**1.2. Objectives of the Project**

The design project aims to develop a Volleyball Electronic Scoreboard (VES) that can be used to display score and information to the people involved in the volleyball game.

Specifically, the VES aims to provide the following features and functionalities:

1. It has a raspberry pi model b as a microcontroller and a 40” flat screen TV to display a clear and visible digital score, team names, set, name of the next competing teams, the time and date of the event and flash images.
2. It has a wifi connectivity to wirelessly control the VES using android application.
3. It has a desktop application to control the VES that uses Local Area Network wire to connect the two devices.

4. It has a database that can store information like the sets, time out, date and time of the event, scores, the winning and the losing team, game number and names of the team.

**1.4. Project Scope and Limitation**

The VES is an electronic scoreboard that can display the digital score of each team, the sets, team names, time out and the total score per set. To easily display the score, the VES will use an application that will be installed in the android phone. This application will be consisting of buttons. Once the GAB presses the button the android phone will send the data to the device through Bluetooth. Then when the device receives the data it will perform the corresponding command which is to change the display in the screen. Aside from using an android phone, the VES can be controlled using desktop. Application will be created for the desktop so that it can display the scores in the screen through LAN. Information like images will be displayed like flash messages, likewise it will be displayed using a laptop. Data will also be stored in a database so that the person in charge can do both tasks at a time. The VES is also intended not only to display score but also for displaying messages. The sports committee can display what team will be competing and the time and date of the event through typing on the android application and sending it to the device through bluetooth, together with the scores it will be displayed in the screen.

However, the connection of the device and the android phone is less than 10 meters and from desktop to device is 10 meters. The VES can only be controlled by one controller at a time and the phone that will be paired and the laptop that will be connected through LAN can control the display in the screen. The display is only limited to 5 sets and maximum of 10 characters for the team names. The VES will only store in the database sets, time out, date and time of the event, scores, the winning and the losing team, game number and names of the team. Also, the VES will use only an Alternating Current power for power supply.