

**THE PAPUA NEW GUINEA
UNIVERSITY OF
TECHNOLOGY**



**INFORMATION &
COMMUNICATIONS TECHNOLOGY
POLICY**

1.0 Introduction

Information and Communications Technology (ICT) embraces the application of several sciences and engineering to the *enhancement of human performance* in a wide range of activities by facilitating the acquisition, transfer, processing, assimilation and utilisation of information. The Information Technology environment includes: people, computing hardware, systems software, applications software, electronic communications systems (voice, data and video), documentation, user support, information sources (library management systems and management information systems), typesetting and publishing systems, audio-visual facilities, language laboratories and other educational technology resources.

An important aspect of Information Technology is the integration of these component technologies into people's working, learning and leisure activities to create more useful, effective and satisfying systems. And this is further emphasised in its vision:

Providing leading edge Information and Communications Technology (ICT) solutions through academic learning, research and teaching and services for all university constituents.

The University recognises that computers, telecommunications and other information processing technologies are essential to the effective and efficient operation and management of almost every component of the organisation. Therefore the University accepts as one of its highest priorities the successful exploitation of Information Technology.

Consequently, the University recognises the need for a comprehensive Policy, embodied in this document, to ensure the most effectual introduction. Application and management of information processing technology to provide the maximum benefit to the University and to the majority of the people who are associated with it.

- 1.1 It shall be the policy of the University to endeavour to achieve and maintain the following objectives at the earliest possible opportunity. Achievement of objectives will be controlled by an Information and Communications Technology Strategic Plan (ICTSP).

2.0 Objectives

2.1 Productive Environment, Technology and Integration

To create an environment in which Information and Communications Technology can be used effectively to provide maximum benefits to the University and its people in the conduct of teaching, research, administration, commercial and community service activities.

To improve the productivity and efficiency of people, groups, sections, departments and other functional components of the University.

To ensure the technology being used by the University for the generation, transfer and processing of information is the most appropriate to meet local needs and conditions. To promote the integration of component technologies and the integration of information systems to enable widely and conveniently used by people in or served by the University whilst maintaining adequate protection and control of that information.

2.2 Human Resources and Human Development

To promote human resource development in the University and to ensure appropriate working conditions and training are introduced and maintained. Also to ensure that the University's Information Technology user's are adequately consulted and prepared for the emerging changes, that will affect them.

2.3 Policy Administration

To establish an Information & Communications Technology Policy Advisory Committee (ICTPAC) to develop. Implement and oversee the University Policy and Planning in matters of Information and Communications Technology.

2.4 User Participation

To foster the establishment of an Information Technology User's Group within the University to provide a useful forum for users to discuss their concerns and to represent their interests to the ICTPAC as well as to other executive bodies, service units, etc.

2.5 Strategic Planning

To establish an ongoing strategic planning process to achieve and maintain the aims and objectives of this Policy as detailed below.

2.6 Standards, Procedures and Guidelines

To establish Standards, Procedures and Guidelines for the acquisition and use of Information Technology by the University.

2.7 Effective Administrative Information Systems

To ensure proper implementation of corporate management and administrative information systems, utilising appropriate communications systems to provide the University with the most suitable and cost-effective administrative support within the scope of available financial resources and to provide all personnel with reliable and timely information necessary for the execution of their duties.

2.8 Educational Technology

To promote the application of appropriate educational technology systems to enhance the quality and productivity of teaching and skills training activities throughout the University.

2.9 Leadership

To enable the University to take a leadership role as a centre of expertise for the introduction and development of Information Technology in Papua New Guinea and its wider geographical region.

2.10 Regulation

To ensure within the University the proper regulation of the use of Information and Communications Technology to prevent abuses and to ensure compliance with current legislation and ethical standards.

2.11 Dissemination of Information

To facilitate awareness and discussion of this Policy's aims and implementation throughout the University to ensure that it is able to influence University's planning at all levels.

2.12 Funding

To ensure the provision of adequate funding to enable the implementation of the other objectives of this Policy within an acceptable time scale.

3.0 Scope

This Policy will regulate the planning and implementation of Information Technology in all aspects of the operation of the University administration, teaching and research.

This policy covers all computer systems, data communications, voice and video communications equipment and all other equipment and systems used by the University for the acquisition, transfer, display, storage and processing of information, whether acquired from re-current budget, special grants, aid funding, donations or any other source whose benefits accrue to the ownership or responsibility of the University.

4.0 Implementation Strategies

4.1 Productive Environment, Technology and Integration

The University is committed to provide an environment increasingly rich in information technology resources to support productivity, efficiency and advance teaching and learning activities. The University will encourage the development of a variety of resources by establishing shared facilities where such resources cannot be economically acquired by individual departments or units.

Distribution of facilities and expertise will be encouraged where this can be shown to be relevant to local needs and cost-effective. However all areas seeking distributed facilities must be able to demonstrate the ability to house, maintain and support them.

The University will develop campus and external networking facilities so that electronic communication can be established reliably and conveniently between parties requiring internal, national and international communication of data, video and voice information.

The University places a high priority on the integration of component technologies and the integration of information systems to maximise the utilisation and value of information in the organisation whilst maintaining adequate protection and control of that information.

The University will avoid the indiscriminate collection of incompatible equipment and software by specifying and supporting approved items complying with public or international standards wherever appropriate.

The University will give favourable consideration to Information Technology developments which enrich the user's experience and will seek to avoid changes which have a negative effect on the user's health, work-satisfaction or social condition.

Use of the University's Information Technology facilities by external parties will be allowed provided that it does not reduce the service to University user's nor contravene any legal obligations.

In accordance with its mission of Community Service the University will endeavour to provide assistance with Information Technology applications in community development projects subject to formal consultation with the Appropriate Technology Community Development Institute.

4.2 Human Resources and User Development

The University requires its departments and functional units to ensure that: Proper and timely consultation and counselling shall take place with all levels of personal and other user's likely to be affected by the introduction of information technology developments, to facilitate understanding and acceptance;

Training at all levels in the organisation shall be undertaken to ensure that all personal who will use Information Technology are taught the necessary skills as early as possible;

Specialist training for technical support staff shall be given a high priority;

Where Information Technology activities cross-departmental or organisational boundaries, proper co-ordination shall occur between all parties on matters of planning, implementation, training and operation.

The University will ensure that appropriate recommendations for human resources planning are included in the Information Technology Strategic Plan to address the following concerns:

The requirements for additional staffing and/or retraining of existing staff must be properly assessed and co-ordinated with the implementation of new projects;

Suitable training courses should be developed and run within the University wherever applicable;

Adequate funding and time-release must be secured to permit personal to attend essential training which has to be provided outside the University.

The University will ensure that appropriate recommendations are made to the Localisation and National Staff Development Committee, the Staff Development, the Teaching and Learning Methods Unit, and the Vice Chancellor's Committee, as the need arises, for the specification and establishment of the following in relation to personnel involved in Information Technology activities:

Appropriate position specification/ duty statements;

Suitable staffing structures and career paths;

Suitable selection criteria and skills requirements;

Suitable training programs;

Suitable working conditions; and

Guidelines on health and safety aspects of the introduction and use of Information Technology.

The University will encourage and assist its personnel to gain membership of appropriate professional associations, societies and interest groups related to the field of Information Technology.

4.3 Policy Administration – ICTPAC

The Information Technology Policy Advisory Committee (ICTPAC) was established by the Vice Chancellor and approved by the VCC. This committee replaced the former Computing Services Policy Committee and assumed all of the responsibilities of that former committee within its broader set of terms of reference.

4.4 User Participation

The University will foster the establishment and continuance of a representative **Information Technology User's Group (ITUG)** which in addition to providing a discussion forum for information technology users in the University, will be recognised by the University as the principal body to represent those users interests on the ICTPAC.

The users group shall be allowed to develop its own constitution and operate without interference as far as possible, provided only that the ICTPAC is satisfied that its constitution is adequate and fairly representative of the user community, including students, without undue restriction or discrimination.

One member elected from and by the ITUG shall represent that Group as a member of the ICTPAC.

The University will provide access to adequate meeting facilities, without charge, to enable the ITUG to conduct its business.

4.5 Strategic Planning

The ICTPAC will create and sustain an Information Technology Strategic Planning Working Group to develop and annually revise an Information Technology Strategic Plan which shall form an essential component of the overall Strategic Plan for the University.

The Information Technology Strategic Plan shall be produced on a rolling triennium basis. That is, the strategies will be developed to cover a three year period and at the end of each year the planning for the remaining two years will be reviewed and revised, adding further planning for an additional year.

The Strategic Plan shall include recommendations for human resources planning.

4.6 Standards, Procedures and Guidelines

The Information Technology environment is continuously and rapidly developing.

To avoid inefficiencies arising from inappropriate combinations of equipment, software and methodologies, and to maximise the benefit from investment in these technologies, it is essential to develop and apply an adequate set of standards for acquisition and utilisation of equipment, software, communications facilities, materials etc.

For this purpose the ICTPAC will create and sustain an Information Technology Standards Working Group, charged with creating and revising an adequate set of standards and documents which will be used as a basis for implementation of this policy. The Standards shall be revised at least annually, more often when necessary.

In order to clarify matters of interpretation or detail regarding this policy and its associated Strategic Plans, Standards, Rules and Procedures documents the ICTPAC will issue occasional Guideline documents in implementation of the Policy. Such Guidelines are to be included as addenda to the primary documents. For the purpose of preparing such guidelines, the committee temporarily assign an individual or ad-hoc Working Group at its discretion.

4.7 Effective Administration of Information Systems

The University actively encourages the adoption of Information Technology systems for effective support and improvement of its administrative purposes wherever this can be achieved in a cost-effective way.

The University requires that its administrative information processing systems will provide a high level of security for its sensitive and confidential information whilst also enabling ease of access to and sharing of that information among authorised members of its personnel.

The University requires that its administrative information processing systems will be planned and implemented with maximum integration or compatibility to facilitate collection and dissemination of information across corporate, departmental and system boundaries wherever necessary.

The University imposes no restriction of centralised operation of such systems, but encourages direct departmental management of systems wherever space, facilities, capable staffing and practical operating considerations permit. It also encourages the acquisition of ready-made systems and products in preference to their local development provided that they can meet the other criteria of this policy.

The University will avoid the indiscriminate acquisitions of systems which provide partial solutions but do not fit with the above requirements to integrate or interface with other systems where it is clearly desirable that they should. The University will also endeavour to replace incompatible or unsatisfactory systems with more suitable systems as soon as resources permit.

The University will exploit modern networking technology to facilitate the integration and operation of its administrative information systems in conformance with computer networking and telecommunications strategies, standards, rules and guidelines to be developed and revised from time to time in accordance with sections of this policy.

4.8 Education Technology

The University will actively encourage staff and students to use information technology wherever this can improve their teaching, learning, research and other University activities. The University will encourage all departments to include some significant and appropriate information technology experience as part of diploma and degree courses.

Academic and support staff should adapt, develop and experiment with information technology applications which can suitably contribute to delivering, measuring and managing student learning.

4.9 Leadership

The University will endeavour to provide regional, national and international leadership in the field of Information Technology by the following means:

- 4.9.1 Attracting and employing information technology specialists of the highest calibre in all relevant areas of teaching, research, administration and support services;
- 4.9.2 Providing ample opportunities and encouragement for such staff to also engage in consultancy;

- 4.9.3 Providing ample opportunities and encouragement for such staff to engage in relevant research and development;
- 4.9.4 Making budget provisions to enable adequate funding for projects, feasibility studies and purchase of representative item for the evaluation of the suitability or comparative performance of new Information Technology products;
- 4.9.5 Seeking representation on national and international committees and other bodies established to influence the implementation and development of Information Technology;
- 4.9.6 Promoting the dissemination of knowledge and skills in this field beyond the confines of the University through the sponsorship of conferences, workshops, teaching courses, community services and public demonstrations of effective applications.

4.10 Regulation

It is widely recognised that information and its processing technology can be seriously misused to the detriment of individuals and organisations.

As a public institution of national importance, the University requires that all its activities and activities of all individuals for whom it is responsible, must be controlled correctly within the laws of Papua New Guinea, and must be at all times with professional approach.

In Addition to protecting its legal responsibilities, the University will maintain high reputation for fair dealing and irreproachable professional and their activities.

In particular, the University recognises the need to protect the rights of individuals in instances such as privacy of personal information, prevention of unfair distribution of data by means of Information Technology.

The University recognises the need to control this ownership and exploitation of selected property and inventions in the field of Information Technology. This is to safeguard the intellectuals and properties and is only to be utilised by the University and its departments in the University or in association with member institutions.

In order to address these concerns the ICTPAC will establish through an assigned Working Group a set of Rules to govern and use to prevent the abuse of Information Technology of the University. These Rules will be authorised by the University.

In the matter of dispute arising from or interpretation of these rules the ICTPAC will provide advice to the Vice Chancellor who shall have the final adjudication.

4.11 Dissemination of Information

The ICTPAC will facilitate the dissemination of relevant information by the following means:

- 4.11.1 Copies of this Policy, Standards, Rules, procedures, Guidelines and selected documents will be distributed to all departments and made available to interested members of the University community;
- 4.11.2 Foster the development of advisory and educational services to encourage the rapid implementation of Information Technology based activities by new users as well as existing users;
- 4.11.3 Facilitate the regular publication of an Information Technology newsletter;
- 4.11.4 Encourage communication amongst Information Technology users and user groups;

4.12 Funding

The University will endeavour to provide adequate financial resources under the normal budgetary system for recurrent expenditure and capital funding to establish and maintain an appropriate Information Technology infrastructure as specified by the Information Technology Strategic Plan. For this purpose, the University shall establish a budgetary strategy for the level of capital and recurrent expenditure to be committed annually on Information Technology Systems so as to ensure timely renewal/ replacement of aging systems as well as new acquisitions.

The University will ensure that academic departments and technical support sections are provided with budgetary mechanism to enable adequate funding for pilot projects, feasibility studies for purchase of representative items for the evaluation of the suitability or comparative performance of new Information Technology products.

The University may also adopt any of the following funding arrangements to assist in funding information technology resources:

- 4.12.1 Undertake to commercialise feasible Information Technology activities to enable the University or a financial unit of the University to subsidise its operational costs.
- 4.12.2 Securing gifts, donations, special grants or aid funding through University-approved channels.

If necessary, the ICTPAC will assign a temporary working group to assist the Vice Chancellor's Committee to devise suitable budgetary strategies.

5.0 Implementation

Within the scope of their operations, all departments and financial units of the University are charged with the responsibility for implementing the policy, strategies, standards and guidelines developed by the ICTPAC and authorised by the Vice Chancellor.

Where the scope of implementation is across a campus or campuses, or involves centralised or shared services, responsibility for implementation will be assigned to the appropriate support service departments (e.g. Information Technology Services, Library, Central Facilities etc.).

6.0 Policy Review

The ICTPAC will review this policy at such intervals, as it deems necessary, but no longer than three years, and recommended amendments as and when necessary to be implemented.

THE INFORMATION & COMMUNICATIONS TECHNOLOGY POLICY ADVISORY COMMITTEE (ICTPAC)

1. Terms of Reference

The responsibilities of ICTPAC are:

- (a) To develop and review Information Technology policy and procedure for the University;
- (b) To advise the Vice Chancellor's Committee on Information Technology policy matters in the University;
- (c) To ensure the researching, developing, monitoring, evaluating and establishing of strategies and procedures for acquisition and use of Information Technology by the University constituents in conformance with this Policy;
- (d) To consult with Chairpersons of all University Committees and all Heads of Departments as appropriate;
- (e) To establish standards for Information and Communications Technology sector within the University;
- (f) To establish human resource strategies for exploitation of Information Technology by the University;
- (g) To devise rules of conduct and conditions of use within the University for the proper utilisation of Information Technology;
- (h) To represent the University in Information Technology matters in its interaction with government and other organisation;
- (i) The Committee will report directly to the Vice Chancellor.

2. Constitution

The ICTPAC will consist of 14 members selected as follows:

Ex-officio members

- (i) Vice Chancellor
- (ii) Pro Vice Chancellor (Admin)
- (iii) University Librarian
- (iv) Director of Information & Communications Technology Services
- (v) Director Planning

Appointed members

- (vi) One person appointed by the Vice Chancellor biennially, who shall be the Chairperson;
- (vii) Four persons appointed by the Vice Chancellor biennially at least one of whom shall be a Head of Department from academic departments;
- (viii) One person appointed biennially by the Registrar;
- (ix) One person appointed biennially by the Bursar;
- (x) One person appointed by the Information Technology Users Group;
- (xi) One person appointed annually by the Student Representative Council.

Executive Officer

The Executive Officer shall be the Senior Assistant Registrar (Council).

3. Meetings

The Committee will meet as required, but not less than twice per year. The quorum shall be not less than half the members usually present, or 40% of the full membership.

4. Authority

The recommendations of the Committee will be given effect by the decision of the Vice Chancellor's Committee.

The Committee is empowered to co-opt additional people into its membership for such temporary periods and purposes as it may determine to be necessary.

The Committee is empowered to appoint Working Groups to undertake projects or perform tasks on behalf of the Committee. The Committee shall ensure a balanced representation of academic and administrative interests in the composition of the Working Groups wherever possible.