CHAPTER 1

INTRODUCTION

1.1   OVERVIEW

The Component Electronic Inventory Management System (E-ECLAB) will be developing to handle Electronic Laboratory in Faculty of Manufacturing, UMP. This chapter briefly discusses about background of study, the definition of terms, problem statement, objective of research, scope of the project, organization of thesis, and significant of project.

1.2   BACKGROUND OF STUDY

Previously, Electronic Laboratory are using the old inventory system, in which formerly students fill out the application form to apply the components manually. Faculty of Manufacturing Engineering which consist almost 500 students has given a burden to the lab assistant to manage all application by manual from students. In addition, laboratory coordinator has difficulty in time management for record all components. Before this coordinator only manually writing to insert the data of quantity of component and make a filing the paper inventory on laboratory of electronic components.

This project is named Component Electronic Inventory Management System (E-ECLAB). It will replace the current system with a more organized and efficient. The current system is developed using Microsoft Excel as database. Where a function of this system is trigger users about the expired date of working standard set. The system to be will be developed using Microsoft Office Access and VB language which act as

database and design interface language. It provides more functions compare to current system. Functions which add in are such as to keep record of all hardware and software which used in production line. With this system, users are able to maintain the hardware, software which used in a more systematic way.

The proposed system will be using distributed system approach. It means that each computer will be located one inventory management system, whereas the database will be located at the server PC. A computer will access data from the server PC. Data which modify by users will be sent to server PC as the database is located at there.

1.3   PROBLEM STATEMENT

In the electronics lab of FKP, laboratory coordinator had face a problem in manage the smaller components in large quantities when students who wish to apply for this component and will impact on throughout monthly and annually stock.

1.4   DEFINITION OF TERMS

Inventory management is primarily about specifying the size and placement of stocked goods. Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods. Application of inventory management widely use at warehouse and supermarket like IKEA, Courts Mammoth, TESCO, CARREFOUR.

There are a lot of definition terms to create the inventory management. An inventory management is the process of overseeing the constant flow of units into and out of an existing inventory. This process usually involves controlling the transfer of the unit to prevent inventory from being too high, or is significantly reduced to a level that can be put into operation a system is in danger. Competent inventory management also seeks to control costs and quantities associated with inventories, both from the perspective of the total value added goods and tax burden generated by the cumulative value of inventory [1]. But another term of inventory management is when all

operations keep inventory, which refers to the stored materials that exist within an organization and applies to raw materials, purchased parts, work in progress and finished goods. The terms inventory and stock are used interchangeably, as is the case here, although by definition inventory is usually referred to in value for example in pounds and dollars while for stock inquantity, example in kg, 100s and meter. Inventory primarily arises because of differences in the timing orrate of supply and demand and is used to balance these. Inventory may also occur due toeconomic batch sizes for an operation, product seasonality and investment for new product ranges. [2]

1.5   OBJECTIVE

The objective of the research project summarizes what is to be achieved by the study. These objectives should relate to the research problem. Which is:-

i.   To create database for inventory Management system of Electronic laboratory.
ii.   To develop an interface for E-ECLAB that can connect with database.

1.6   SCOPE OF THE PROJECT
1.6.1   User

The users of this system consist of coordinator or administrator, and client or know as students, staffs of Faculty of Manufacturing Engineering. Each class of user has their access level.

1.6.2   Specific platform

This system will be run by using Microsoft XP/ WINDOW7 operating system. Besides that, other platform Visual Basic input output references are used in this project where the function is to link interface and machine device.

1.6.3   Where the system to be use