REPUBLIC OF MACEDONIA
Ss. Cyril and Methodius University in Skopje
Faculty of Computer Science and Engineering
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Final project proposal

Type	Master
Title	*Gaze-based interaction for mobile devices*
Supervisor	Prof. dr. Suzana Loshkovska
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Department / Group	
Software Engineering	
Topic(s)	
Human-computer interaction	
Project can start from	01.04.2014-01.02.2015
Project duration	4 months
Short description	
The human-computer interactions for mobile devices are generally haptic interaction. Another interesting approach to interact with the mobile device is to use mobile camera to enable "gaze-based interaction". The camera enables tracking user eyes movement and using this information to control the application. The concept of gaze based interaction for mobile devices is still a challenge to implement due to hardware-specific limitations and the complexity brought by environmental factors. The aim of the project is to research possibility of recognizing eye commands obtained by mobile device camera and to use these commands in real application. The objectives include: definition of eye commands (gestures), implementation of image-processing and pattern recognition algorithms for recognizing commands and development of application that enable user communication. The student should propose and implement a prototype application.	
Results and assessment	
The result will be a simple prototype eye tracking "app" for mobile phone cameras that will enable controlling the application with eye. The student should write a report and prepare presentation.	
Other (additional) information	