A

Major Project Report II

On

ACTIVITY RECOGNITION USING FINITE ELEMENT METHOD

Submitted in Partial fulfillment of the requirement

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In

(Signal Processing and Digital Design)

Submitted by

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June 2012

DECLARATION BY THE CANDIDATE

June 2012

Date: _____

I hereby declare that the work presented in this dissertation entitled **"Activity Recognition using Finite Element Method"** has been carried out by me under the guidance of Dr. Rajiv Kapoor, Department of Electronics & Communication Engineering, Delhi Technological University, Delhi and hereby submitted for the partial fulfillment for the award of degree of Master of Technology in Signal Processing & Digital Design at Electronics & Communication Department, Delhi Technological University, Delhi.

I further undertake that the work embodied in this major project has not been submitted for the award of any other degree elsewhere.

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CERTIFICATE

It is to certify that the above statement made by the candidate is true to the best of my knowledge and belief.

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ABSTRACT

The motivation behind this project is to develop software for tracking and recognizing the human activity major application in security, surveillance and vision analysis. The developed software must be capable of tracking the human body and recognizing its activity. The proposed method uses the approach for features extraction from the sequences of images. The method describes about the recognition of human activity with the help of change in energy produced by motion of the connected pixels in an image and then we used the support vector machine as the classifier. The proposed technique takes care of the real time implementation of the technique and in qualitative decision making both and shows better results. This technique is capable of understanding the activity. The statistical confidence is higher as compared to the previous techniques because the activity recognition is based upon the features of not just one organ but also on the dependent organs. This method works in real time and is inherently parallel

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