

## **CHAPTER 5**

### **CONCLUSION**

#### **5.1 Summary**

For hardware part, there is 2 hardware boxes that made in this system. The bigger sized box is for WiDSTAC, the smaller sized box is used by circuit of device for Receiving or Transmitting from/to PC. For software part, there is 3 type of results : 6 form from Visual Basic (call as Students Lab Marks System software), around 650 lines 8051 program code and database (Microsoft Access).

This system work in half duplex transmission with asynchronous serial communication. In the WiDSTAC, there is 2 function that user can choice either Add function or Find function. Add function is to key in student marks to system. Find function is to call the exited marks to display it. Simple mark statistic for total students, lower mark, higher mark and graph (Mark Vs. Table Number) in one group of lab will display in Visual Basic's application. The distance transmission between WiDSTAC and device for Receiving or Transmitting from/to PC is around 50 feet.

The 8051 program is set to accept certain digit value like matric number have in 9 digits number. To use the Students Lab Marks System software, user have to login first. Without password or username the system can not work with. The save button just will be active when in Edit Record form. After user click on Save button, there is 2 database will create. Once in folder that C:\VB\ ‘program’\ ‘subject’\ ‘lab number’.mdb and another back up database will save in c:\database\ ‘program’\_ ‘subject’\_ ‘lab number’ \_backUPfile.mdb. Button Edit Record and Marks Statistic is password protected.

This system can improve the marking system with this simply system. It also easy to manage student' mark databases besides save time and energy for users. In term of maintain the system is more easy if compare with using cable. This system cans assurance that the mark key-in is correctly or less human error occur. It can be implement in universities or schools.

The system just can accept the early data that key-in to database. If want to edit it, it must edit it in Students Lab Mark System software or in Microsoft Access directly. And the user needs to create the directories folder before it use by system.

## 5.2 Recommendation for future project

In 8051 program, can add more function like add more program, subject on menu. Besides it, we can make the outlook of the boxes for device look more attractive or more smaller the size. Have battery design where is can be rechargeable or extend battery life. It also can add more like upgrade the function like user can edit the record using WiDSTAC. And the adding of folder directories in Visual Basic can automatically create without user create on it manually. The function of Visual Basic can add more like print out the database. It also can be transfer the Visual Basic program to Visual Basic.Net so the future system might use in wet base without install the Students Lab Mark System software in PC or laptop, the user just need open the website via internet.

## 5.3 Commercialization Potential

After improve this system in future, it can be use widely in university and schools specially for the lab period. The target customer is who involved in education fields that need key-in mark on the spot, it also easy to manage student' mark databases besides save time and energy for users. In term of maintain the system is more easy if compare with

using cable. This system can assurance that the mark key-in is correctly or less human error occur. I hope one day UniMAP will implement this system in university first since this system is bring so many benefits and after that recommend this system to another education body to get profit.