PROJECT REPORT

ON

"TELEVISION CONTROL BY IMAGE ACQUISITION AND PROCESSING"

Submitted in partial fulfillment of the requirements for the award of degree of

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IN

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ABSTRACT

Gestures are a powerful means of communication among humans. In fact, gesturing is so deeply rooted in our communication that people often continue gesturing when speaking on the telephone. Hand gestures provide a separate complementary modality to speech for expressing one's idea. Information associated with hand gestures in a conversation is degree, discourse structure, spatial and temporal structure. So, a natural interaction between humans and computing devices can be achieved by using hand gestures for communication between them.

The purpose of this project is to provide a sophisticated Human Machine Interface. This new gesture based approach allows the users to interact with televisions through hand postures as well as gestures. Its efficiency makes it suitable for real-time applications. People who are physically handicapped will also find this system very useful.

The main motivation behind the implementation of this project is in the development of an 'accessory-free control' for machines. We believe that the next technology revolution lies in bridging the gap between the physical world and the real world. Existing technologies are application specific. With the ever-increasing amount of information, the amount of integration required is an enormous task. In addition to this, gesture recognition has rarely been integrated with remote sensing and control. By integrating these two areas, we open up a wide range of possibilities in areas such as security, surveillance and remote control. Hence, we aim to integrate these aspects of human-machine interfacing through our project prototype.