

**Master 2020**

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**Frictionless Access Control in Secured Areas Using Facial Metrics.**

***ABSTRACT - Masterthesis***

Solutions of access control in highly secured areas do not have any support for traceability and availability. Most of the solutions are designed and they rely on the usernames and passwords that are usable on various platforms. An operator is required on a 24by7 basis to continuously monitor the secured area and keep a track on the infrastructure. It will be operator responsibility to take appropriate action in case on any suspicious activity which happens in the secured area. The thesis report proposes a prototype solution which can be used for the appropriate facial recognition and authentication for providing the access in the highly secured area. The solution proposed herewith is quite user friendly and does not involve any kind of manual intervention in order to gain access. The solution is capable to allow access to the right set of users and deny the access to the other users. The solution is designed with keeping in mind the actual flow of access control, how exactly the images get captured and the same is used by the backend application to grant and block the access for the users accordingly. The proposed solution was tested for various set of users, under various conditions of environment and room brightness with the facial recognition solution running on the designed setup.