CHAPTER V

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The researcher was able to develop a Hardware and Software Integration System required to run Linux on the Cyclone V SoC SoCKit Development board and the associated Linux Based Operating System on which the OpenCV Library runs the Face Detection Algorithm for the Face Detection System. In addition, the Researcher also developed a separate test system using an Intel CISC based Core i7 platform and compare the performance with the SoCKit Deployment of the Face Detection System. The researcher concludes that there is still a lot of development in terms of patches, fixes and improved system integration necessary to allow for the Face Detection System on the RISC based SoCKit to close the gap with a full pledge CISC CPU which according to the test result is around 43.44% difference.

5.2 Recommendation

The researcher highly recommends continued study in:

A Linux Environment including Kernel and GUI that is fully compatible with the SoCKit System and with the additional fixes of the issues encountered especially in UVC.

Adding the sound support for the Linux System. Future implementation may then support both Face and Audio Recognition.

Hardware Acceleration using FPGA component of the SoCKit for various algorithms that are involved in the OpenCV Library and various other libraries.