall ensure that staff and students are trained to be able to functionally use systems that are implemented and deployed in line with the university strategic objectives.
4. The University shall also seek ways of bringing together the knowledge gained from training and know-how, which is built up from experienced practitioners throughout academic and administration departments.
5. The University shall continue to provide the needed user support services to both staff and students.
6. DELSU shall invite and expose students and staff to exchange programs or short-term courses, seminars and conferences to acquire new skills in line with university strategic objectives requirements.

5.0 ICT HARDWARE AND SOFTWARE MAINTENANCE, REPLACEMENT AND DISPOSAL

- The University shall make provision for adequate resources to ensure regular maintenance of ICT equipment, to put in place a systematic preventive maintenance culture.
- The University shall also refurbish or replace obsolete and outdated computer laboratory equipment as early as possible to minimize maintenance costs, failures and incompatibilities.
- The University shall systematically modernize her stock of computers to meet the demands of the latest software, web access and other tasks of computation and communication.
- A maintenance programme shall be put in place to ensure that the hardware devices are serviced and replaced from time to time.
- The ICT Directorate shall maintain and support all hardware devices/peripherals (which may include desktop computers, laptop computers, printers, scanners, digital cameras, projectors, power backup systems and network equipment) in the University.
- Users of the hardware shall strictly adhere to the guidelines on ICT usage of the hardware in order to guarantee support by ICT.

- To ensure that all hardware and software acquired by the university are inspected, recorded against the technical specification, user requirement, compatibility to the existing systems and disposal thereof.
- To enforce use of open-source software and ensure use of licensed software where necessary.
- To establish ICT hardware and software usage guidelines and ICT equipment procurement, replacement and disposal policy
- The University shall develop procedures for procurement, upgrading, replacement, and disposal of obsolete and faulty ICT equipment.
- The University shall develop and operationalize procedures and conditions for acceptance of donated ICT equipment and applications solutions.
- The university shall make use of Open-Source software and encourage the use of licensed software where necessary.

5.1 QUALITY ASSURANCE AND CONTROL OF ICT SERVICES

The goal in DELSU is to maintain ICT service standards, quality and control in order to sustain and optimize the investment made in ICT procurements and infrastructure. The application of these quality standards will enable the University to resolve issues relating to lack of monitoring and evaluation system, lack of standards in hardware and software.

1. DELSU shall put in place a functional and effective quality assurance system.
2. The University shall establish standards for hardware and software.
3. The University shall put in place a monitoring and evaluation system.
4. The University shall setup a consistent and systematic ICT equipment and facilities acquisition, maintenance and disposal systems.

5.2 CONTENT AND PUBLICATION IN WEBSITE

The contents of the university website are very important as it presents and disseminates the current information and activities of the Institution to the public. This is the responsibility of the appointed university content providers and website administrators. The main challenge here is content ownership and timely updating of information on the website.

- a. DELSU shall ensure that the website information and contents are standardized, secured and controlled, according to the requirements and specifications of the university management.
- b. The University shall appoint website administrators to manage the university website as well as other Faculty/Institute/Directorate/Unit webpages.
- c. The university shall provide guidelines, specifications and procedures for preparing information to be uploaded on the website

5.3 ICT PROJECT MANAGEMENT

ICT Projects are generally risky and shall therefore be best managed using the best Project Management approaches and practices. Due to technological innovations, ICT projects are now increasingly complex, necessitating adequate staffing with required skills and experience in project management.

1. DELSU shall ensure the development of project management guidelines which will be used to manage all ICT projects.
2. The University shall ensure that every ICT project is approved as a complete set that will deliver the expected result by the end-user in a sequential and logical approach.
3. Every service supplied by an external entity shall during and upon completion of implementation be managed through a well-documented and enforced level agreement.
4. All Project shall be properly and adequately documented.

5.4 UNACCEPTABLE USAGE OF ICT INFRASTRUCTURE

This may be summarized as, but not restricted to:

- i. actions, which cause physical damage to any ICT hardware and software, including peripherals (e.g., mouse, cables, wiring, printers, etc.);
- ii. creating, displaying or transmitting material that is fraudulent or otherwise unlawful, inappropriate or likely to cause offence;
- iii. threatening, bullying, intimidating or harassing staff, students or others.

- iv. Intellectual property rights infringement, including copyright, trademark, patent, design and moral rights;
- v. defamation; and
- vi. unsolicited advertising often referred to as "spamming".

5.5 ICT BREACH MANAGEMENT

- Any noticeable or reported breach shall be investigated to determine whether it was accidental or deliberate in order to determine the most appropriate action to be taken.
- Users who are found to have breached Delta State University ICT policy shall face disciplinary measures.
- Management of a breach of policy shall be determined by the facts of the matter.
- Penalties shall be applied in line with university misconduct processes set out in the applicable employment instrument, contract of employment or university status and may include:
 - suspending the user's university access to ICT facilities;
 - withdrawal of benefit; and
 - dismissal.

5.5.1 DATA PROTECTION

The University's position on disclosure of information/information in transit is as follows:

- all Faculty/Staff and students at the University shall be notified of the reasons why their information will be held in the University database, how it will be used and the institutions or establishments that the University might share such information with;
- the personal data obtained from Faculty/Staff and students shall be adequate, relevant and not excessive in relation to the purpose(s) for which they are being requested;
- the Faculty/Staff and students of the institution shall have the right to access data or information held concerning them, subject to approval from the University Management; and

- access to an individual's personal information shall not be given to persons other than the individual concerned or other authorized personnel except where there is a statutory requirement to do so.

5.5.2 ANTI-VIRUS

The University shall activate and use encryption services with anti-virus protection in all cases where a device requires such services.

5.5.3 ANTI-PIRACY

The University shall not tolerate unlicensed or pirated software on her network in order to respect ownership of Intellectual Property rights and avoid litigation.

6.0 SYSTEM AUDIT AND INVESTIGATION

- If any computer system or facility is threatened, it shall be monitored, and user files shall be examined under the directive of the Vice-Chancellor.
- All governmental and law enforcement orders requesting the viewing of user files must be complied with by the University. This might happen if:
 - there is good reason to believe that a user has broken this rule;
 - a user or account seems to be involved in strange conduct;
 - it is necessary to protect the integrity, security, or functionality of Delta State University's technology resources;
 - it is necessary to protect Delta State University from liability; or
 - it is required by law.

6.1 ENFORCEMENT AND DISCIPLINARY PROCEDURES

Any user who violates any part of this policy shall be subjected to the following:

- Suspension or revocation of the user's computer account and/or suspension or revocation of access to the University's Internet resources.
- Disciplinary action as described in DELSU staff/students regulations.
- Disciplinary procedures outlined in Delta University's Staff Handbook or any other documents outlining conduct for faculty, staff and students.
- Civil or criminal prosecution under federal and/or state law.

6.2 PROCEDURE TO UPDATE THE POLICY

- Delta State University reserves the right to update and/or amend this document to reflect University policy changes and/or state or federal law.
- Ignorance of this policy (or those that it directs individual to), and the responsibilities it places on individual, shall not be an excuse in a situation where it is assessed that an individual has breached the policy and its requirements.
- Students, Faculty/Staff who connect their own devices to the University network and the services available shall be reminded that such use requires compliance with this policy.
- Students shall be informed of this policy during their induction each year and shall acknowledge their readiness to adhere and comply with the policy each time they log on to the University network.
- Staff members shall be informed of this policy during their induction and the need to adhere to the conditions therein.

7.0 INTELLECTUAL PROPERTY (IP)

The material set forth in this section covers the ownership and commercial development of the technology developed by Delta State University faculty, staff, and students and others participating in Delta State University programs.

The principal rights governing the ownership and disposition of technology are known as “intellectual property” rights, which are derived primarily from legislation granting a patent, copyright, trademark and integrated circuit mask work protection. In some instances, the distribution and commercialization of technology may be accomplished by the transfer or licensing of intellectual property rights, such as patents and copyrights.

Computer programmes can be found in almost everything in this age – from cars to wristwatches. The Internet of Things is becoming more popular; people are connecting everyday items to the internet to increase functionality. Items as basic as coffee makers, lamps and washing machines are being integrated into the internet. This is just one use of computer programmes. Research is now heavily dependent on artificial intelligence, powered by such programmes.

Even more, creating computer programmes has never been as easy as it is today. In a few months, any person with a mobile device or a computer and an internet connection can learn to create one. There is an explosion of self-taught software developers. These programmes have become an integral part of modern culture. Therefore, there is a need to know the legal implications of all the source codes existing; specifically, as it relates to intellectual property rights, the rights of the authors, and the rights of the general public.

It is a generally accepted principle that a man should have the right to reap what he has sown. This principle extends to allowing people to gain profits from whatever efforts they have exerted. This is one of the justifications of the intellectual property regime. There is also the fact that protecting such computer software will urge more people to create technology which will be useful to the general public. It is because people know that there is potential profit if a marketable technology is created that they will continue to expend resources on creation.

Where there is no legal protection, individuals and organisations alike will generally not be motivated to invest much in the creation of modern technologies. It would also encourage secrecy, and thereby stunt growth and the spread of knowledge. This is especially true for a sector like software development, which is heavily reliant on building on previously available technology. Without such rights, there would be nothing to stop freeloaders from taking advantage of the intellectual creation of others. All they would need to do is market the software, obtained at little or no cost.

Thus, this policy not only defines the intellectual property rights associated with the technology, but also the policies and procedures for its use and distribution in tangible form, which will govern its ownership, distribution, and commercialization rights.

Objectives

The Delta State University has adopted this Intellectual Property Policy for the management of Computer Programmes intellectual property to:

- ensure compliance with applicable laws and regulations governing intellectual property rights;
- promote, preserve, encourage and aid innovation in the University;

- uphold and entrench the principles of integrity and ethics to ensure honesty and responsible conduct in Scholarship, Innovation and Research;
- provide an organizational structure and procedure through which innovations, inventions, and discoveries made in the course of university research may be made readily available to the public;
- establish standards for determining the rights and obligations of the University, inventors and other creators of intellectual property and where applicable, external sponsors with respect to inventions, discoveries and works created at the University;
- encourage the provision of mutually beneficial rewards to the University and its members who generate outcomes from research and facilitate its development into useful processes, products, and services that are beneficial to the public; and
- provide guidelines for intellectual property right ownership in innovation activities involving external collaboration.

7.1 PERSONS COVERED BY THE POLICY

This policy applies to members of the university ICT community who use facilities or resources of Delta State University or who participate in university research to develop intellectual property.

7.1.1 Subject Matter of the Policy

This policy covers all intellectual property including but not limited to patents, trade and service marks (including the logo and insignia of the Delta State University), industrial designs, copyright, utility models, computer programmes, technology-based materials in online courses and distance learning.

7.2 OWNERSHIP OF INTELLECTUAL POLICY

(a) University Ownership

The University owns all rights on intellectual property developed by any person covered by this Policy in the course of his/her employment or engagement with and/or enrolment in the University and developed as a result of university support. Where

such software(s) has been funded by a sponsor under a grant or sponsored agreement with the University, or is subject to a material transfer agreement, confidentiality and non-disclosure agreement, or other legal obligations restricting ownership of the intellectual property, ownership shall be mutually agreed upon by all parties with guidance from this Policy.

(b) Conflicts of Interest

For the purpose of avoiding conflicts of interest, the following shall apply:

- where there are significant contributions including Background Intellectual Property (BIP) from another legal entity in partnership with a member of staff, to a proposed software development, the Innovators shall duly inform the University about the existence of such contributions;
- it is the responsibility of the Innovators to clearly document and present the share of contribution from all participatory institutions and collaborators to the University;
- the University shall have the sole right to ownership arising from the use of university resources towards the creation of intellectual property; and
- it is a conflict of interest for people covered by this Policy to accept sponsorship from a company in which they have significant financial interest without full prior written disclosure of such interest.

7.3 Use of University Name and Insignia

The name “Delta State University”, and University insignia, marks and symbols including, but not limited to the official seal and logo, have significant value.

- The University and its members have a responsibility to ensure that any implied association with the University is accurate and that the activities with which it is accurately associated maintain standards consistent with its educational, research, and related purposes.
- The University and its members have a responsibility to protect its assets by seeking a fair share of the economic value that the use of the University name or insignia produces.

- The use of regulation in this article/paragraph refers to the identification, statement, or display of the University name or insignia in any way that may reasonably be interpreted as implying endorsement, approval, or sponsorship by the University or one of its faculties, departments or units.
- The University, a department, or a unit may authorize outside individuals or entities to use its name only with the necessary prior approval, taking into account the general criteria of accuracy and appropriateness.
- In granting approval for the use of the name and insignia of the University, the following factors shall be taken into consideration.
 - (a) Whether the association between the University and the activity, product, or publication is accurately represented.
 - (b) The type and manner in which the activity, product, or publication is associated with the University's name is in keeping with the mission of the University in terms of education and research.
 - (c) Whether satisfactory arrangements have been made concerning the interest (if any) to be held by the University in intellectual property and income resulting from the proposed activity.

7.4 Disclosure Principles

The importance of the Disclosure Principle includes the following:

- in order to ensure maximum protection and utilization of an invention or creation, the inventor/creator must disclose such invention by submitting a duly completed Invention Disclosure Form at the ICT Directorate within ninety (90) days of the identification of the IP (*Intellectual Property*);
- the invention disclosure form shall be accompanied by a memorandum of invention stating a brief description of the inventions, a statement of claim(s), explanatory drawings (where applicable), a summary, and other data disclosing the nature and purpose of the invention;
- submission of the duly completed memorandum of the invention within the period prescribed above shall form the basis for determining the patentability of

such invention. ICT Directorate shall within the shortest possible time communicate the outcome of its patentability search to the inventor and;

- invention disclosure shall constitute official notice of the invention to the University.

7.4.1 Premature Disclosure in Case of Patents

The cases itemized below constitute premature disclosure.

- In order to preserve the novelty of IP developed at the University, no such IP shall be made public in any way through submission for publication or presentation to others prior to its disclosure to the ICT Directorate and its appropriate filing at the Patent registry.
- Such IP shall seek and obtain clearance from ICT Directorate for publication or presentation as the case may be.
- An invention disclosed prematurely shall not be patentable. The following, without limitation, shall constitute premature disclosure:

(a) Disclosure through poster sessions

(b) Internet/Social Media Adverts/Publication

(c) Other descriptions of an invention in any manner which renders it accessible to the public; and

(d) Any other dealings, which in the opinion of the ICT Directorate constitute a premature disclosure.

- Filing of the Invention Disclosure Form at the ICT Directorate shall not constitute premature disclosure for the purpose of protection.

7.5 Obligations of the Parties

The following constitute the obligations of the parties involved in the Software Intellectual Property:

- in all cases where intellectual property is disclosed in the manner prescribed under this Policy, the ICT Directorate shall consider the

submission. If the decision is to pursue the protection of IP, the Office shall take steps to file relevant applications for the registration of IP;

- where the ICT Directorate cannot, or decides not to pursue the patent protection, it shall within sixty (60) days notify the inventor accordingly, and ownership of intellectual property shall thereupon revert to its inventor;
- an inventor shall ensure thorough and timely disclosure of all inventions, discoveries, and other works of intellectual property to the ICT Directorate; and
- an inventor shall provide all necessary assistance to the ICT Directorate for the purpose of registration of the IP.

7.5.1 Confidential disclosures

All confidential information received in the Invention disclosure form, report of the invention. Memorandum of the invention and other means relevant thereto shall be kept confidential and may be disclosed only to authorized agencies, or on the order of a court of competent jurisdiction.

7.6 TECHNOLOGY TRANSFER POLICY

The following form part of the Technology Transfer Policy of the University:

- technology shall be transferred through an agreement between the University and a third party that is granted a license to use the University's intellectual property rights in the defined computer programme. The licensee may be an already existing company or a new startup;
- licenses approved by the University for commercial uptake of inventions or creative works shall include terms that require the licensee to meet certain performance requirements and to make financial payments to Delta State University, Abraka. The payments shall be shared among the inventors, the Department of the inventors, ICT Directorate, and the University according to an agreed sharing formula stated below; and

- computer programme can only be transferred through the formal licensing of the software to third parties, managed and administered by the ICT Directorate. This seeks to:
 - (a) ensure that emerging IPs from computer programmes and technological outcomes from students and faculty members are used for the overall good of the University, its immediate communities, industries as well as society at large;
 - (b) help students and faculty members to generate problem-specific solutions that shall endear the University to its industry partners and other external stakeholders;
 - (c) mobilize scientific and technological outcomes from students and faculty members to the private sector for further development and commercialization;
 - (d) translate software discoveries from Delta State University into new technologies;
 - (e) create incentives for the practical application of more software development and;
 - (f) negotiate licensing agreements for promising scientific and technological outcomes.

The process of software transfer in the University is summarized in three steps as follows:

- (a) licensing;
- (b) commercialization; and
- (c) revenue.

7.6.1 Licensing

A License agreement shall be a contract between the Delta State University and a third party for the commercial uptake of a computer programme in which the University's rights to a technology are licensed for financial returns and other benefits.

7.6.2 Commercialization

For the purpose of commercialization of the IP, the following should be considered:

- commercialization of intellectual property shall include licensing, joint ventures, start-up or spin-off companies and assignment;
- remuneration for licenses, assignments or other forms of exploitation shall be by way of lump sum payments, royalties, license fees, milestones, or other forms as may be agreed between the parties; and
- decision as to commercialization of intellectual property shall take into account the interests of the University, the public and the inventor.

7.7 Evaluation and Commercial Development

The ICT Directorate shall evaluate and determine the most appropriate commercialization model for the selected software. The Delta State University, Abraka, through ICT Directorate and the inventor, shall have collective responsibility for the commercial development of selected technology. Acting within its broad discretion and in good faith, the University will seek to maximize the value of intellectual property. To this end, the ICT Directorate, in consultation with the inventor, may:

- (a) publish and advertise the software as it deems appropriate;
- (b) assist in finding a partner for the University or a sponsor for the inventor;
- (c) negotiate and manage agreements that are consistent with this policy; and
- (d) ensure that the necessary legal instruments are prepared to achieve the technology transfer goal.

7.8 Inventor, Creator and Author's Responsibilities

- The inventor, creator or author of any intellectual property is required to disclose inventions, discoveries and other new intellectual property to the ICT Directorate in a thorough and timely manner.
- The inventor, creator, or author shall abide by all commitments made in the license, sponsored research and other agreement in compliance with all laws and regulations related to the research and its exploitation.

- The inventor, creator, or author shall also provide such assistance as may be necessary throughout the technology transfer process to realize the goals and objectives set forth in this Policy.
- The inventor, creator or author has the further responsibility to work with the ICT Director to properly consider, disclose, manage and resolve any possible conflicts of interest arising from agreements to commercialize intellectual property.

7.9 Revenue Sharing

The revenue received by the Delta State University, Abraka from licensees and commercialized softwares shall be shared among the inventors, the Department of the inventors, ICT Director, and the University according to an agreed sharing formula for the purpose of funding and sustaining innovation in the university.

7.9.1 Costing

Costs of expenses incurred in the creation and commercialization of intellectual property shall be determined professionally in accordance with best practices, Delta State University's extant regulations on financial matters, relevant laws and the agreement between the parties.

7.9.2 Royalty Sharing:

The University shall share royalties and other incomes derived from the licensing, assignment or other exploitation of intellectual property including transfers of computer programmes involving licensing of non-patented technology and material transfer agreements with the inventor unless prohibited or restricted by a third-party agreement. Royalty sharing shall be based on net income as follows:

- 35% shall be allocated to the inventor(s) in their personal capacity; and
- 35% shall be allocated pro rata to the environment(s) of the Innovators, inventors, as follows:
 - (a) 5% shall be allocated to the University Inventions accounts.
 - (b) 25% shall be allocated to the Department/Unit/ of the Innovator.

- (c) 5% shall be allocated to the Innovator's Faculty. Those funds shall be applied for inventions only and shall not be allocated to any individual for personal gains;
- (d) 30% shall be allocated to the Central Account of the Delta State University for general purposes out of which 50% shall be dedicated to sustaining DELSU as an Innovation workspace.
 - Approval of payment based on an agreed formula for sharing intellectual property income shall be made by the Vice-chancellor on the recommendation of the ICT Directorate.

7.10 Protection of University Interest

In the event of a transfer of interest by license or assignment, the ICT Directorate shall ensure that the interest of the University, freedom of its members of staff, students and external collaborators are retained through the following:

- (a) an irrevocable, non-exclusive license for softwares and education purposes that includes the right to grant sublicenses to non-profit bodies for collaborative research purposes;
- (b) guaranteed protection of the University, its members of staff and students and external collaborators or partners from the costs of disputes among the inventors or otherwise arising from any reassignment of the IP;
- (c) an assurance that the IP is taken "as it is" and without warranties, including those of validity, enforceability and freedom to operate;
- (d) a guaranteed protection of the University; its members of staff and students and external collaborators or partners from the costs of product liability and other lawsuits arising from future commercialization of the IP and;
- (e) a commitment that revenue from future commercialization, if any; ensures the reimbursement of the expenses incurred prior to reassignment.

7.11 DISPUTE RESOLUTION

Any dispute (contractual or otherwise) however arising from or in connection with the interpretation and implementation of the Policy or incidental matters pertaining thereto

shall, in the first instance, be referred for mediation by the Dispute Resolution Committee (DRC). A Notice of Mediation shall be delivered at the Delta State University ICT Directorate and the DVC shall within fourteen (14) days of receipt thereof constitute the dispute resolution Committee which shall comprise members of the IP committee with additional members of faculty/departments to represent the interest of the faculty/departments that are affected in the dispute:

- The Deputy Vice-Chancellor (Admin) as Chairperson.
- The Director, ICT Directorate.
- The Provost of the College/Dean of Faculty of the member(s)
- The Head of the Department of the members of staff/student author inventor.
- Head, Legal Services Unit of the University.
- Two members from the industries will be coopted as members of the Committee if one of the aggrieved parties is a non-member of the University community.
- The Secretary of the Dispute Resolution Committee (DRC) shall be a member of the staff of the ICT Directorate.

Where a party is not satisfied with the decision of the DRC or the DVC (Admin) is, for whatever reason is unable to constitute the DRC within the time specified above, the dispute shall be referred to arbitration by a Sole Arbitrator, under the Arbitration and Conciliation act cap A18 Laws of the Federation of Nigeria 2010 or as amended from time to time.

- (a) The aggrieved party shall cause to be issued a notice of dispute.
- (b) The parties shall within fourteen (14) days of the issuance and delivery of the Notice of Dispute to the other party or parties appoint a Sole Arbitrator to determine the dispute.
- (c) In the event that the parties are unable to agree on a Sole arbitrator, any party may, after the expiration of fourteen (14) days thereof, apply to the Chairman or President, for the time being of the Chartered Institute of Arbitrators (CI Arb), Nigeria to appoint a Sole Arbitrator.
- (d) An ensuring award shall be final and binding between the parties.

- (e) The Sole Arbitrator shall have the power to grant all remedies known to law and equity and shall have the power to award interest thereon.

7.12 BREACH OF CONTRACTS

The following constitute breach of contracts:

- any act in breach of the terms and conditions stated in non-disclosure, materials transfer, licensing and commercialization agreements of this Policy including failure to comply, disclose or submit other information required by this policy, or failure to comply with licensing and commercialization terms shall be handled as specified in the section under Dispute Resolution as may be considered necessary and appropriate;
- breach of any terms and conditions in the agreements involving members of the university community (faculty, students) after being dispensed by the Dispute Resolution Committee shall be further processed to the appropriate organ of the University for administrative adjudication and necessary disciplinary proceedings; and
- any breach of the terms and conditions relating to any agreements under this innovation and technology management policy by external partners or collaborators in innovation, invention and creative works shall be subjected to the provision in this policy as stated.

7.13 SUSTAINABILITY

For the purpose of ensuring the sustainability of the University as an Innovation Workspace for its staff, students and external collaborators for greater societal impact, this policy shall ensure the establishment of an institutional framework for financial stability. The University shall pursue sustainable funding through the following sources:

- budgetary allocation from the University;
- innovation and patenting line charge on every software proposal approved for grant;
- income from patent drafting/filing services offered to members of the public;

- a fixed percentage of Income is generated from licensing, commercialization and technology transfer services on university-generated innovations and creative works;
- income from syndicated training and education programs on innovation and technology management;
- sponsorship support from external partners; and
- solicit, secure and administer partnership funding for prototype development. Such funding shall not be deployed to offset personnel costs, honoraria and any other incidental cost not directly related to prototyping.

8.0 REVIEW OF POLICY

This policy shall be due for review every three years except if there are compelling mitigating circumstances that make urgent review necessary.

8.1 PROCEDURE TO UPDATE THE POLICY

- Delta State University reserves the right to update and/or amend this document to reflect University policy changes and/or state or federal law.
- Ignorance of this policy (or those that it directs individual to), and the responsibilities it places on individual, shall not be an excuse in a situation where it is assessed that an individual has breached the policy and its requirements.
- Students, faculty/staff who connect their own devices to the University network and the services available shall be reminded that such use requires compliance with this policy.
- Students shall be informed of this policy during their induction each year and shall acknowledge their readiness to adhere and comply with the policy each time they log on to the University network.
- Staff members shall be informed of this policy during their induction and the need to adhere to the conditions therein.