ABSTRACT

Theme: ‘Facial Expression Recognition based on Active Appearance Models’.

Thesis explanatory note: 82 p., 35 fig., 10 tab., 1 appendix, 12 sources.

The object of research – technologies of facial expression recognition.

Purpose of work – design and develop a system based on active appearance models to detect people emotions.

This paper reviewed and analyzed existing methods of face detection and facial expression recognition using obtained data, analyzes released products on the market, reviewed advantages and disadvantages of each one.

A system for detecting control points of the face based on active appearance models and facial expression classification was developed.

The system is implemented using the Matlab environment and its own programming language. The development took place on Windows 10 system.

Results accuracy, successful and fail experiments are shown in this paper.

The results of this study should be used for developing systems to detect people facial expression recognition and monitor their emotional condition.

FACIAL EXPRESSION RECOGNITION, STATISTICAL MODELS, SHAPE MODELS, TEXTURE MODELS, ACTIVE APPEARANCE MODELS