CHITTAGONG UNIVERSITY OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Report - 1

Problem Analysis and Requirement Specifications of IICT, CUET
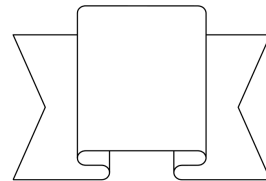
COURSE CODE : CSE 354
COURSE NAME : SYSTEM ANALYSIS & DESIGN (SESSIONAL)

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Introduction

Institute of Information and Communication Technology (IICT) is one of the fundamental part of CUET administration. It provides various services such as networking, database management etc. as an non-profit organization.

It aims to promote and provide facilities for post-graduate study in ICT for graduates from various disciplines, to actively pursue advance research in ICT in order to develop knowledge- based products and services, to produce manpower and expertise in ICT by carrying our training in diverse areas for those interested to step in profession as well as those already engaged in the profession.

Problem Statement

i. To learn about the management system of IICT, CUET.

ii. To know about the management hierarchy of the institute.

iii. Learning about the wings of the system.

iv. To learn about the various activities of IICT.

v. Learning about the services and facilities of IICT.

Purpose

IICT provides some of the essential services such as online course registration system, online payment system for the faculties and officers, networking services etc. which plays a significant role in terms of digitalization of CUET. Apart from all of those activities, there are some scopes to improve the services and system management to cope up with the digital world.

Therefore, this institute is choosen for anlysis, as it is an ideal institute, as well as system, we can analyse and study the management structure, various types of information, requirements specification etc.

Scope

i. Vast majority of students, faculties and others can take the proper advantage of this system.

ii. It provides numerous technical support and large scale of information for the welfare of the university.

Overview of the Organization

IICT is located in the academic building - 3, CUET. To achieve the aims and objectives, the institute is performing under two wings; (i) Academic Wing and (ii) System and Support Wing. Academic wing provides technical and training courses such as CCNA, Web Development. Through System and Support section, IICT promotes 24 hour connectivity to internet in all the academic buildings, administrative building, students' halls and residential area via wifi and Broadband with 70mbps Bandwidth. Bill payment system for faculties and officers is developed and maintained by IICT. All required softwares and technical supports are developed and provided by the institution. Along with this the functionalities can be represented in figure 1 as below,
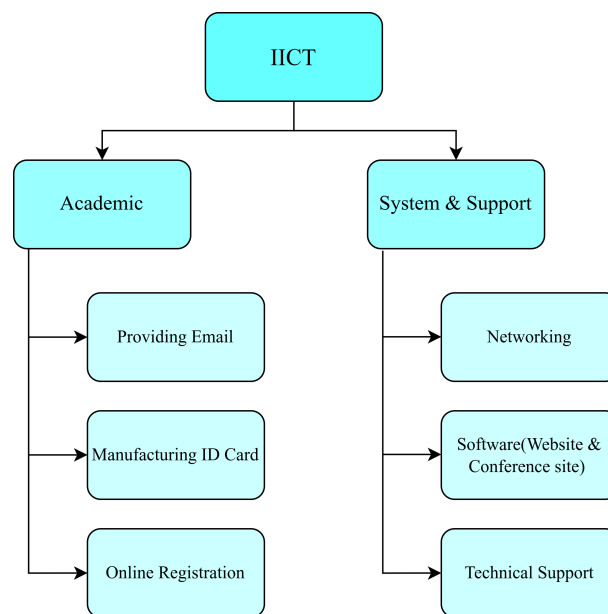

Figure 1: IICT Wings

There are 19 employees currently working in this institute.

Management Structure

There are three level of management such a high level, mid level and low level where Director is in the highest level, supporting engineers are in the mid level and other staffs are in the low level. Following pyramid structure reflects the idea of their structure in general. For more specification the hareierchy is build according to their position, although the employees stated that there doesn't exist any actual levels apart from the Director and the System Analyst.
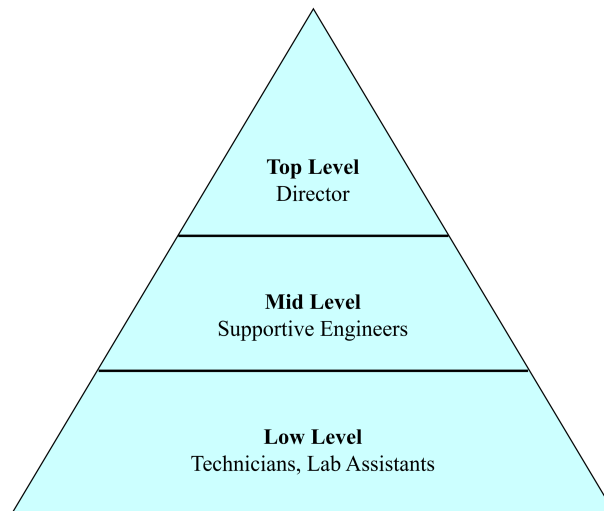
Figure 2: Management Structure

From figure 3, we can say Director is the overall controller of the system, everyone works under the management of the Director. System analyst comes immediately after the Director and Sub Divisional Engineer, Assistant Network Engineer, Assistant Computer Programmer works under the System Analyst. Then comes Data Entry operator, Internet Service Operator, Assistant Programmer who works under the previous Engineers. All the staffs and low level employees works under these officers where some may have one more upper level.
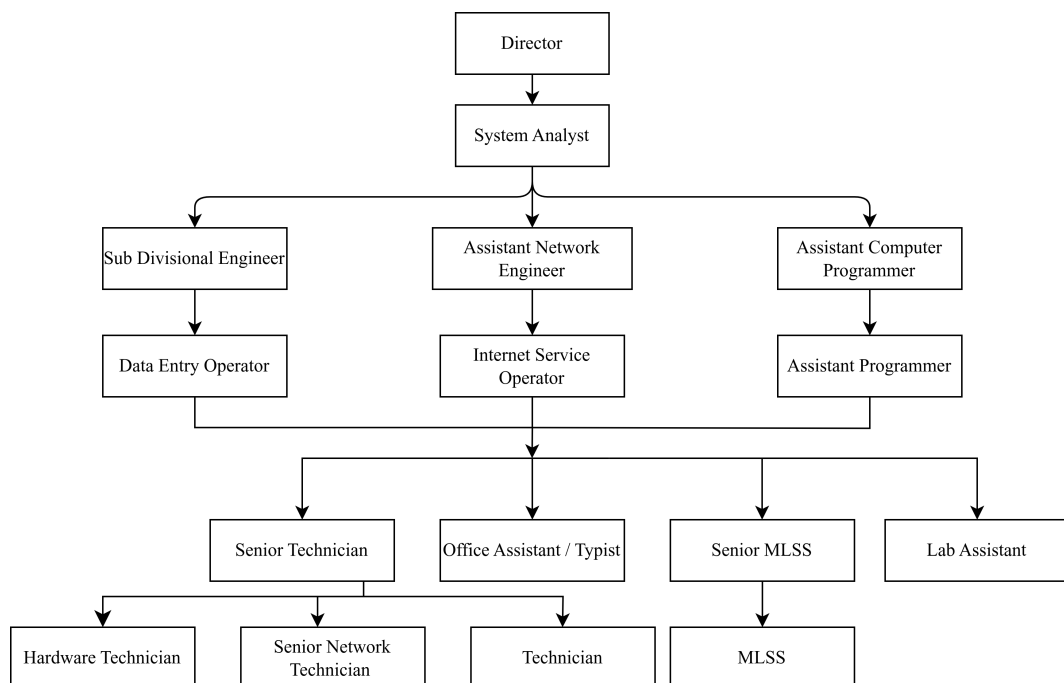

Figure 3: Management Hareierchy

Types of Information

There are four basic types of information we collected from this institution. These information were taken by interviewing the employees, summerising their documents, overviewing the workflow and their fields.

Operational Information:

- Data Entry

- Maintain Email Service

- Managing Server

- Maintain Broadband Service

- Surveilling whole institution (CUET)

- Operating Online Registration

- Manufacturing ID Card

Tactical Information:

- Offering Technical Courses

- Providing Training Courses

- PGD (Postgraduate Diploma) in ICT

- Providing Server for Undergraduate Admission Test

Strategic Information:

- Offering Edu-Roam Facilities

- Introducing GPU Service

- Providing D-nothi Service

- Bringing SSO (Single Sign On) Service

Statutory Information:

- Budget Allocation Report

- Financial Year Report

Information Gathering

- What is the basic Concept of IICT (CUET) ?

- The number of Wings ?

- About management Hierarchy ?

- Total Number of current Employees ?

- What are the day to day activities ?

- What are short term activities ?

- What are the long term planning ?

- Which facilities they provides ?

- The variety of their activities ?

- What are the available services ?

- About the diversification of the system ?

Along with these basic activities and workflow, we also gathered information about their financial policies, reports, relationship with other individuals etc.

Requirements Specification

We have specified some systems requirements based on their planning which includes,

- Inceasing in bandwidth up to double in near future.

- Recruiting young, talented workers who will be part of the development.

- Updating online registration system which will bring more user friendly environment such as multiple payment system,refunding.

- Desgining automated communication system which allows user to know the basic needs of issuing New ID Card with any real time reply.

Conclusion

Analyzing an Organization's Information System was the Main Task. Because IICT, CUET is Already a Well Developed System and It plays a Significant Role in CUET, We Choose it for Our Project. The Time Constraints on Information Collecting and the Employee's Rigid Schedules were Challenging which We Encountered Throughout the Process.