

**MASTER'S PROJECT (SUMMER 2015)****TOPIC:** *Enhance Secure Login to a Windows System Using Facial Recognition***PRESENTOR:** Laxman Kumar Pothamshetti**ADVISOR:** Dr. Haiping Xu**DATE & TIME:** Tuesday, June 30, 2015, 1:30 PM**LOCATION:** Dion 303**COMMITTEE MEMBERS:** Dr. David Koop and Dr. Firas Khatib**ABSTRACT**

As one of the major biometric techniques, facial recognition has received great attentions in the past decades due to its many applications such as people tagging, gaming and security identification. Among them, facial recognition for robust security systems has become more and more important, and it is now widely used by law enforcement agencies as well as the industrial corporations. In this project, we examine the usage of facial recognition for secure login to computer-based systems. The motivation of this project is to automatically detect intrusions to a computer system by verifying the owner's biometric facial features. The verification process is transparent to the users; therefore, both the owner of the computer and the potential intruders will not notice the underlying detection process. When a user tries to login to a computer system, the facial recognition system is initiated and start to capture the user's facial features. Such features will be compared to the facial features of the owner stored on the local computer as well as in the cloud. If the features match and the password is correct, the user can successfully login to the system. However, if the features do not match or the password is incorrect, pictures of the user will be uploaded into the cloud, and a notification email will be sent to the owner of the computer. To demonstrate the feasibility of this approach, we developed a login system using facial recognition on Windows. We adopted an existing facial recognition tool and showed that such a system can greatly enhance the secure login to Windows systems.