ABSTRACT

In this thesis, I propose a complete a real-time face recognition framework based on *OpenCV*, *dlib* and *scikit-learn* by building independent modules. The framework demonstrates a complete process of constructing a face system from raw videos and images. I also created data preparation and data processing tools to group and label faces. The face system is tested on a Vietnamese face dataset which was collected and labeled from surveillance videos. The accuracy of the framework for identification is over 93% with the speed of 10 frames on a normal computer. The results are promising and can be enhanced to meet the demands of a real-time system.