

Hand gesture-based film restoration⁴

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In the information society the communication between user and computer has become very active research area. As the camera and computer prices are decreasing, the vision-based systems are more available by everyone, the development of computer vision and analysis is becoming an important research area in Human Computer Interaction (HCI).

We have developed a static hand gesture recognition system for the Human Computer Interaction based on shape analysis. This appearance-based recognition uses modified Fourier descriptors for the classification of hand shapes. Usually systems use two phases: training and running phase during the recognition. A new method is shown that under the running phase of the system users can interactively modify and learn hand gestures by the gesture motion, so they could improve the efficiency of the system. With this interactive learning algorithm our system is able to adapt to similar gestures of other users or small changes of hand posture.

In this paper we demonstrate an effective human-computer interface for controlling the steps of the restoration of old films. Film specialists and artists do not like standard computer devices they prefer natural interfaces like in HCI systems. We will show a gesture recognition application applying these methods in the controlling system of old film restoration.

⁴Hand Recognition Demo can be downloaded from <http://www.knt.vein.hu/staff/licsara/>