In this project we would like to generalize the concept of gaze interaction and investigate the possibility of using a gaze tracker for interaction with different computer screens and the other environment objects in a mobile situation.

Eye movements, pupil center and pupil diameter and the other eye features can be measured in the eye image.

Point of regard in the field of view can be estimated by the eye tracker. Using some efficient and reliable computer vision methods for recognizing the gazed objects in the scene image, makes it possible to detect the object the user is attending to.

**Eye-based head gestures for communication**
Head gestures can be used for controlling the virtual/real objects when you are looking at the object. A method is presented for detecting head movements using only eye images and the point of regard which can be measured by the eye tracker.

**Mobile interaction with multiple screens**
We have presented a method that enables the user to interact with any planar digital display in a 3D environment using a head-mounted eye tracker. An effective method (temporary visual markers) for identifying the screens in the field of view of the user is also presented which can be applied in a general scenario in which multiple users can interact with multiple screens.