

6. Minutes of discussions of Basic Design Study

**MINUTES OF DISCUSSIONS  
ON THE BASIC DESIGN STUDY  
ON THE PROJECT FOR THE CONSTRUCTION OF THE UNIVERSITY OF THE  
SOUTH PACIFIC INFORMATION AND COMMUNICATION TECHNOLOGY CENTRE  
IN THE REPUBLIC OF THE FIJI ISLANDS**

Based on the results of the Preliminary Study, the Government of Japan decided to conduct a Basic Design Study on the Project for the Construction of the University of the South Pacific Information and Communication Technology Centre (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA")

JICA sent to the Republic of the Fiji Islands (hereinafter referred to as "Fiji") the Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Mr Osamu Makino, Senior Advisor, Institute for International Cooperation of JICA, and is scheduled to stay in the country from February 8<sup>th</sup> to March 12<sup>th</sup>, 2005

The Team held discussions with the officials concerned of the Government of Fiji and also with the University of the South Pacific conducted a field survey at the study area

In the course of discussions and field survey, all parties confirmed the main items described in the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report

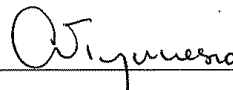
Suva, February 15<sup>th</sup>, 2005



Mr. Osamu Makino  
Leader  
Basic Design Study Team  
Japan International Cooperation Agency



Professor Rajesh Chandra  
Acting Vice Chancellor  
University of the South Pacific



Mrs Alumita Taganesia  
Chief Executive Officer  
Ministry of Education  
Republic of the Fiji Islands

## ATTACHMENT

### 1 Objective of the Project

The objective of the Project is to strengthen the capacity of the University of the South Pacific (USP) to deliver quality ICT education, training and related research and development to more Pacific Islanders through the establishment of the Information and Communication Technology Centre (hereinafter referred as "the ICT Centre")

### 2 Project site

The site of the Project is at the Laucala Campus of USP as shown in Annex-1

### 3 Responsible and Implementing Organization

3-1 The responsible organization is the Ministry of Education

3-2 The implementing organization is USP

The current organization chart of USP (with the proposed ICT Centre) is attached as Annex-2-1

The organization chart of project development for the ICT Centre is attached as Annex-2-2

The organization chart of the ICT Centre is attached as Annex-2-3

### 4 Items requested by the Government of Fiji

After discussions with the Team, the items described in Annex-3 were finally requested by Fiji side. JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval

#### 4-1 Construction of the Buildings and Facilities

Major items are listed in Annex-3-1

#### 4-2 Procurement of the Equipment

Major items are listed in Annex-3-2

### 5 Japan's Grant Aid Scheme

Fiji side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Fiji as explained by the Team and described in Annex-4 and Annex-5 of the Minutes of Discussions signed by both parties on February 15<sup>th</sup>, 2005

### 6 Schedule of the Study

6-1 The consultants will proceed to further studies in Fiji until March 12<sup>th</sup>, 2005

6-2 JICA will prepare the draft report in English and dispatch a mission in order to explain its contents in June 2005

6-3 Upon acceptance of the report in principle by the Government of Fiji and USP, JICA will complete the final report and send it to the Government of Fiji by August 2005



## 7 Other relevant issues

### 7-1 Naming of the ICT Centre

Both sides agreed in principle that the ICT Centre would be named as "Japan-Pacific ICT Centre" for a better cooperation between the Pacific region and Japan.

### 7-2 Curricula at the ICT Centre planned by USP

In the series of discussions USP explained the curricula, including education, training and related research and development programs, at the ICT Centre. The consultants will confirm the further details of the curricula, and then JICA will assess the appropriateness of the curricula for the achievement of the project objective and confirm the consistency between the curricula and the requested items.

### 7-3 Priority in the requested items

The Team explained that the contents of request were expanded through the several revisions by USP, therefore the requested items shall be squeezed to minimum items, numbers and specifications necessary for the achievement of the project objective. USP recognized and promised to give the order of the final priority to the requested items by March 10<sup>th</sup>, 2005.

### 7-4 Lecture Theater and Multipurpose Digital Performing Arts Theater

USP requested two large-scale theaters, the Lecture Theater and the Multipurpose Digital Performing Arts Theater. The Team explained that it was difficult to provide the two large-scale theaters under the policy of the Japan's Grant Aid. The Team proposed combining the two theaters into one air conditioned Multipurpose Theater having a stage and 300~500 seats. USP requested an opportunity to further consider this issue and promised to convey its final view by March 10<sup>th</sup>, 2005.

### 7-5 Procurement of the application software

The Team explained that it was difficult to procure application software which USP wanted because particular software could not be designated in tender. USP recognized and agreed to procure the application software needed for the Project by USP, except for the operating systems.

### 7-6 Criteria for items selection

Both sides agreed on the criteria for items selection as described in Annex-6. Nevertheless, the contents covered by the Project will be finalized after further study in Japan.

### 7-7 Target Year

Both sides confirmed that the ICT Centre would be targeted to become operational in 2008.



7-8 Operation and maintenance

USP agreed to allocate necessary budget and sufficient number of teaching, technical and administration staff for the proper operation and maintenance of facilities and equipment procured by the Project

7-9 Necessities of Technical Cooperation

For the sake of the technology transfer on sustainable management and activities of the ICT Centre, the Fiji side pointed out the need for dispatch of Japanese experts as well as technical training of counterpart personnel in Japan. They also understood that separate official request on technical cooperation should be submitted through the Embassy of Japan and/or the JICA Fiji Office

7-10 Project plans at the ICT Centre financed by any other donors

The Team requested USP to provide ICT related activities and plans financed by any other donors to enhance collaboration and to avoid duplication. USP has agreed to keep the Team fully informed on ICT related activities and plans by the end of February 2005

Annex-1: Location map of the Project

Annex-2: Organization chart of USP/Project Development/the ICT Centre

Annex-3: Major items requested by the Government of Fiji

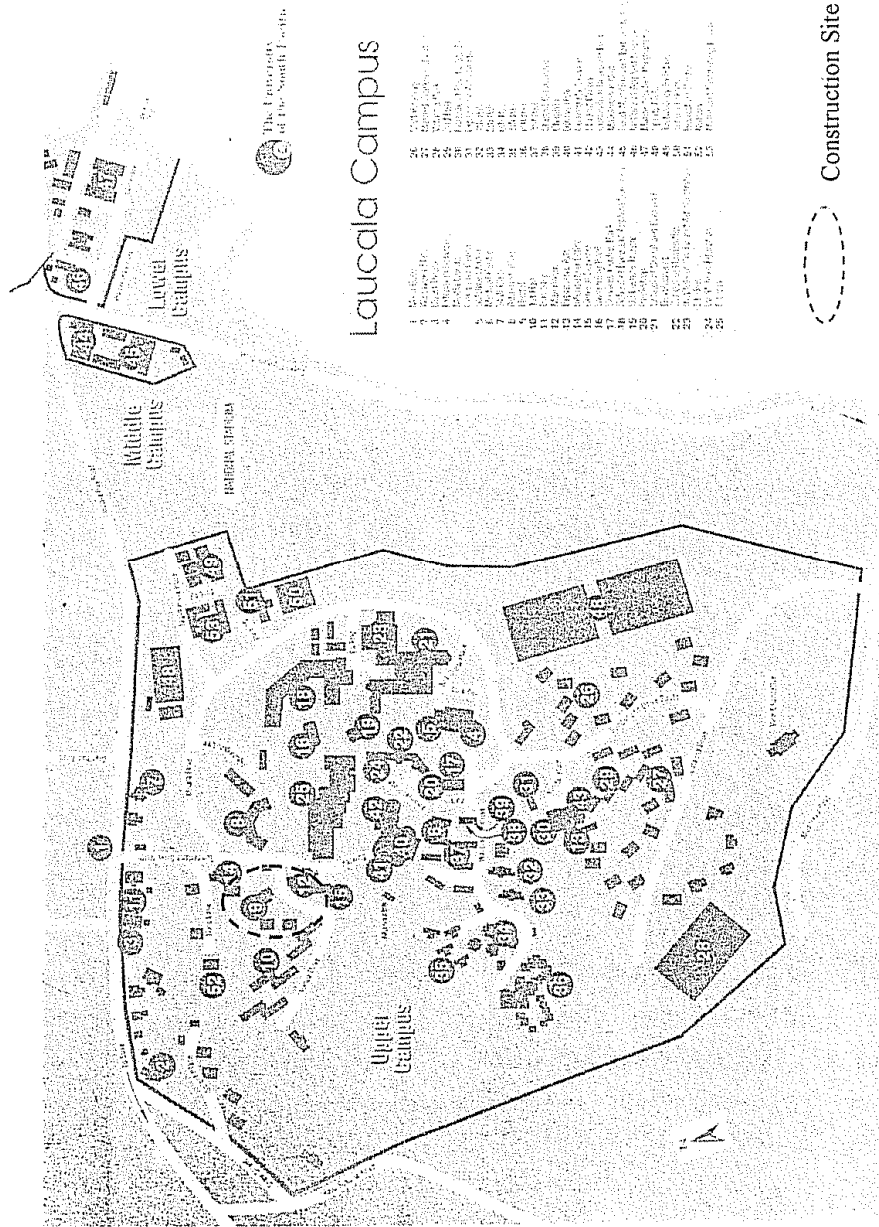
Annex-4: The Japan's Grant Aid Scheme

Annex-5: Necessary undertakings to be taken by each government

Annex-6: Criteria for items selection

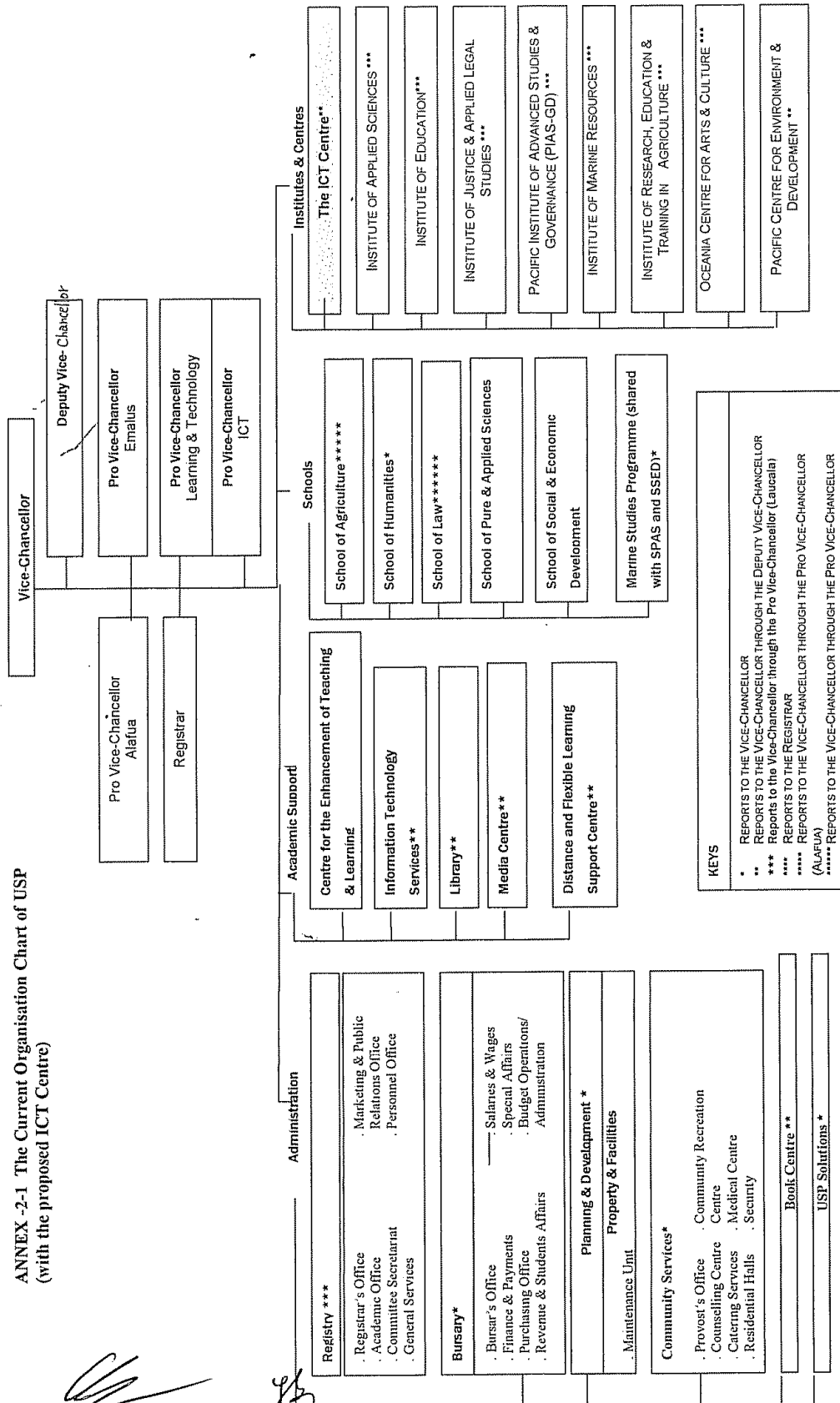


Annex-1: Location map of the Project

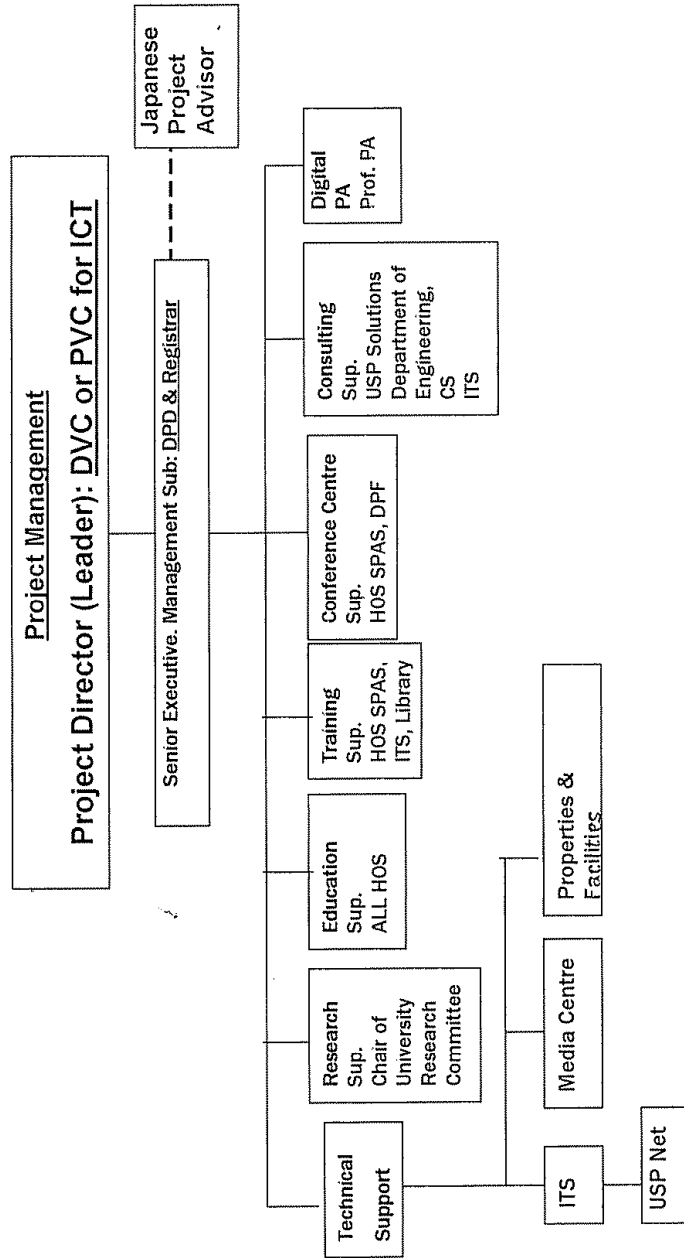


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ANNEX -2-1 The Current Organisation Chart of USP  
(with the proposed ICT Centre)



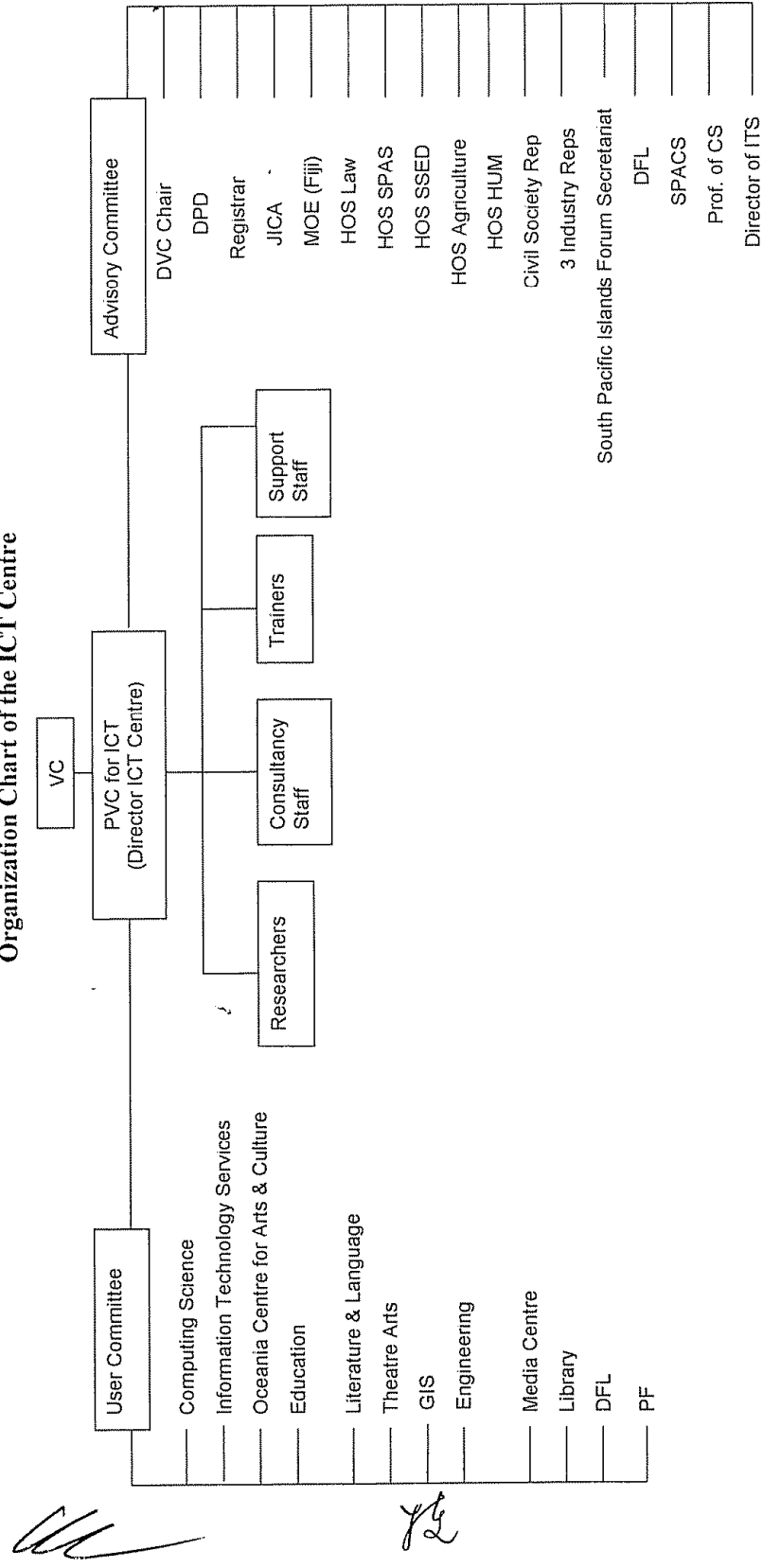
### Organization Chart of Project Development for the ICT Centre



DVC-Deputy Vice Chancellor, PVC-Pro Vice Chancellor, DPD- Director Planning & Development, RC - Research Committee, HOS - Head of School, SPAS - School of Pure and Applied Sciences, PA - Performing Arts, GIS - Geographical Information Systems and DPPF - Director Physical Planning and Facilities

Annex-2-3

Organization Chart of the ICT Centre



VC-Vice Chancellor, DPD- Deputy Vice Chancellor, PVC-Pro Vice Chancellor, DPD- Director Planning & Development, MOE – Ministry of Education, HOS – Head of School, SPAS – School of Pure and Applied Sciences, HUM – Humanities, SPACS – South Pacific Computer Society.



Annex – 3-1: Major items requested by the Government of Fiji for the ICT Centre at USP  
( Buildings and Facilities)

Department	Facility Name	Remarks	
Common Area	Multipurpose Theater	Air Conditioned, 300 – 500 Seating	
	Lecture Halls	For 200 persons x 4, Flat floor	
	Office – Senior Staff		
	Office – General Staff		
	Tutorial Room		
	Video Conference Room		
	Conference Room		
	Office – Director ICT		
	Office – Core Staff ICT		
	Interaction Rooms		
	Staff Common Room		
	ICT Resource Room		
	Digitization Room		
	'Radio Pacifik' Room		
	Common Space	Reception, Corridor, Toilet, etc.	
	Computing SC	Academic Staff Offices	
		Technical Staff Offices	
Administration Staff Offices			
Tutor Offices			
Visiting Staff Offices			
Research Laboratories			
Dedicated Networking Teaching Laboratory		For 40 persons	
General Access Computer Laboratory		For 60 persons x 4, shared with other departments	
Dedicated Computer Teaching Laboratory		For 40 persons x 3	
Tutorial Seminar Rooms		For 30 persons x 10	
Technical Work Room			
IT Service	Offices - Directors ITS		
	Office - Secretary		
	Laboratory	For 26 persons x 4	
	Laboratory	For 50 persons x 8	

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	Laboratory	For 11 persons
	Offices	
	Workshop	
	Server Room	
	Storage Rooms	Network & computer storage
	Meeting Room	
	Helpdesk & Waiting Area	
	Hub Earth Station	
	USP Net Control Room	
GIS	Office, Director	
	Office, Lectures & Officers	
	Postgraduate Room	
	Geospatial Science Computer Learning Space	For 47 persons
	Geospatial Database Server Simulation Lab	For 10 persons
	10 "Seat" Research Laboratory	
	Equipment Room	
	Data Warehouse	
Engineering	Offices, Directors	
	Electrical Laboratory	
	Electronics Laboratory	
	Mechatronics Laboratory	
	Communication Laboratory	
Research and Development	Office – Research / Incubator	Partnership with Industry
	Test Bed Research / Incubator	
	Computer Labs Research	
	Workshop	

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Annex-3-2 Major Items requested by the Government of Fiji for the ICT Centre at Suva (Equipment)

Category	Equipment Name
1 Equipment for Common Area	LCD Projector
	Projection screen
	DVD Player
	PA system
	OHC
	Microfilm Reader / Film Scanner
	Video Conference System
	PCs
	Digital Camcorder
2 Equipment for Computing Science	Servers
	PCs
	Routers
	Switchers
	Patch Panels
	Digital Oscilloscopes
3 Equipment for IT service	Servers
	PCs
	Printers
	UPS
	Switchers
	Backup equipment for data
4 Equipment for GIS	Servers
	PCs
	Field Spectrometer
	GPS Mobile Mapping System
	Scanners
5 Equipment for Department of Engineering	Digital Oscilloscopes
	Signal Generator
	Power Supply
	Servers
	PCB Etching Machine
	Bread Board
6 Equipment for Research and development	Three axis Magnetometer
	Spectrum analyzer
	Vector network analyzer
	VHF transmitter/receiver
	Digital Oscilloscope

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## Annex – 4: The Japan's Grant Aid Scheme

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

### 1. Grant Aid Procedure

1) Japan's Grant Aid Program is executed through the following procedures

Application (Request made by a recipient country)

Study (Basic Design Study conducted by JICA)

Appraisal & Approval (Appraisal by the Government of Japan and Approval by Cabinet)

Determination of Implementation

(The Notes exchanged between the Governments of Japan and the recipient country)

2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA to conduct a study on the request. If necessary, JICA send a Preliminary Study Team to the recipient country to confirm the contents of the request.

Secondly, JICA conducts the study (Basic Design Study), using Japanese consulting firms

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Programme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on

### 2. Basic Design Study

#### 1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project"), is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:



- a) confirmation of the background, objectives and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation,
- b) evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from the technical, social and economic points of view,
- c) confirmation of items agreed on by both parties concerning the basic concept of the Project,
- d) preparation of a basic design of the Project, and
- e) estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even through they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions

## 2) Selection of Consultants

For the smooth implementation of the Study, JICA uses a consulting firm selected through its own procedure (competitive proposal). The selected firm participates the Study and prepares a report based upon the terms of reference set by JICA

At the beginning of implementation after the Exchange of Notes, for the services of the Detailed Design and Construction Supervision of the Project, JICA recommends the same consulting firm which participated in the Study to the recipient country, in order to maintain the technical consistency between the Basic Design and Detailed Design as well as to avoid any undue delay caused by the selection of a new consulting firm

## 3 Japan's Grant Aid Scheme

### 1) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.



2) "The period of the Grant" means the one fiscal year which the Cabinet approves the project for. Within the fiscal year, all procedure such as exchanging of the Notes, concluding contracts with consulting firms and contractors and final payment to them must be completed.

However, in case of delays in delivery; installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

3) Under the Grant, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely consulting, contracting and procurement firms, are limited to "Japanese nationals" (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability of Japanese taxpayers.

5) Undertakings required to the Government of the recipient country

a) to secure a lot of land necessary for the construction of the Project and to clear the site,

b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities outside the site,

c) to ensure prompt unloading and customs clearance at ports of disembarkation in the recipient country and internal transportation therein of the products purchased under the Grant Aid;

d) to exempt Japanese nationals from customs duties, internal taxes and fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts,

e) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contracts such as facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work,



f) to ensure that the facilities constructed and products purchased under the Grant Aid be maintained and used properly and effectively for the Project, and

g) to bear all the expenses, other than those covered by the Grant Aid, necessary for the Project

6) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign the necessary staff for operation and maintenance of them as well as to bear all the expenses other than those covered by the Grant Aid

7) "Re-export"

The products purchased under the Grant Aid shall not be re-exported from the recipient country

8) Banking Arrangement (B/A)

a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the verified contracts

b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay (A/P) issued by the Government of recipient country or its designated authority

9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commission to the Bank.



Annex-5: Necessary undertakings to be taken by each government

NO	Items	To be covered by Grant Aid	To be covered by Recipient side
1	To secure land		•
2	To clear, level and reclaim the site when needed		•
3	To construct gates and fences in and around the site		•
4	To construct the parking lot	•	•
5	To construct roads		
1)	Within the site	•	
2)	Outside the site		•
6	To construct the building	•	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
1)	Electricity		
a	The distributing line to the site		•
b	The drop wiring and internal wiring within the site	•	
c	The main circuit breaker and transformer	•	
2)	Water Supply		
a	The city water distribution main to the site		•
b	The supply system within the site ( receiving and/or elevated tanks )	•	
3)	Drainage		
a	The city drainage main ( for storm, sewer and others ) to the site		•
b	The drainage system ( for toilet sewer, ordinary waste, storm drainage and others ) within the site	•	
4)	Gas Supply		
a	The city gas main to the site		•
b	The gas supply system within the site	•	
5)	Telephone System		
a	The telephone trunk line to the main distribution frame / panel (MDF) of the building		•
b	The MDF and the extension after the frame / panel	•	
6)	Furniture and Equipment		
a	General furniture		•
b	Project equipment	•	
8	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
1)	Advising commission of A/P		•
2)	Payment commission		•
9	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
1)	Marine(Air) transportation of the products from Japan to the recipient country	•	
2)	Tax exemption and customs clearance of the products at the port of disembarkation		•
3)	Internal transportation from the port of disembarkation to the project site	(•)	(•)



#### Annex-6: Criteria for items selection

The requested items for the project should specify the appropriate and minimum scale, specification and amount in order to achieve the project objective. The criteria for items selection is shown below as the principles for selection

##### [Priority Principle]

- (1) Items that contribute to great extent to achieve the project objective
- (2) Items that match the curriculum
- (3) Items which use frequency is not low
- (4) Items that relates to social necessity and market needs
- (5) Items that cannot be replaced as the existing building or equipment
- (6) Items that are not planned to be donated from other aid organization
- (7) Items that are not easily purchased by USP
- (8) Items that don't hold problems to implement (big-scale land development, budget treatment, schedule and procurement)
- (9) Items that don't hold problems on the administration and maintenance (budget, personnel, technology, procurement of consumables )
- (10) Items with long life expectancy

##### [Elimination Principle]

- (1) Items that needs high maintenance cost
- (2) Items that limit the benefit effect
- (3) Items that effect per cost is small
- (4) Items that can be replaced with the easier one
- (5) Items that can only be used for personal use
- (6) Items which number exceeds the minimum needs (inefficient and overlapping items)
- (7) Items that are not installed or stored outside of ICT center
- (8) Consumables

In addition, the items below could be added or deleted by the local conditions:

##### [Priority Principle]

- (1) Items that can be operated with the existing technology level of USP
- (2) Items for which the maintenance personnel (including out-sourcing) are kept or planned to be kept
- (3) Items that match the regional obligation of USP and its strategic directions
- (4) Items where technical cooperation can be expected

##### [Elimination Principle]

- (1) Items that cannot be operated with the existing technology level of USP when ICT centre is operational
- (2) Items for which the maintenance personnel (including out-sourcing) are not kept or planned to be kept
- (3) Items that doesn't match the regional obligation of USP and its strategic directions
- (4) Items that needs the development of large-scale communication infra-structure
- (5) Items that can be dealt with the efficient use of the existing items



## 7. Memorandum of Basic Design Study

### MEMORANDUM

10th March, 2005

Through discussions among Fiji Government, the University of the South Pacific (USP) and the Basic Design Study Team, after exchanging Minutes on 15<sup>th</sup> February, 2005, both parties confirmed the issues concerning the University of the South Pacific Information and Communication Technology Centre as follows:

#### The Schedule of Consultants of the Basic Design Study Team

Mr. Koike will leave for Tokyo on March 12, as scheduled.

Mr. Hoshiai has already left for Tokyo on Mach 7, as scheduled.

Mr. Yamamoto will leave for Tokyo on March 12, as the schedule is extended.

Mr. Doi has already left for Tokyo on March 8, as the schedule is extended.

Mr. Yamaguchi has already left for Tokyo on February 26, as scheduled.

#### Confirmed Issues

1. The official name of the buildings :

University of the South Pacific Information Communication Technology Centre was confirmed to be 'the Japan – Pacific ICT Centre'.

2. The curricula for the estimation of items, numbers and specifications of buildings and equipments :

The curricula were confirmed as shown in the Annex– 5

3. The requested items and their priorities :

The items for buildings were confirmed as per Annex – 3, the items for equipment were confirmed as per Annex – 4.

4. Final request on the theatre :

The large-scale Lecture Theatre hall for 1000 people and the Multipurpose Digital Performing Art Theatre for 500 people were integrated to the Multipurpose Theatre for 300 people. The contents are as described in the article 'F. Final Request on the Multipurpose Theatre' of this Memorandum.

5. The related plan concerning ICT at USP :

When the Basic Design Study Team gave the courtesy visit to Australian High Commission and New Zealand High Commission, it was confirmed there was no particular aid plan for ICT issues for USP for the time being.

6. The undertakings by Fiji Side:

The Fiji Government, the University of the South Pacific and the Basic Design Study Team confirmed the undertakings by both sides when the Minutes was signed. However, the additional undertakings by USP were confirmed as follows:

- a) The movement and setting of the existing equipment, including the equipment of the server room of IT services.
- b) To secure the temporary storage for the equipment procured from foreign countries.

7. The Land Authority to use :

The 99-years leasing contract (1972 – 2071) was confirmed as per Annex – 6.

#### Construction Site

1. The construction site was finalized as of the address: Lot 1 & 2 on Plans S. 1500 Laucala Bay. Since the site is the part of the University area, the survey company employed by the Consultants shall drive pegs at every corner of the Site to clarify the construction area.
2. There are some existing buildings and trees in the construction site. USP shall demolish these existing obstacles when the implementation of the building was finally determined. ( See the Annex – 1: The demolition Area. For the time being, the 12 buildings such as Sub Electrical Room, Mail building, Registration building, Female Dormitory, former Radio Pacific station, Male Dormitory A,C,D,E,F and Female Dormitory B, and Purchasing building are planned to be demolished.)
3. The infrastructures, such as fiber cable, telephone line, water supply line, sewerage line, electricity, etc. in this site should be replaced and reconnected to the Japan - Pacific ICT Centre by USP.
4. For the time being, the topographical survey has started on March 4, and the Geological survey is supposed to start on March 10. Mr. Yamamoto will check the progress of both surveys, and the final data will be sent to the Consultants and will be analyzed in Japan.

## **The Summary of the Project**

### **A. The Objective**

The objective of constructing the Japan – Pacific ICT Centre is to mitigate the 'Digital Divide' among the Island Countries, Fiji and 12 countries and areas participating USP Net, by constructing the new facilities and by integrating and enhancing the ICT functions scattered in the campus.

### **B. Buildings and Their Zoning**

The Consultants proposed the building layout plan to USP, in consideration of the circumstance and the figure of the construction site, and the plan was basically concurred by both parties. However, the final location of the new buildings shall be determined after analyzing the result of the topographical and geological survey. The major buildings and room allocation were confirmed as in the attached table. ( See Annex – 2 for Layout Plan, Annex – 3 for Room Requirement )

### **C. Facilities and Air Conditioning**

The area of rooms and the necessity of air conditioning should be studied in accordance with USP building standard.

### **D. Equipment Plan**

The principle of requested equipment was not changed from the attached table in the signed Minutes, and the details and the priorities of the requested items are confirmed as shown in the Annex – 4.

### **E. Estimation of the Components**

1. The commonly usable rooms in the requests should be integrated, deleted, in consideration of their usage.
2. The estimation of the components will be finalized by the analysis of obtained data and curricula of USP.
3. The back space, such as electricity, generator and machinery rooms will be studied by the Consultants after they return to Japan.

### **F. Final Request on the Multipurpose Theatre**

1. The capacity of the multi-purpose theatre is approximately 300. The usage of the theatre will be multi-purpose, including theatre arts, video recording and general lectures, etc.

2. The curtain should be horizontally moving type ( traveler ), not the suspension type.
3. The height of stage floor should be the same as the former seating area, which can be used as the extended area to the main stage.
4. The final specification will be studied and determined by the Consultants, based on the above-mentioned conditions, after they return to Japan

The Attached:

Annex-1: The Construction Site and Demolition Plan of the Existing Obstacles

Annex-2: The Layout Plan of the Buildings

Annex-3: Requested Building Facilities and their Priorities

Annex-4: Requested Equipments and their Priorities

Annex-5: Curricula for the ICT Centre

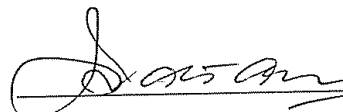
Annex-6: Leasing Contract of the Land



Mr. Hiroyuki Koike, JIA  
Project Manager / Architect  
Azusa Sekkei Co.,Ltd.

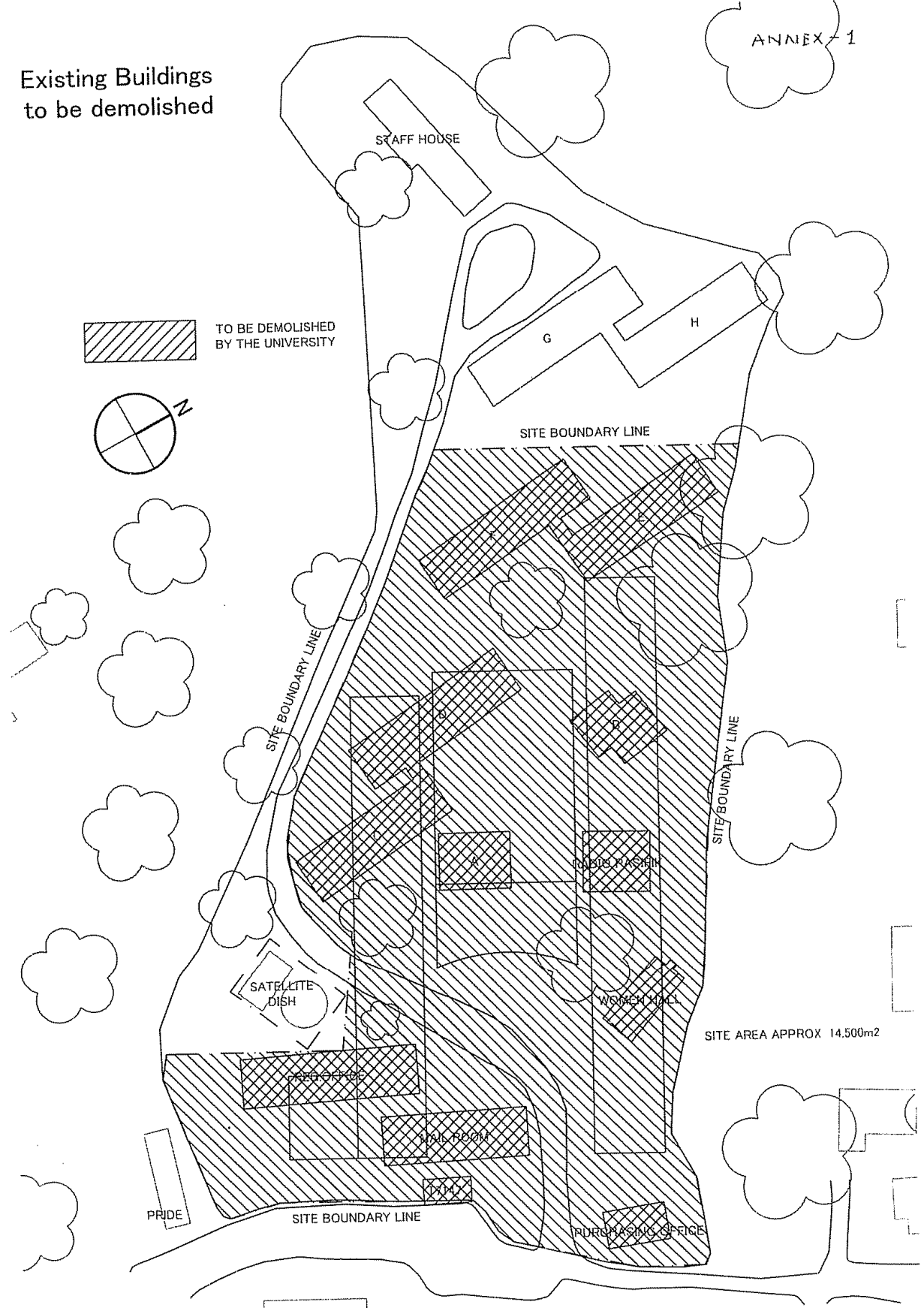


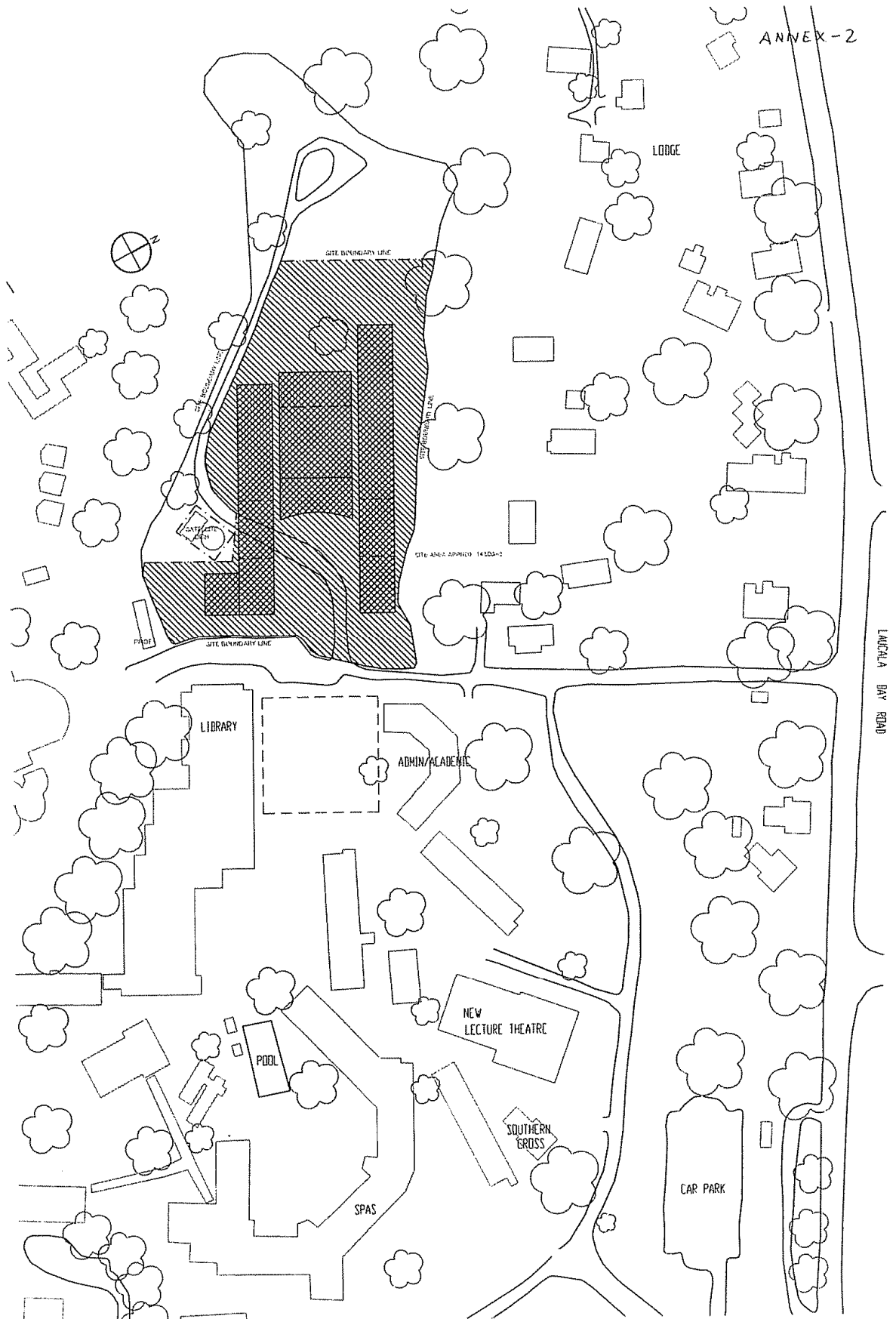
Prof. Anthony Tarr  
Vice Chancellor  
The University of the South Pacific



Mr. Joe Nataou  
Director, TVET  
Ministry of Education  
The Republic of the Fiji Islands

Existing Buildings to be demolished





Department	Priority of Departments	Room Name	Priority of Rooms	Note
I Common Area	1	1 Multipurpose Theatre	A	
		2 Lecture Hall 4 rooms	C	Utilize existing facilities
		3 Office -Director ICT	A	
		4 Office - Core Staff ICT	A	
		5 Office - Senior Staff	C	
		6 Reception/Secretary	A	
		7 Visiting Staff Office	A	
		8 Tutorial Room	C	Utilize existing facilities
		9 Video Conference Room	A	
		10 Green room	A	
		11 Conference Room	A	
		12 Interaction Room	C	
		13 Staff Common Room with kitchen	A	
		14 ICT Resource Room (CS Library)	B	
		15 Digitization Room	B	
		16 Radio Pasifik' Room	A	
II Computing Science	2	1 Academic Staff Office	A	
		2 Technical Staff Office	A	
		3 Administration Staff Office	A	
		4 Tutor Office	A	
		5 Research Laboratories	A	
		6 Dedicated Networking Teaching Lab	A	
		7 General Access Computer Lab 5 rooms	B	Utilize ITS Laboratory
		8 Dedicated Computer Teaching Lab 4 rooms	A	
		9 Postgraduate Laboratory	A	
		10 Tutorial Seminar Room 10 rooms	C	Utilize existing facilities
		11 Technical Laboratory (Workshop)	A	
III IT Services	3	1 Office - Director ITS	A	
		2 Office - Secretary	A	
		4 General Office	A	
		5 Meeting room	A	
		6 Laboratory A (Professional) 4 rooms	A	
		7 Laboratory B (General Access) 8 rooms	A	
		8 Laboratory C (R&D)	B	
		9 Workshop	A	
		10 Server Room	A	Computer floor
		11 Storage Room	A	
		12 Helpdesk & Waiting Area	A	
		13 Hub Earth Station Staff Room	C	
		14 USP Net Control Room	A	
		IV Research, Development and Incubation	4	1 Office - Research / Incubator
2 Computer Labs Research	C			
3 Test Bed-1	A			
4 Test Bed-2	A			
V Engineering	5	1 Office	A	
		2 Technical staff	A	
		3 Postgraduate Room	B	
		4 Computer lab	A	
		5 Engineering lab 1	A	
		6 Engineering lab 2	B	
		7 Engineering lab 3	A	
		8 Storage 1/Research	A	
		9 Storage 2/Research	B	
VI GIS	6	1 Office - Director	A	
		2 Office - Lecturer & Officers	A	
		3 Postgraduate Room	A	
		4 Geospatial Science Computer Learning Space	A	
		5 25seat general access Laboratory	C	Utilize ITS Laboratory
		6 Geospatial Database Server Simulation Lab	B	
		7 10 'Seat' Research Laboratory	A	
		8 Equipment Room	A	
		9 Data Warehouse	A	



### Required Equipment List

Code No	Description	Priority	Req. Qty
COM	1 LCD Projector (L)	A	5
COM	2 LCD Projector (S)	A	7
COM	3 Projection Screen (L)	A	5
COM	4 Projection Screen (S)	A	7
COM	5 PC (Standard Level)	A	38
COM	6 PC (High Level)	B	4
COM	7 Printer (Ink-jet)	A	11
COM	8 Printer (All-in-one type)	A	4
COM	9 Printer (Laser type/Monocolor)	A	2
COM	10 Printer (Laser type/Color)	A	1
COM	11 OHC	A	12
COM	12 Lectern	A	6
COM	13 DVD Player	A	5
COM	14 VCR	A	10
COM	15 White Board	A	16
COM	16 TV (29")	A	8
COM	17 Web Cam and Microphone (S)	B	5
COM	18 Web Cam and Microphone (M)	B	5
COM	19 Polycom Codex w/IMUX	A	3
COM	20 Remote Camera (w/Control System)	A	6
COM	21 Wireless Lapel Mic	A	4
COM	22 Microphone	A	1
COM	23 Audio Mixer (8-10ch)	A	8
COM	24 Audio Mixer (Professional)	A	2
COM	25 Power Amplifier	A	16
COM	26 Audio Speaker	A	16
COM	27 Video/CRT Monitor (9")	B	3
COM	28 Video/CRT Monitor (14")	A	10
COM	29 Video Mixer	A	1
COM	30 Mic/Line Mixer	A	1
COM	31 Audio-Video Distribution Amplifier	A	7
COM	32 Scan Converter	A	12
COM	33 VGA Splitter	A	12
COM	34 Fibre Transmitter and Receiver Set	A	5
COM	35 Fibre Driver	A	10
COM	36 Multi-system Converter	A	2
COM	37 Polycom Quad Module	B	12
COM	38 Conference PA System	A	2
COM	39 Conference Table (Special)	A	1
COM	40 Conference Table (General Type)	B	1
COM	41 Table for Resource Center	B	1
COM	42 Chair	B	190
COM	43 Equipment Console	A	1
COM	44 Lighting Position (Overhead Grid)	A	1
COM	45 Lighting Position (Front of House Pipe)	A	1
COM	46 Control System	A	1
COM	47 Circuit Box	A	1
COM	48 Portable Dimmer Hook-up	A	1
COM	49 Sound Multi-cable Box for Mic and Line Input	A	1
COM	50 Lighting Board	A	1
COM	51 Digital Dimmer	A	48

Code No	Description	Priority	Req Q'ty
COM	52 Cyclorama	A	1
COM	53 Black Backdrop	A	1
COM	54 Black Side Legs	A	3
COM	55 Black Border	A	3
COM	56 Gold Traveller for Front Curtain	A	1
COM	57 Stage Lighting Instrument	A	53
COM	58 Fresnel w/Barndoors	A	24
COM	59 Variable Forous Eleipsoidal Spot	A	24
COM	60 Three-compartment Laniro Type Cyclorama Light	A	5
COM	61 Front Projection Screen	A	1
COM	62 Film Projection Screen	A	1
COM	63 Wireless Microphone	A	1
COM	64 Conventional Microphone	A	1
COM	65 Studio Video Camera	A	3
COM	66 Tripod for Studio Camera	A	3
COM	67 Wall-mounted Camera	A	1
COM	68 Intercom Systema	A	1
COM	69 Time-base Corrector	A	1
COM	70 Syncro Generator	A	1
COM	71 Vectorscope	A	1
COM	72 Patch Panel Bay	A	1
COM	73 Headphone	B	2
COM	74 Broadcast Microphone	A	2
COM	75 Dual Cassette Playback Unit	A	1
COM	76 Studio Monitor	A	2
COM	77 Turntable	A	1
COM	78 AM/FM Audio Receiver	A	1
COM	79 CD-DVD Player	A	6
COM	80 Macintosh PC	A	2
COM	81 Console for Audio Mixser	A	1
COM	82 Automated Radio System Software	B	1
COM	83 Remote-broadcast Set-up	A	1
COM	84 Server	A	1
COM	85 Fax Machine	B	1
COM	86 Microwave Oven	C	1
COM	87 Refrigerator	C	1
COM	88 Tea Kettle	C	2
COM	89 Water Cooler/Water Purifier	C	1
COM	90 Microfilm Reader/Scanner	A	4
COM	91 Scanner (Flat Bed Type)	A	3
COM	92 Scanner (Book Scanner Type)	A	1
COM	93 Photocopier	A	2
COM	94 Bock Binding Machine	A	1
COM	95 Ring Binding Machine	A	1
COM	96 Shelves	A	1
COM	97 Various Connector/Cable/Accessories	A	1
CSC	1 Floor-standing Rack for Router/Switching etc.	A	3
CSC	2 Multivendor Platform Router	B	10
CSC	3 Ethernet Switch (48 port)	A	6
CSC	4 Ethernet Switch (24 port)	A	6
CSC	5 Patch Panel (48 port)	A	6
CSC	6 Patch Panel (24 port)	A	6
CSC	7 Wireless Access Point	A	4

Code No	Description	Priority	Req Q'ty
CSC	8 Wireless LAN Card	B	20
CSC	9 Bluetooth	A	10
CSC	10 Ethernet Card	A	40
CSC	11 Handheld Device for Mobile Networking	A	10
CSC	12 Laptop for Mobile Networking	A	6
CSC	13 Cables & others	B	4
CSC	14 Server	C	2
CSC	15 PC for experimental work	A	40
CSC	16 Embedded System Board	A	40
CSC	17 Oscilloscope	A	3
CSC	18 Desktop PC for Teaching Computer Laboratory	A	200
CSC	19 Desktop PC for Staff	B	54
CSC	20 Desktop PC for Research	A	50
CSC	21 PC for Postgraduate Laboratry	A	40
CSC	22 Highend Server	B	3
CSC	23 Laser Printer for Staff	B	7
CSC	24 Laser Printer for Student	A	5
CSC	25 Back up Facilities	A	1
CSC	26 Desk	B	104
CSC	27 Chair	B	104
CSC	28 File Cabinet	B	27
CSC	29 White Board	B	1
ITS	1 Server	A	2
ITS	2 Web Server	A	4
ITS	3 Server	A	24
ITS	4 Tape Backup Archive	A	1
ITS	5 General Purpose Server	A	4
ITS	6 Network Switch	A	2
ITS	7 UPS (L)	A	30
ITS	8 Wev Proxy	B	2
ITS	9 Terminal Server	C	2
ITS	10 Desktop Computer	B	65
ITS	12 Fiber Channel San	C	1
ITS	13 Rack Modem/Access Server	C	1
ITS	14 Monitoring Station	C	6
ITS	15 Desktop Computer for Professional Training Lab.	A	52
ITS	16 Desktop Computer for Development Training Lab.	A	52
ITS	17 Desktop Computer for Research & Development Lab.	B	11
ITS	18 Desktop Computer for General Access Lab.	A	400
ITS	19 Desktop Computer for Disabled Student Lab.	A	5
ITS	20 Printer	A	14
ITS	21 Switch	A	35
ITS	22 Data Projector	A	13
ITS	23 Surveillance Camera	C	30
ITS	24 Surveillance Management System	B	1
ITS	25 Server (w/UPS)	A	5
ITS	26 White Board	B	30
ITS	27 Fibere Optic Cable	A	1
ITS	28 Video Codecs	A	7
ITS	29 Polycom Inberse Multiplexer for View Station	A	7
ITS	30 Equipment Rack	A	3
ITS	31 Console for Video-broadcast Switching	A	4
ITS	32 PC for Schduler	A	1

Code No	Description	Priority	Req Q'ty
ITS	33 Work Bench	B	1
ITS	34 Video Monitor	A	24
ITS	35 VHS-CD-DVD Combo Redcorder	A	6
ITS	36 Video Mixer	A	4
ITS	37 Mic/Line Mixer	A	1
ITS	38 Fiber Driver	A	6
ITS	39 HDSL Data Termination Unit	A	1
ITS	40 V.35 Data Termination Unit	A	1
ITS	41 Audio-Video Distribution Amplifier (Video)	A	4
ITS	42 Audio-Video Distribution Amplifier (Audio)	A	2
ITS	43 PC for Staff	A	3
ITS	44 Printer for Staff	A	2
ITS	45 Video Broadcast Facility	A	3
ITS	46 Tablet PC	A	4
ITS	47 OHC	A	2
ITS	48 LCD Projector W/Screen	A	4
ITS	49 Desk	B	95
ITS	50 Chair	B	95
ITS	51 File Cabinet	B	27
ITS	52 White Board	B	1
RDI	1 Fax	A	1
RDI	2 PC	A	9
RDI	3 Network Analyzer	A	2
RDI	4 Spectrum Analyzer	A	1
RDI	5 Signal Generator	A	1
RDI	6 Transmitter Receiver	A	1
RDI	7 Digital CRO	A	1
RDI	8 Router	A	2
RDI	9 Photocopy	A	2
RDI	10 PLC Modem	A	1
RDI	11 TPE Transformer Point Equipment	A	1
RDI	12 CPE	A	1
RDI	13 Internet Modem	A	1
RDI	14 Wireless Security Equipment	A	1
RDI	15 SCADA Equipment and Control	A	1
RDI	16 Radio Trunking-Receiver	A	1
RDI	17 Satellite Receiver	A	1
RDI	18 Receiving Dish	A	1
RDI	19 Printer	A	1
RDI	20 Plotter	A	1
RDI	21 Digital Camera	A	1
RDI	22 Mageillan Pro Mobile Robot	B	1
RDI	23 Manufacturing Network	C	1
RDI	24 Servo Robot	C	1
RDI	25 Automate Storage Vision Inspection System	C	1
RDI	26 CNC Machining Center	C	1
RDI	27 CNC Lathe	C	1
RDI	28 Master Cam	C	1
RDI	29 Server	A	2
RDI	30 Three axis Magnetometer	C	1
RDI	31 Rio Meter	C	1
RDI	32 Desk	B	6
RDI	33 Chair	B	6

Code No	Description	Priority	Req. Q'ty
RDI	34 File Cabinet	B	6
RDI	35 White Board	B	2
ENG	1 Oscilloscope	A	8
ENG	2 Spectrum Analyzer	A	1
ENG	3 Power Sensor	A	1
ENG	4 Vector Signal Generator	A	1
ENG	5 Analog Communications	A	8
ENG	6 Analog Communications Training System	A	8
ENG	7 Fiber Optic Communications	A	3
ENG	8 Antenna Training and Measuring System	A	3
ENG	9 Microwave Technology Training System	A	3
ENG	10 Radar Training System	A	3
ENG	11 Digital Communications 1	A	8
ENG	12 Digital Communications 2	A	8
ENG	13 Digital Communications Training System	A	8
ENG	14 Fiber Optics & Lasers	A	3
ENG	15 GPS -1010 Global Positioning System Trainer	A	3
ENG	16 PCB Etching Machine	A	2
ENG	17 Oscilloscope	A	30
ENG	18 Power Supply	A	30
ENG	19 Signal Generator	A	30
ENG	20 Multimeter	A	30
ENG	21 Soldering Station	A	30
ENG	22 Tool kits	B	30
ENG	23 Digital Scope Meter	B	30
ENG	24 Power Electronics Training Module	A	1
ENG	25 Digital Signal Processing Kit	B	10
ENG	26 Wind Turbine	A	1
ENG	27 Solar Panel	A	5
ENG	28 Power Inverter	A	5
ENG	29 Bread Board	B	30
ENG	30 PIC Microcontroller Development Kit	A	30
ENG	31 Momentum PLC	A	30
ENG	32 Motor Winding Kit	B	5
ENG	33 PC	A	60
ENG	34 Server/Workstation	A	3
ENG	35 Battery Pack	B	5
ENG	36 Automation Unit	A	1
ENG	37 Turning Center	A	2
ENG	38 Milling Center	A	2
ENG	39 PS3 Robot/RC520 PC Controller	A	2
ENG	40 Desktop Robot	A	4
ENG	41 All-Terrain Robot	A	4
ENG	42 Hemisson Education Robot	A	10
ENG	43 KoreBot Robotid Development Board	A	4
ENG	44 Yamabico	A	2
ENG	45 Lab. Table W/Chair	B	30
ENG	46 LCD Projector W/Screen	A	4
ENG	47 Counter Table	B	3
ENG	48 Desk	B	1
ENG	49 Chair	B	1
ENG	50 File Cabinet	B	1
ENG	51 Equipment Rack	B	15

Code No	Description	Priority	Req Q'ty
GIS	1 Desk	A	11
GIS	2 Chair for Teacher	A	49
GIS	3 Chair for Student	A	30
GIS	4 Computer Desk/Chair	A	15
GIS	5 Bookshelf	A	5
GIS	6 Filing Cabinet	A	14
GIS	7 Low Map Table w/Chair	A	1
GIS	8 Teaching Desk w/Chair	A	1
GIS	9 Dual Screen PC w/Auto-stereo Display & Flat CRT Monitor	A	26
GIS	10 Audiovisual Console	A	1
GIS	11 Computer Projector	A	2
GIS	12 Projector screen	A	2
GIS	13 White Board (S)	A	45
GIS	14 White Board (L)	A	2
GIS	15 Digitizing Tablet	A	46
GIS	16 Pin up Board	B	14
GIS	17 Long Bench	B	4
GIS	18 Server	B	5
GIS	19 Network System	A	2
GIS	20 Dual Screen Photogrammetric Workstation	A	1
GIS	21 Single Screen Workstation	A	25
GIS	22 Map Cabinet	A	4
GIS	23 Aerial Photograph Cabinet	A	4
GIS	24 Map Table w/Light Table	A	1
GIS	25 Shelves for Equipment	A	2
GIS	26 Digital Aerial Imaging Camera (w/Integrated High Precision GPS)	A	2
GIS	27 Field Spectrometer	A	2
GIS	28 GPS Mobile Mapping System	A	20
GIS	29 Sidescan Sonar	B	1
GIS	30 High Resolution Scanner for Scanning Aerial Photograph and Interpretation Overlays	A	1
GIS	31 Plotter (A0)	B	1
GIS	32 Laminator (A0)	B	1
GIS	33 Colour Laser Printer (A3)	B	1
GIS	34 Colour Map and Plan Scanner (A0)	A	1
GIS	35 Total Station	A	8
GIS	36 Surveying Automatic Level	B	10
GIS	37 Survey Grade GPS Base Station	C	1

## Curriculum (Computer Science : C/S Majors 2006 - )

		1st Semester				2nd Semester						
		Lec.	Tut.	Lab.	Total	Lec.	Tut.	Lab.	Total			
Sem I	Introduction to Computing Science	3	1	F (G)	20							
	Calculus I	3	1	-								
	Probability & Statistics	3	1	-								
	English	3	1	-								
	Minor Course	3	1	-								
Sem II	Data Structures and Algorithms				-				20			
	Calculus II									3	1	F (G)
	Discrete Mathematics									3	1	-
	Introduction to Pacific Studies									3	1	-
	Minor Course									3	1	-
Sem III	Data Communications	3	1	F (N)	16							
	Database Management System (for Computer Science)	3	1	F (S)								
	Software Engineering I	3	1	F (G)								
	Minor Course	3	1	-								
Sem IV	Computer Organization								16			
	Design and Analysis of Algorithms									3	1	F (G)
	Software Engineering II									3	1	F (G)
	Minor Course									3	1	-
Sem V	Operating Systems	3	1	F (S)	12							
	Two from following Electives	6	2	F (G/S)								
	Elective											
	Artificial Intelligence	3	1	F (G)								
	Multimedia System	3	1	F (S)								
	Digital Image Processing	3	1	F (S)								
	Topics in Computer Science	3	1	F (G)								
Good Governance	3	1	-									
Sem VI	Computer Networks				-				12			
	Two from following Electives									6	2	F (S/G/N)
	Elective											
	Internet Computing	3	1	F (S)								
	Principles of Programming Languages	3	1	F (G)								
	Theory & Practice of Compilers	3	1	F (G)								
	Human Computer Interaction	3	1	F (G)								
	Security	3	1	F (N)								
	Computer Project	3	1	F (G)								
	Topics in Computer Science	3	1	F (S)								
Total		51	17	-	48	57	19	-	48			

**Curriculum (Computer Science : Information System Majors 2006 - )**

		1st Semester				2nd Semester			
		Lec.	Tut.	Lab.	Total	Lec.	Tut.	Lab.	Total
Sem I	Information Systems I	3	1	F (G)	12				-
	English	3	1	-					
	Minor Course	3	1	-					
Sem II	Information System II					3	1	F (G)	12
	Introduction to Pacific Studies					3	1	-	
	Minor Course					3	1	-	
Sem III	Distributede Information System Theory and Application	3	1	F (S)	12				-
	Database Management System (for Information System)	3	1	F (S)					
	Minor Course	3	1	-					
Sem IV	Advanced Database Systems					3	1	F (S)	8
	Minor Course					3	1	-	
Sem V	Information Systems Analysis & Design	3	1	F (G)	12				-
	Data Mining	3	1	F (S)					
	Good Governamance	3	1	-					
Sem VI	Advanced Distributed System & Information Systems Networking					3	1	F (S)	8
	Topics in Computer Science					3	1	F (S)	
Total		27	9	-	24	21	7		28



### Curriculum (Electrical/Electronics 2006 - )

		1st Sem.				2nd Sem					
		Lec.	Tut.	Lab.	Total	Lec.	Tut.	Lab.	Total		
Sem I	Engineering Mechanics	1	3	3 (O)	24				-		
	Engineering Graphics	1	3	3 (P)							
	English for Academic Purpose	1	4	-							
	Mathematics I	1	4	-							
Sem II	Electrical Engineering Science				-			1	3	3 (NL)	26
	Material Science							1	3	3 (O)	
	Computing for Science & Engineering							1	3	3 (P)	
	Mathematics II							1	4	-	
Sem III	Mathematics III	1	4	-	24				-		
	Pacific Studies	1	4	-							
	Circuits & Systems	1	3	3 (NR)							
	Fundamentals of Communication Engineering	1	3	3 (NC)							
Sem IV	Mathematics IV				-			1	4	-	26
	Computer Organization							1	3	3 (P)	
	Measurement & Instrumentation							1	3	3 (NR)	
	Digital Electronics							1	3	3 (NR)	
Sem V	Microprocessor Applications	1	3	3 (NR)	28				-		
	Control Engineering	1	3	3 (NL)							
	Analog Electronics	1	3	3 (NR)							
	Power & Machines	1	3	3 (NL)							
Sem VI	Design/Build/Test/Project				-			1	3	3 (N/O)	26
	Power Electronics							1	3	3 (O)	
	Communication Networks							1	3	3 (NC)	
	Ethics & Governance							1	4	-	
Sem VII	Engineering Project I	-	-	3 (NR)	24				-		
	Digital Signal Processing	1	3	3 (P/N)							
	Electrical Engineering Systems	1	3	3 (NL)							
	Elective (any 1 from I/II)	1	3	3 (NR)							
Sem VIII	Engineering Project II				-			-	-	3 (N/O)	22
	Renewable Energy							1	3	3 (O)	
	Engineering Business Studies							1	4	-	
	Elective (any 1 from I/II)							1	3	3 (N)	
Total		15	49	36 (30)	100	15	49	36 (21)	100		
Electives I	Automated Systems	1	3	3 (NL)		1	3	3 (N)			
	Robotics	1	3	3 (NM)		1	3	3 (N)			
	Electrical Power Systems	1	3	3 (NL)		1	3	3 (N)			
Elective II	Analog Electronic System Design	1	3	3 (NR)		1	3	3 (N)			
	Digital Electronic System Design	1	3	3 (NR)		1	3	3 (N)			
	Electronic Manufacturing	1	3	3 (NR)		1	3	3 (N)			

- (O) : Existing Laboratory  
(P) : PC Laboratory  
(NR) : New (Electronic) Laboratory  
(NL) : New (Electric) Laboratory  
(NC) : New (Communication) Laboratory  
(NM) : New (Mechatronics) Laboratory

### Curriculum (Communications 2006 - )

		1st Sem.				2nd Sem.						
		Lec.	Tut.	Lab.	Total	Lec.	Tut.	Lab.	Total			
Sem I	Engineering Mechanics	1	3	3 (O)	24							
	Engineering Graphics	1	3	3 (P)								
	English for Academic Purpose	1	4	-								
	Mathematics I	1	4	-								
Sem II	Electrical Engineering Science								26			
	Material Science									1	3	3 (O)
	Computing for Science & Engineering									1	3	3 (P)
	Mathematics II									1	4	-
Sem III	Mathematics III	1	4	-	24							
	Pacific Studies	1	4	-								
	Circuits & Systems	1	3	3 (NR)								
	Fundamentals of Communication Engineering	1	3	3 (NC)								
Sem IV	Mathematics IV								26			
	Computer Organization									1	4	-
	Data Communication									1	3	3 (P)
	Signals and Systems									1	3	3 (P/NR)
Sem V	Microprocessor Applications	1	3	3 (NR)	28							
	Internet Computing	1	3	3 (P)								
	Analog Electronics	1	3	3 (NR)								
	Network Security	1	3	3 (P)								
Sem VI	RF & Photonics								26			
	Multimedia Communication									1	3	3 (P)
	Teletraffic									1	3	3 (P)
	Ethics & Governance									1	4	-
Sem VII	Engineering Project I	-	-	3 (P/NC)	24							
	Digital Signal Processing	1	3	3 (P/NR)								
	Satellite Communications	1	3	3 (P/NC)								
	Elective (any 1 from I/II)	1	3	3 (P/N)								
Sem VIII	Engineering Project II								22			
	Wireless Communication									-	-	3 (P/NC)
	Engineering Business Studies									1	3	3 (P/NC)
	Elective (any 1 from I/II)									1	4	-
Total		15	49	36 (24)	100	15	49	36 (18)	100			
Electives I	Microwave Circuit Design	1	3	3 (P/NC)		1	3	3 (P/NC)				
	Advanced DSP	1	3	3 (P/NR)		1	3	3 (P/NR)				
	Control Theory	1	3	3 (P/NL)		1	3	3 (P/NL)				
Elective II	Embedded Systems	1	3	3 (P/NR)		1	3	3 (P/NR)				
	Communication Networks	1	3	3 (P/NC)		1	3	3 (P/NC)				
	Microprocessor Based Systems	1	3	3 (P/NR)		1	3	3 (P/NR)				

- (O) : Existing Laboratory  
(P) : PC Laboratory  
(NR) : New (Electronic) Laboratory  
(NL) : New (Electric) Laboratory  
(NC) : New (Communication) Laboratory  
(NM) : New (Mechatronics) Laboratory

### Curriculum (Mechatronics 2006 - )

		1st Sem.				2nd Sem.			
		Lec.	Tut.	Lab.	Total	Lec.	Tut.	Lab.	Total
Sem. I	Engineering Mechanics	1	3	3 (O)	24				
	Engineering Graphics	1	3	3 (P)					
	English for Academic Purpose	1	4	-					
	Mathematics I	1	4	-					
Sem. II	Electrical Engineering Science				-	1	3	3 (NL)	26
	Material Science					1	3	3 (O)	
	Computing for Science & Engineering					1	3	3 (P)	
	Mathematics II					1	4	-	
Sem. III	Mathematics III	1	4	-	24				
	Pacific Studies	1	4	-					
	Circuits & Systems	1	3	3 (NR)					
	Solid Mechanics	1	3	3 (O)					
Sem. IV	Mathematics IV				-	1	4	-	26
	Thermofluids					1	3	3 (O)	
	Measurement & Instrumentation					1	3	3 (NR)	
	Digital Electronics					1	3	3 (NR)	
Sem. V	Microprocessor Applications	1	3	3 (NR)	28				
	Control Engineering	1	3	3 (NM)					
	Analog Electronics	1	3	3 (NR)					
	Applied Thermofluids	1	3	3 (O)					
Sem. VI	Mechatronics Design & Devices				-	1	3	3 (NM)	26
	Dynamics					1	3	3 (O)	
	Communication Networks					1	3	3 (NC)	
	Ethics & Governance					1	4	-	
Sem. VII	Engineering Project I	-	-	3 (NM)	24				
	Digital Signal Processing	1	3	3 (NR)					
	Advanced Dynamics & Control	1	3	3 (NM)					
	Elective (any 1 from I/II)	1	3	3 (NM)					
Sem. VIII	Engineering Project II				-	-	-	3 (NM)	22
	Robotics & Automation					1	3	3 (NM)	
	Engineering Business Studies					1	4	-	
	Elective (any 1 from I/II)					1	3	3 (NM)	
Total		15	49	36 (21)	100	15	49	36 (21)	100
Electives I	Systems Modeling	1	3	3 (NM)		1	3	3 (NM)	
	Robot & Computational Mechanics	1	3	3 (NM)		1	3	3 (NM)	
Elective II	Process Control Systems	1	3	3 (NM)		1	3	3 (NM)	
	Industrial Automation	1	3	3 (NM)		1	3	3 (NM)	

- (O) : Existing Laboratory  
(P) : PC Laboratory  
(NR) : New (Electronic) Laboratory  
(NL) : New (Electric) Laboratory  
(NC) : New (Communication) Laboratory  
(NM) : New (Mechatronics) Laboratory


**Curriculum (Bachelor of Geospatial Science 2006 - )**

		1st Sem.				2nd Sem.							
		Lec.	Tut.	Lab.	Total	Lec.	Tut.	Lab.	Total				
Sem. I	Introduction to Geospatial Science	2	-	2 (S)	18								
	Information Systems	4	1	1 (G)									
	English for Academic Purposes	2	2	-									
	Chosen specialty Area	2	-	2 (G)									
Sem. II	Geomatics I					2	-	4 (S)	23				
	Information Systems II					4	1	1 (G)					
	Survey Computations I					2	-	4 (S)					
	One option from following					4	1	-					
	Options									4	1	-	
	Calculus and Linear Algebra									4	1	-	
Sem. III	GIS - Desktop GIS	2	-	2 (S)	18								
	Database Systems	4	1	1 (G)									
	Geomatics II	2	-	2 (G)									
	One option from following	2	-	2 (G)									
	Survey Computations II	2	1	1 (G)									
	Chosen specialty Area	2	-	2 (G)									
Sem. IV	GIS - Earth Imaging Technology and Application					2	-	2 (S)	17				
	Adv. Database Systems and Web Database Tech.					3	1	1 (G)					
	Pacific Studies					2	2	-					
	Chosen specialty Area					2	-	2 (G)					
Sem. V	GIS - Advanced Spatial Information Systems	-	-	4 (S)	17								
	Information Systems Analysis and Design	3	1	1 (G)									
	Digital Image Processing	-	-	4 (S)									
	Chosen specialty Area	2	-	2 (G)									
Sem. VI	GIS - Spatial Analysis					-	-	4 (S)	16				
	Good Governance					2	2	-					
	Two options from following					2	-	6 (S/G)					
	Options									-	-	4 (S)	
	GIS - Ground Investigations									-	-	4 (S)	
	GIS - Project or Special Topic									-	-	4 (S)	
Sem. VII	Honours Research Project	-	-	4 (G)	16								
	Honours Research Project	-	-	4 (G)									
	Digital Image Processing	-	-	4 (S)									
	Chosen specialty Area	2	-	2 (G)									
Sem. VIII	Honours Research Project					-	-	4 (G)	16				
	Honours Research Project					-	-	4 (G)					
	Visualisation and Multimedia Cartography					2	-	2 (S)					
	GIS - Ground Investigations					-	-	4 (S)					
Total		27	5	37	69	27	7	38	72				

**Curriculum (Graduate Diploma in GIS 2006 - )**

Sem. I	GIS - Advanced Spatial Information Systems	-	-	4 (S)	8				
	Digital Image Processing	-	-	4 (S)					
Sem. II	GIS - Ground Investigations					-	-	4 (S)	16
	GIS - Applied Research Project					-	-	4 (S)	
	Photogrammetry					2	-	2 (S)	
	GIS - Visualisation and Multimedia Cartography					2	-	2 (S)	
Total		0	0	8	8	4	0	12	16

66214 LD.4/16/4997  
 CARD NO. 1/397  
 Crown Lease No. ~~624~~ 6105

STAMP DUTY  
  
 Stamp Duty paid vide 546 353 of 18.11.80  
 Director of Lands

THE DIRECTOR OF LANDS  
 (hereinafter referred to as "Lessor")  
 of Fiji on behalf of the Crown  
 hereby leases to THE UNIVERSITY OF THE  
 SOUTH PACIFIC, a body corporate duly constituted  
 by Royal Charter and Warrant (hereinafter  
 referred to as "Lessee")

FEES  
 Registration Fee \$ 2.00  
 Drawing Fee 25.00  
 Plan Fee 13.00  
 Survey Fee 829.65  
 Total \$869.65  
 Revenue Receipt No. 409975  
 Date 18.8.80  
 Initials (U)

All that piece of Land being

Name of Land	Tikapa	Province	Area		
			A.	R.	P.
Lots 1 & 2 on Plan S.1500 Laucala Bay	Suva	Rewa	172	0	20

the boundaries of which are more particularly delineated on the plan hereon and coloured yellow to be held by the said THE UNIVERSITY OF THE SOUTH PACIFIC

as tenant for the term of ninety-nine (99) years commencing on the fifth day of May, 1972 at the yearly rental of two dollars (\$2.00) payable to The Director of Lands, Suva

as follows: that is to say,—By two equal half-yearly payments in advance in the months of January and July in every year. Subject to the covenants and powers implied in leases under "Land Transfer Act, 1971" and subject also to the following covenants and provisos; that is to say,—

It is expressly declared that this lease is a Protected Lease under the provisions of the Crown Lands Ordinance Act

And the Lessor hereby reserves all Precious Metals, Coals and Minerals of every description including Crude Oil upon or under the said lands with full liberty at all times to search, dig for and carry away such Metals, Coals and Minerals of every description including Crude Oil and for that purpose to enter upon the said lands or any part thereof.

This lease is subject also to the following covenants and provides; that is to say,—  
1. The rent shall be subject to reassessment in the years 1997, 2022 and 2047 to a maximum not exceeding six (6) per centum of the unimproved value of the land.

2. The lessee shall not transfer, sublet, mortgage, assign or part with possession of the demised land or any part thereof without the written consent of the lessor first had and obtained. Notwithstanding the foregoing the lessee may sublet buildings and part thereof for purposes connected with the University without references to the lessor.

3. The lessee shall bear, pay and discharge all rates, taxes, assessments, duties, impositions and outgoings whatsoever which may be imposed or charged now or in the future upon the demised land or dwelling houses or outbuildings to be erected thereon or upon the owner or occupier in respect thereof landlord's property tax only be excepted.

4. The lessee shall maintain and keep in good repair and tenantable condition, to the reasonable satisfaction of the lessor, all buildings erected upon the demised land.

is the Exhibit marked A and referred to in Affidavit of WATSONI SERUVATI before me this 24th day of April 2002  
Sd/- FAHMI SAURABHAWERA  
A COMMISSIONER FOR OATHS

CROWN LEASE No. 6105  
REGISTERED 8 DEC 1980 at 3.30pm  
FILED  
Registrar of Titles

5. The lessee shall not use or permit to be used the demised land or any part thereof or the buildings and improvements and dwelling-house or accessory out-buildings to be erected thereon other than for the said purposes set out in the University Charter and Statutes or for any trade, business occupation or calling whatsoever other than for the supply of reasonable auxiliary services to the staff and students of the University, to their dependent households and to official visitors to or guests of the lessee; and no act matter or thing whatsoever shall during the term of this lease be done in or upon the said land or buildings or any part thereof which shall or may be or grow to the annoyance, nuisance, grievance, damage or disturbance of the occupier, lessee or owner of the adjoining lands and properties.

6. The lessee shall keep the demised land clear of all refuse, rubbish, weeds and unsightly undergrowth to the reasonable satisfaction of the lessor, and will keep trimmed the grassed area of the site.

7. It is hereby expressly agreed that this lease is not subject to conditions set out in Regulations 30, (d), (f) and (g) of the Crown Lands (Leases and Licences) Regulations Cap. 113.

8. Any dispute between the parties hereunder shall be referred to arbitration in the manner provided for the settlement of disputes upon a reassessment of rent by Regulation 19 of the said Crown Lands (Leases and Licences) Regulations.

9. Notwithstanding the provisions of the preceding covenant any buildings erected on the demised land shall be removable by the lessee within three months before or after the expiration of the lease; provided that:-

- (1) before the removal of any building the lessee shall have paid all rent owing by it and shall have performed or satisfied all its other obligations to the lessor in respect of the demised land;
- (ii) in the removal of any building the lessee shall not do any avoidable damage to any other building or any part of the demised land;
- (iii) the lessee gives a written undertaking or enters into a Bond to the satisfaction of the lessor that immediately after the removal of any building the lessee shall make good all damage occasioned to any other building or to the demised land and shall remove all concrete or other structures, posts, piles, blocks and clear away all refuse and rubbish and leave the land in clean and tidy condition to the satisfaction of the lessor;
- (iv) the lessee shall not remove any building without giving one month's previous notice in writing to the lessor of its intention to remove it;
- (v) at any time before the expiration of the notice of removal the lessor, by notice in writing given by him to the lessee, may elect to purchase any building comprised in the notice of removal and any building thus elected to be purchased shall be left by the lessee and shall become the property of the lessor who shall pay to the lessee the fair value thereof to an incoming lessee of the land; and any difference as to the value shall be settled by arbitration in the manner provided by Regulation 19 of the Crown Lands (Leases and Licences) Regulations.

10. The Lessee agrees that the Lessor or any authorised person or persons may at any time without let or hindrance enter upon the demised land to construct, plant or maintain, posts, pipes, cables or wires and drains of any nature whatsoever above or below the ground anywhere within the demised land.




8. Minutes of Discussions of Draft report explanation

**MINUTES OF DISCUSSIONS  
ON  
THE BASIC DESIGN STUDY ON THE PROJECT  
FOR  
THE CONSTRUCTION OF THE UNIVERSITY OF THE SOUTH PACIFIC  
INFORMATION AND COMMUNICATION TECHNOLOGY CENTRE  
IN THE REPUBLIC OF THE FIJI ISLANDS  
(EXPLANATION ON DRAFT REPORT)**

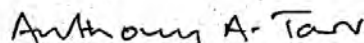
In February 2005, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the Project for the Construction of the University of the South Pacific Information and Communication Technology Centre (hereinafter referred to as "the Project") to the Republic of the Fiji Islands (hereinafter referred to as "Fiji"), and through discussion, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the study.

In order to explain and to consult Fiji on the components of the draft report, JICA sent to Fiji the Draft Report Explanation Team (hereinafter referred to as "the Team"), which is headed Mr. Osamu Makino, Senior Advisor, JICA Regional Support Office for Oceania, from August 15 to August 27, 2005. As a result of discussions, both parties confirmed the main items described on the attached sheets.

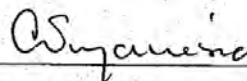
Suva, August 24, 2005



Mr. Osamu Makino  
Leader  
Basic Design Study Team  
Japan International Cooperation Agency



Professor Anthony Tarr  
Vice Chancellor  
University of the South Pacific



Mrs. Alumita Taganesia  
Chief Executive Officer  
Ministry of Education  
Republic of the Fiji Islands

## ATTACHMENT

### **1. Components of the Draft Report**

Fiji side agreed and accepted in principle the components of the draft report explained by the Team. The items covered by the Project are listed in Annex-1.

- (1) The facilities are listed in Annex-1-1.
- (2) The equipment is listed in Annex-1-2.

### **2. Japan's Grant Aid scheme**

Fiji side understands Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Fiji as explained by the Team and described in Annex-4 and Annex-5 of the Minutes of Discussions signed by both parties on February 15, 2005.

### **3. Schedule of the Study**

JICA will complete the final report in accordance with the confirmed items and send it to the Government of Fiji by November, 2005.

### **4. Items requested by USP**

USP requested the following matters and the team agreed to take into consideration. However the Government of Japan will decide whether the items should be included into the project based on the result consideration.

- (1) To provide a Digitization area and equipment in ICT resource room.
- (2) To install some barriers such as doors and glass screen so that the academic staff, visiting staff and core staff rooms on the 3<sup>rd</sup> floor in A wing can be kept quiet from students noise of General access Laboratories on the same floor .
- (3) To ensure compliance with Fiji's newly passed Occupational Health and Safety Laws, such as the inclusion of ramps for disabled access.
- (4) To provide toilets for teaching staff.
- (5) To consider the following Minor revisions.
  - ① Pacific Themes as reflected in rooflines, building materials, as well as internal and external motifs.
  - ② Harmony with the native environment-organic.
  - ③ Promotion of overall sense of "openness".
  - ④ Places for students to congregate, sit, and talk without disturbing other functions of the Centre.

### **5. The items or works to be borne by USP**

#### **a) To demolish existing buildings**

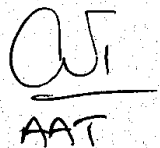
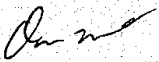
There are some existing buildings on the Project site. USP agreed to demolish the existing buildings prior to the commencement of constructing the Japan-Pacific ICT Centre.

#### **b) To clear, and reclaim the site**

There are some facilities and trees in the Project site. USP agreed to clear and reclaim (if necessary), the site prior to the commencement of constructing the Japan-Pacific ICT Centre.

#### **c) To move the power receiving station**

There is an existing power receiving and generator station in the Project site. USP agreed to move the existing station to a suitable place on the Project site and to relocate it cover the demand for the Japan-Pacific ICT Centre.



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**d) To move the water tanks and containers.**

There are an existing water tanks and containers in the Project site. USP agreed to move them to a suitable place out of the Project site.

**e) Exterior construction (Landscape, Planting and Parking lot)**

USP agreed to suitably landscape the project site and to construct the parking lot for the Japan-Pacific ICT Centre.

**f) Equipment**

USP agreed to provide the equipment requested but not included in the Project.

**g) Furniture**

USP agreed to provide the general furniture and the special furniture requested but not included in the Project.

**h) Theatre equipment**

There is special theatre equipment to be designed for the Multi-Purpose Theatre. Both sides agreed that Japanese side would include the equipment necessary for lectures. USP side agreed to provide the equipment for multi-purpose uses (like theatre and international conference facilities).

**i) Network cabling in the Japan-Pacific ICT Centre**

Both sides agreed that Japanese side would set up cabling channels and USP would install computer and audio-visual network cabling in the Japan-Pacific ICT Centre.

**j) Telephone work**

Both sides agreed that Japanese side would include the telephone piping work and USP would provide telephones, cabling and connecting works.

**k) Existing equipment and furniture for the Japan-Pacific ICT Centre**

USP agreed to move and set up necessary existing equipment and furniture in the Japan-Pacific ICT Centre.

**6. Counterpart Training**

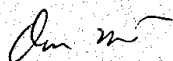
USP requested the Team to arrange counterpart training in Japan on University ICT Centre Management under a technical cooperation agreement with JICA. Fiji side understood that an official request for the counterpart training should be submitted to the Japanese side through the Embassy of Japan by the end of August.

**7. Technical Cooperation**

Fiji side has made a request for a technical cooperation project to assist in activities at the Japan-Pacific ICT Centre, to the Government of Japan. The project purposes are staff development of the Centre and technical support for education, training, and Research and Development, in the ICT fields for the Pacific region. USP would like the Government of Japan to accept the proposal to be implemented from fiscal year 2006. USP considers that the project will be essential for the operation, maintenance and development of the Centre due to a difficulty in current staff situations. In response, the Team promised to convey the proposal to the Government of Japan.

**8. Confidentiality**

Both sides agreed that the draft report shall be confidential, be dealt with carefully and not be disclosed to any other parties.



**Annex-1 Items covered by the Project**

**1-1 The items covered by the Project (Facilities)**

**Table 1 Rooms covered by the Project**

	Department	Room Name	Room(s)	Number of Student	Number of staff
I	Common Area	Multipurpose Theatre	1	300	
		Office - Director ICT	1		1
		Office - Core Staff ICT	3		3
		Reception/Secretary	1		2
		Visiting Staff Office	3		3
		Video Conference Room	1	50	
		Conference Room (50 Parson)	1		
		Staff Common Room with kitchen	2		
		ICT Resource Room (with Digitization area)	1		
		Radio Pasifik' Room	1	17	
		Sub Total			
II	Computing Science	Academic Staff Office	18		18 (18x1p)
		Technical Staff Office	1		2
		Administration Staff Office	1		2
		Tutor Office	8		16 (8x2p)
		Research Laboratory	5	25 (5x5p)	
		Dedicated Networking Teaching Lab		40	
		Dedicated Computer Teaching Lab	4	160 (4X40p)	
		Postgraduate Laboratory	1	24	
		Technical Laboratory (Workshop)	1		
		Sub Total			
III	IT Services	Office - Director ITS	1		1
		Office - Secretary	1		1
		General Office	1		20
		Meeting room (10 parson)	1		
		Laboratory A (Professional)	1	25	
		Laboratory A (Development)	1	25	
		Laboratory B (General Access)	2	120 (2x60p)	
		Workshop(Computer)	1		2
		Server Room	1		
		Storage Room	1		
		Helpdesk & Waiting Area	1		3
		USP Net Control Room	1		
		Sub Total			
IV	Research, Development and Incubation	Office - Research / Incubator	3		
		Test Bed /Incubator	1		
Sub Total					

V	Engineering	Office	1		1
		Technical staff	1		2
		Postgraduate Room	1	4	
		Computer lab	1	12	
		Engineering lab 1	1	30	
		Storage 1/Research	1		
		Sub Total		46	3
		Total		832	78
VI	Others	Toilets, Corridor			
		Foyer			
		Machine room			

**Table 2 Theatre settings covered by the Project**

No	Name	Intended use	Stage Settings Specifications	Construction category
1	House draw curtain (black background)	Used to open and close the stage (and as a scene-change curtain for dramas)	22 m wide, approximately 7.5 m high, black background, electrical motor-driven type	Included in the scope of this project
2	Teasers	Curtains hung from the upper part of the stage to cover the stage flyings from the sight of the audience.	22 m wide, approximately 1.5 high, black background, hand-driven type	Included in the scope of this project
3	Curtains at the wings	Curtains hung from the right and the left sides of the stage to cover broadcasters and tools on the stage from the sight of the audience.	3 m wide, approximately 8 high, black background, hand-driven type	Included in the scope of this project
4	Suspension light	Hung from the pipe batten, chiefly to provide lighting effects on the stage.	650W Fresnel lens spotlight, hand-driven type	Only installation of three pipe battens will be included in the scope of this project
5	Projection screen	A curtain on which an images are projected during lectures.	300-inch white background curtain exclusively for image projection, electrical motor-driven type	Included in the scope of this project
6	Cyclorama	An effect curtain fixed at the innermost section of the stage to project images such as backgrounds	20 m wide, approximately 6.5 high, white background, electrical motor-driven type	Included in the scope of this project
7	Ceiling light	Lighting effect equipment illuminating the stage from the upper part of the audience	1KW plane-convex lens spotlight	Included in the scope of this project
8	Gridiron	A work platform to hang curtains, lightings, and so on over the stage	Pulleys and cables will be placed on H-section steels arranged in the shape of lattice	Included in the scope of this project

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1-2 The items covered by the Project (Equipment)

Table 3 Equipment covered by the Project

Planned Equipment List

Code No.	Description	Q'ty
COM-1	LCD Projector (L)	1 unit
COM-2	LCD Projector (S) /w Screen	2 units
COM-5-1	PC (Desktop type)	1 unit
COM-5-2	Desk & Chair for PC	1 set
COM-5-3	PC (Laptop type)	3 units
COM-11	OHC	3 units
COM-13	DVD Player	1 unit
COM-14	VCR	2 units
COM-15	White Board	3 units
COM-16	TV	1 unit
COM-20	Remote Camera (w/Control System)	1 set
COM-26	Audio Speaker	2 sets
COM-100	Audio Control System for Multipurpose Theater	1 set
COM-101	Video Control System for Multipurpose Theater	1 set
COM-102	A/V Control System for Video Conference Room	1 set
COM-104	A/V Control System for Conference Room	1 set
CSC-1	Server w/Rack	1 set
CSC-4	Switching HUB	1 set
CSC-6	Patch Panel	1 set
CSC-10	Ethernet Card	40 pcs
CSC-15-1	PC (Desktop type)	150 units
CSC-15-2	Desk & Chair for PC	150 sets
CSC-16	Embedded System Board	4 sets
CSC-17	Oscilloscope	2 units
CSC-24	Printer	2 units
ITS-1	Server (High Level)	6 units
ITS-3	Server (General Level)	14 units
ITS-4	Tape Backup Archive	1 unit
ITS-6	Switching HUB	1 set
ITS-7	UPS	1 set
ITS-15-1	PC (Desktop type)	120 units
ITS-15-2	Desk & Chair for PC	120 sets
ITS-20	Printer	2 units
ITS-22	LCD Projector (S) /w Screen	2 sets
ITS-30	Equipment Rack	1 set
ITS-32-1	PC (Desktop type for Scheduler)	1 unit
ITS-32-2	Desk & Chair for PC	1 set
ITS-33	Work Bench w/Chair	1 set
ITS-35	VCR/CD-DVD Combo Recorder	2 units

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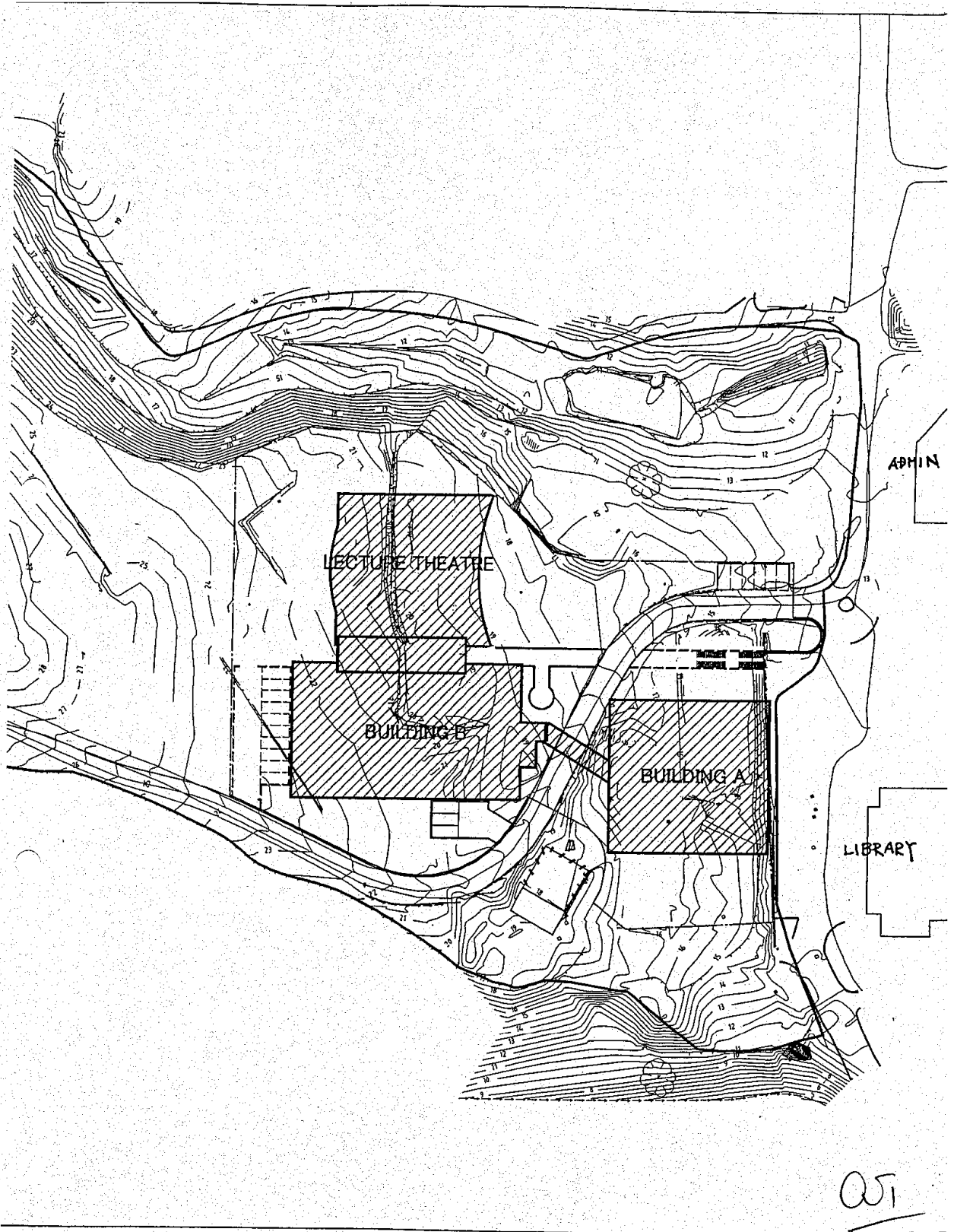
ITS-60	A/V System for UPS Net Control Room	1 set
ENG-5	Analog Communications	1 set
ENG-6	Analog Communications Training System	1 set
ENG-7	Fiber Optic Communications	1 set
ENG-8	Antenna Training and Measuring System	1 set
ENG-9	Microwave Technology Training System	1 set
ENG-11	Digital Communications 1	1 set
ENG-12	Digital Communications 2	1 set
ENG-13	Digital Communications Training System	1 set
ENG-17	Oscilloscope	10 units
ENG-18	Power Supply	10 units
ENG-19	Signal Generator	10 units
ENG-20	Multimeter	10 units
ENG-21	Soldering Station	10 sets
ENG-22	Tool kits	10 sets
ENG-29	Bread Board Set	10 sets
ENG-33-1	PC (Desktop type)	15 units
ENG-33-2	Desk & Chair for PC	15 sets
ENG-34	Server w/Rack	1 set
ENG-45	Lab. Table w/Chair	10 sets
ENG-46	LCD Projector (S) /w Screen	2 sets

**Additional Requested Equipment List**

Code No.	Description	Q'ty
COM-105	PC (Desktop type)	1 unit
COM-106	Microfilm/Microfiche Scanner	1 unit
COM-107	Flat-bed Scanner	1 unit
COM-108	Digital Photocopier	1 unit
COM-109	Book Scanner	1 unit

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8 The University of the South Pacific  
 Information and Communication Technology Center  
 Layout Plan S=1/1000

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## 9. Memorandum of Draft Report Explanation

The Project for the construction of the University of the South Pacific  
Information and Communication Technology Centre

### **MEMORANDUM of the technical items on the draft report**

31<sup>st</sup> August, 2005

Through discussions between the Fiji Government, the University of the South Pacific (herein after called USP), and the Basic Design Study Team, after exchanging Minutes on 24th August 2005, both parties confirmed additional issues concerning the University of the South Pacific Information and Communication Technology Centre as follows:

#### **1. The Schedule of Consultants of the Basic Design Study Team**

Mr. Yamamoto and Mr. Doi left for Tokyo on 27<sup>th</sup> August on schedule. Mr. Koike and Hoshiai extended their stay and will leave for Tokyo on September 1.

#### **2. Confirmed Issues**

##### **A) General**

All parties agree that the total Japanese side project cost will not exceed the total submitted in the Draft Basic Design study.

##### **(1) Pacific Design Themes**

To respect Pacific architectural designs, the consultant will include Pacific concepts such as organic elements and openness as follows:

- a) Make provision on the first floor eaves of the Building-A for planting.
- b) The external walls of all buildings to be finished primarily with concrete or plaster. USP understands the necessary annual maintenance that will be required.
- c) Expand the depth of the eaves in front of the Theatre and make steps suitable for sitting. Consider making these eaves and porch convex rather than concave to reflect Pacific architectural curves.
- d) Represent Oceania designs on the columns, eaves, and wall on the eastern side of the Theatre with USP's collaboration. Oceania designs will also be incorporated on the other external concrete walls of the Theatre.
- e) Expand foyer space between the Theatre and Building-B.
- f) Collaborate with USP on potential landscape designs to integrate the structures into the surroundings.

##### **(2) Roof design**

The consultant agree to consider introducing a significant pitched roof design element to the roofline of Buildings A and B. Design solutions will be discussed with, and approved by, USP prior to finalization. USP understands that some accommodations are required for external equipment but this equipment will be screened from direct view.

##### **(3) Stairs in Building-A**

Additional stairs shall be incorporated in Building-A to improve safety.

##### **B) Construction site**

##### **(1) Bench Marks**

The Project for the construction of the University of the South Pacific  
Information and Communication Technology Centre

We confirmed that three existing bench marks in the construction area shall be kept carefully by construction commencement.

**(2) New road**

In case USP intends to make a new road that approaches to the south side of construction site, USP shall provide the detailed drawing with levels of new road by January 2006.

**C) Demarcation of works**

**(1) Power receiving**

USP shall replace existing FEA's power station to suitable place outside of construction area before construction commencement, and ensure provision of enough power to the new ICT centre.

**(2) Water supply**

Water supply shall be connected at the machine room in the first floor of Building A at USP's expense. Meter shall be installed by USP if necessary.

**(3) Waste water**

Waste water to the ICT centre shall be connected at USP's expense.

**(4) Hydrant stand**

If required, replacement of the external hydrant stands shall be at USP expense.

**D) Requested issues on the proposed design by USP**

We confirmed that following issues shall be included in the final plans:

**(1) Common Area**

a) Theatre

A summary of the discussion on the Theatre building is attached in Annex-1.

b) Wash rooms

- ① Wash room on the 2<sup>nd</sup> floor in the Building-A shall be utilized exclusively as a staff toilet.
- ② The toilet on the 3<sup>rd</sup> floor in Building B shall serve as a handicapped toilet near to the theatre, rather than the 4<sup>th</sup> floor's toilet.
- ③ All wash rooms are to have electric air hand dryers installed. The Japanese side will provide outlets and USP will provide and install the equipment.
- ④ Space and provisions for drinking fountains shall be prepared in three places near to wash rooms. USP will provide and install the equipment.

**(2) Computing Science section Building-B 4<sup>th</sup> floor.**

- a) The layout of the tables in the network laboratories shall be grouped by five 8-student tables.
- b) Reconsider the clearance between the desks in all laboratories so that teacher can walk through near to columns.
- c) The necessary support and wiring routes for ceiling projectors shall be provided by Japanese side so that USP can install them in the future.

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**(3) Engineering section Building-B 3<sup>rd</sup> floor.**

- a) Two fixed windows shall be set up in both the Technical staff room and Computer lab for Engineering Lab observation. The bottom height of the window shall be approx 1,300mm from the floor.
- b) Shelves in the Engineering Lab shall have three tiers and sliding doors with glass. Top height shall one meter from the floor.
- c) A service counter is required between the Engineering Lab and the Storage. The height of the counter is approx 1,100mm and width is approx 500mm.

**(4) ITS section**

- a) The Help Desk service counter shall face the entrance halls to utilize the allocated space efficiently in Building-A's first floor. The height of the service counter is approx 1,100mm and width is approx 500mm. A sliding window with glass is required to separate students and staff.
- b) Changing the location of workshop and storage next to the general office is required in Building-A, 2<sup>nd</sup> floor. If needed, the area of the storage can be reduced.
- c) To secure air ventilation of the general office, it is preferable to install new windows on the west wall of the Building-A 2<sup>nd</sup> floor.
- d) Network concept design will be provided by Japanese side.

**(5) Building Code**

Drawing and specs to comply with Fiji Building Code 1990.

**(6) Building permission by USP**

The consultant shall provide four copies of drawings and specs by June 2006 for USP to submit National Fire Authority (NFA), Occupational Health and Safety (OHS), and the Suva City Council (SCC)

**(7) Other**

- a) The steel columns in the bridge part shall be covered by concrete.
- b) Electrical locks are required at the entrance doors and office doors in R&D section. Building-B 2<sup>nd</sup> floor.
- c) USP shall prepare an Environment Impact Assessment (EIA) report if required by Suva City Council (SCC).

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*For*  
Prof. Anthony Tarr  
Vice Chancellor  
The University of the South Pacific

佐田廣行

*M. Lewis*  
Director, Planning & Development

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**Annex-1: Questions and Answers on the Multi – Purpose Theatre**

(Attendance: Prof. Ian Gaskell, Ms. Linda Austin, M. Yamamoto from BD Study Team)

1	Can lobby function as a gallery? Is the furniture included in the Project?	The interior wall can be used to suspend art works. Furniture to be provided by USP.
2	Any washroom for the audience?	The audience can use toilets on the 2 <sup>nd</sup> and 3 <sup>rd</sup> floor of Building B.
3	The doors from the theatre should open outward.	The consultant will change the door to open outward.
4	The entrance door to the stage must be placed on the north side of the theatre.	The consultant will change the location of the door as required.
5	The height of the stage door should be 2.5 meters high.	The consultant will change the door height between 2.1 – 2.5 meters.
6	The floor finish of stage must be 'linoleum' preferably on the plywood flooring. The nail would be driven to support theatre props.	The finish is the vinyl sheet with a cushion used for the Ballet, finished on the concrete floor.
7	The storage space is shorted.	The consultant will adjust machinery space to increase the stage side area
8	The gridiron and H steel	The H steel of rigging loft is placed every 15 – 30 cm so that the backstage people can walk on it.
9	The 2 <sup>nd</sup> and 3 <sup>rd</sup> catwalk should be used to accommodate lighting instruments. For this purpose, the handrail should be 1 and half inches in diameter.	The catwalk itself is just for maintaining the ceiling lights. However, the consultant will study the detail of handrail and ceiling sections.
10	The catwalk to be masked?	No need to mask it for the cost sake.
11	The lighting instrument from the 2 <sup>nd</sup> catwalk should be zoom ellipsoidal, 8 degrees and 13 meter throw.	Stage lighting instruments will be provided by USP.
12	The metal halide lights should be changed to be dimmable type fixtures.	The consultants will change it to the dimmable type fixtures.
13	12 Circuits for lighting per FOH pipe	The circuits and pipes will be provided by USP.
14	12 Circuits per LX pipe, 36 in total	The circuits and pipes will be provided by USP.
15	6 Circuits per side as floor pocket	The consultant will check and involve in the electrical drawing.
16	All circuit should be connected to a cross connect system.	The dimmer, hook-up, control board will be provided by USP. So the consultant will prepare the pipe ducts.
17	Video Projector will be mounted?	It will be suspended from the ceiling at the rear of the theatre.
18	The side leg placement	The 4 rows will be decreased to 3 rows.
19	The legs to be either swivel or hinged battens.	The consultant will check which system would be adopted.
20	Floor power points on stage and the side of the 1 <sup>st</sup> tier.	The consultant will involve the power point as requested.
21	Intercom is needed on stage and FOH	Intercom will be provided by USP.
22	Mic lines should be in the same place	The consultant will reflect the lines in the electrical drawing.
23	The projection screen seems small.	300-inch screen is big enough.
24	The black traveler involved in the Project should be changed to 'gold'.	The consultant will check the specification as requested.

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## 10. List of References / Documents Obtained

Document name	Issued by	Remarks
Public Health (National Building Code) Regulations 2004	Ministry of Health	
Fiji Brief	Ministry of Information, Communications and Media relations.	
20 Year Development plan (2001-2020) For the enhancement of participation of indigenous Fijians and Rotumans in the socio-economic development of Fiji.	Ministry of Finance and National Planning	
Rebuilding confidence for stability and growth for a Peaceful, Prosperous Fiji	Fiji Government	
Strategic development plan: 2003-2005 November 2002	Fiji Government	
Policy directions and strategies for the development and growth of information and communication technology.	Fiji Government	
National ICT strategy plan 2003-2005 & E-government cornerstone Program	Fiji Government	
The Fiji Government information technology policies and principals Version 2.00.00	Fiji Government	
Health and safety at work(general workplace conditions) regulations 2002	Ministry of Labor industry relations & Productivity	
An act to amend the health and safety at work act 1996	Ministry of Labor industry relations & Productivity	
Information and communication technologies for development in Pacific islands developing countries. 6-9 December 2004	USP Symposium summary	
Sub-regional symposium on ICTs for Development in Pacific islands developing countries. 6-9 December 2004	USP Symposium summary	
Pacific islands regional ICT consultation 9-11 April 2003	USP Symposium summary	
Pacific islands Information and Communication Technologies Policy and Strategic Plan. April 2002	CROP ICT working group	
USP 2005 calendar	USP	
Building space audit. University of south pacific	USP	
USP Annual 2003 report	USP	
USP Net 2000	USP	
USP strategic 2003 achievements	USP	
Development 2004 @ USP	USP	
School of social economic development		
Standards & Specification	USP	
A regional University of Excellence	USP	
Weaving past and present for the future		
A vision to the year 2020		
USP financial 2003 statements	USP	
SEED annual report 2003	USP	
Government strategic plan	Data#3 Group	
ATH annual report 2004	ATH	
Statistical News/Consumer price index December 2004	Fiji islands Bureau of statistics	
Meteorological data	Fiji Meteorological Services	
Drawings on telephone line, water supply and drainage, and power supply	Public Works Department	
Seismic and tsunami data	Seismology section Ministry of Mineral resources	

## 11. List of requested equipments/Planned equipments

Code No.	Description	Requested Q'ty	Planned Q'ty	Allocation												
				COM				CSC		ITS			ENG			
				1	9	11	14	6	8	7	10	14	4	5		
COM-1	DLP Projector (L)	1	1	1												
COM-2	LCD Projector (S) /w Screen	2	2		1	1										
COM-5-1	PC (Desktop type)	1	1				1									
COM-5-2	Desk & Chair for PC	1	1				1									
COM-5-3	PC (Rack mount type)	3	3	1	1	1										
COM-11	Presenter	3	3	1	1	1										
COM-13	DVD Player	1	1				1									
COM-14	HDD/DVD recorder	2	2				1						1			
COM-15	White Board	3	3	1	1	1										
COM-16	LCD TV	1	1				1									
COM-20	Remote Camera (w/Control System)	1	1		1											
COM-26	Audio Speaker	2	2		1	1										
COM-100	Audio Control System for Multipurpose Theater	1	1	1												
COM-101	Video Control System for Multipurpose Theater	1	1	1												
COM-102	A/V Control System for Video Conference Room	1	1		1											
COM-104	A/V Control System for Conference Room	1	1			1										
CSC-1	Midrange Server w/Rack	1	1				1									
CSC-4	Switching Hub	1	1				1									
CSC-6	Patch Panel	1	1				1									
CSC-10	Ethernet Card	40	40				40									
CSC-15-1	PC (Desktop type)	150	150				40	110								
CSC-15-2	Desk & Chair for PC	150	150				40	110								
CSC-16	Embedded System Board	4	4				4									
CSC-17	Oscilloscope	2	2				2									
CSC-24	Printer	2	2				1	1								
ITS-1	High end Server	6	6							6						
ITS-3	Midrange Server	14	14							14						
ITS-4	Tape Backup Archive	1	1							1						
ITS-6	Switching Hub	1	1							1						
ITS-7	UPS	1	1							1						
ITS-15-1	PC (Desktop type)	120	120							120						
ITS-15-2	Desk & Chair for PC	120	120							120						
ITS-20	Printer	2	2							2						
ITS-22	LCD Projector (S) /w Screen	2	2							2						
ITS-30	Equipment Rack	1	1							1						
ITS-32-1	PC (Desktop type for Scheduler)	1	1											1		
ITS-32-2	Desk & Chair for PC	1	1											1		
ITS-33	Workbench w/Chair	1	1											1		
ITS-35	HDD/DVD recorder	2	2											2		
ITS-60	A/V System for USPNet Control Room	1	1											1		
ENG-5	Analog Communications	1	1													1
ENG-6	Analog Communications Training System	1	1													1
ENG-7	Fiber Optic Communications	1	1													1
ENG-8	Antenna Training and Measuring System	1	1													1
ENG-9	Microwave Technology Training System	1	1													1
ENG-11	Digital Communications 1	1	1													1
ENG-12	Digital Communications 2	1	1													1
ENG-13	Digital Communications Training System	1	1													1
ENG-17	Oscilloscope	10	10													10
ENG-18	Power Supply	10	10													10
ENG-19	Signal Generator	10	10													10
ENG-20	Multimeter	10	10													10
ENG-21	Soldering Station	10	10													10
ENG-22	Tool kits	10	10													10
ENG-29	Bread Board Set	10	10													10
ENG-33-1	PC (Desktop type)	15	15												12	3
ENG-33-2	Desk & Chair for PC	15	15												12	3
ENG-34	Midrange Server w/Rack	1	1													1
ENG-45	Workbench w/Chair	10	10													10
ENG-46	LCD Projector (S) /w Screen	2	2												1	1
ADD-1	Microfilm Scanner	1	1				1									
ADD-2	Flat-bed Scanner	1	1				1									

\*Installation Room

COM-1	: Multipurpose Theatre
COM-9	: Video Conference Room
COM-11	: Conference Room
COM-14	: ICT Resource Room
CSC-6	: Dedicated Networking Teaching Lab.
CSC-8	: Dedicated Computer Teaching Lab.
ITS-7	: Laboratory B ( General Access )
ITS-10	: Server Room
ITS-14	: USPNet Control Room
ENG-4	: Computer Lab.
ENG-5	: Engineering Lab.1

