ÇANKAYA ÜNİVERSİTESİ

Department of Computer Engineering

Biometric Identification based on Face and Iris Recognition

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Biometric Identification based on Face and Iris Recognition

- Technological companies which want to keep in safe their information against threats. FIRec will provide private security to protect companies' information with using face and iris pattern which employee authorized at the project. We goal to provide consistent, perfect security system for the companies which want to protect their private information.

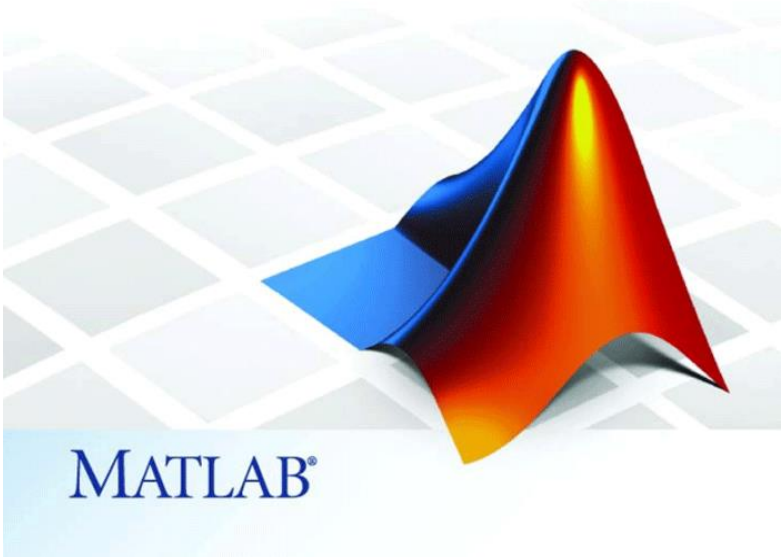
Main Features

- Detection
- Feature Extraction
- Classification

Workplan

	Start Date: 27/02/2018	Assignment	
	Work Plan		
	Sprint 1		Week (1-4)
13.02.2018	SRS and SDD Finalization	Team	
20.02.2018	Algorithm Research	Utku Özcan, Edanaz Pekdemir	
27.02.2018	Dataset Research	Team	
06.03.2018	MATLAB Research	Tolga Özalp	
13.03.2018	Test Plan	Team	
	Sprint 2		Week (5-8)
20.03.2018	Feature Extraction (Face)	Edanaz Pekdemir, Tolga Özalp	
27.03.2018	Algorithm Research (Face)	Utku Özcan, Edanaz Pekdemir	
03.04.2018	Classification (Face)	Tolga Özalp, Utku Özcan	
10.04.2018	Test Face Recognition	Team	
	Sprint 3		Week (9-12)
17.04.2018	Feature Extraction (Iris)	Edanaz Pekdemir, Tolga Özalp	
24.04.2018	Phase-based method Imp.	Utku Özcan, Edanaz Pekdemir	
01.05.2018	Classification (Iris)	Tolga Özalp, Utku Özcan	
08.05.2018	Test Iris Recognition	Team	
	Final		Week (12-13)
15.05.2018	System Testing	Team	
21.05.2018	Project Report	Team	
20.05.2018	Demo Prepration	Team	
21.05.2018	Final Presentation	Team	
21.05.2018	Project Poster	Team	

Used Technologies



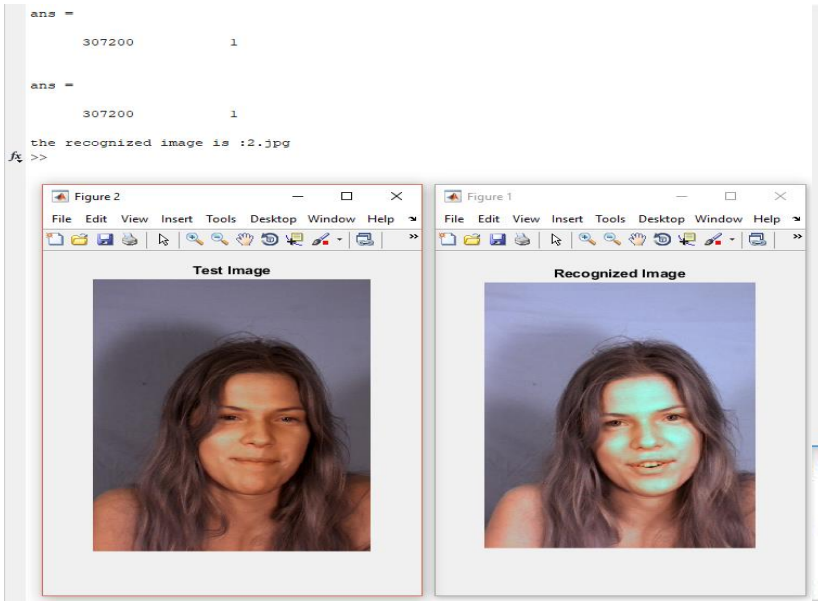
Success Criterion

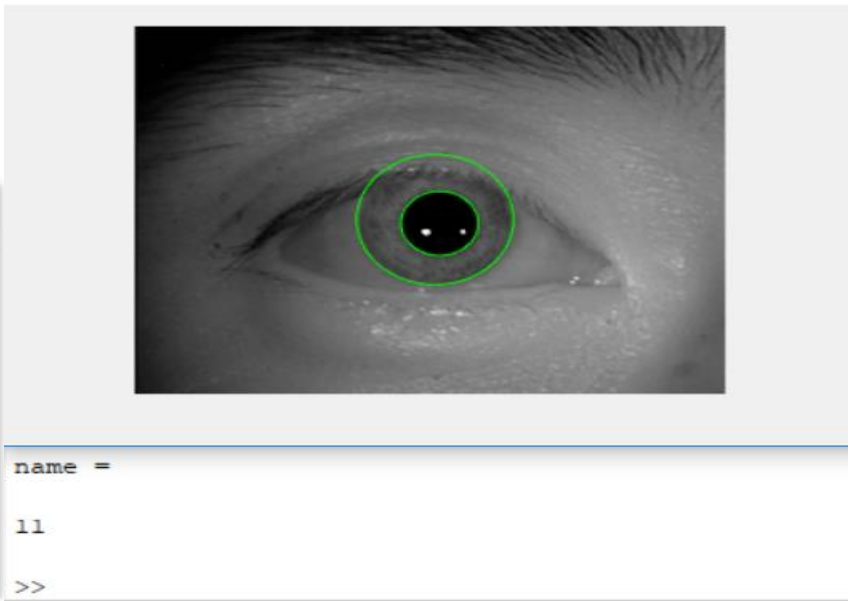
Ability to authenticate worker from his/her Face and Iris

Recognition Method	Method Name	How to Measure
Face Recognition	Principal Component Analysis (PCA)	Using a database we calculated matching rate as 80% , we use 3 gray-scale images for each worker to train and then we use 1 image to test.
Iris Recognition	Phase-based	Using a database we calculated matching rate as 90% , we use 7 images for each worker to train and then we use 2 images to test.

Potential Risks and Expected Outputs

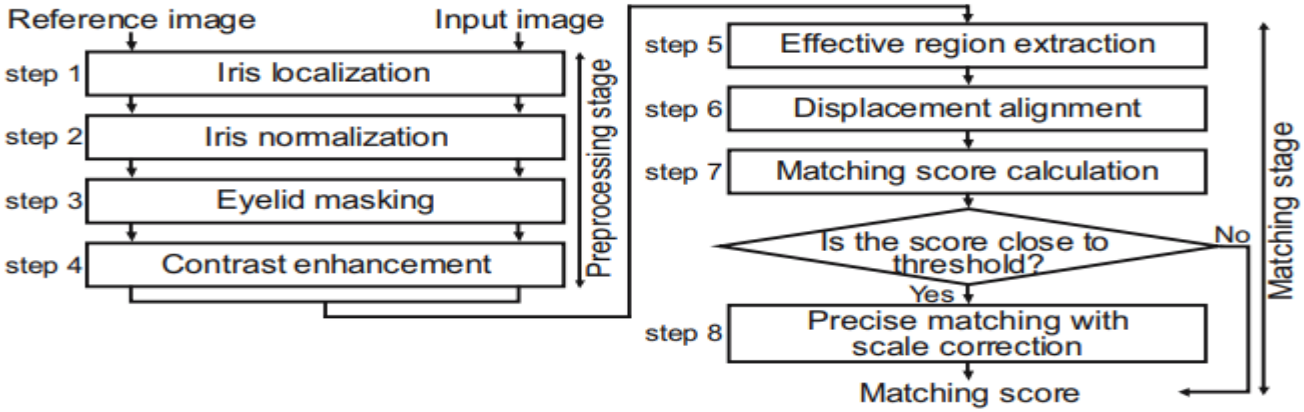
- Illimunation (Both)
- Pose and Facial Expression (Face)
- Image Quality (Both)
- Alcohol Consumption (Iris)
- Distance (Both)





Materials & Methods

- Phase-based Method for Iris Recognition



- Principal Component Analysis (PCA) Method for Face Recognition
  - Eigen-faces

Thank you for listening