

**DESIGNING, CONSTRUCTING, AND IMPLEMENTING MOUSE POINTER
CONTROL USING PUPIL TRACKER FOR VIRTUAL KEYBOARD AND
MONITORING CAMERA**

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where acknowledgement is made in the thesis.

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ABSTRACT

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By

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The objective of this thesis work is to develop a software to control mouse pointer with pupil tracking to communicate and control device through pupil movement. The pupil tracking is taken from PS3 eye device, which is connected to a personal computer. The pupil tracking is processed using open CV implementation in C++ language in Code Blocks open framework. The result is sent serially to ATMEGA 2560 wrapped in arduino AT MEGA 2560 board. A serial port program from personal computer is used to transmit the signal to a servo motor which is connected to ATMEGA 2560 wrapped in arduino board. The arduino then connected to the monitoring camera, which move, according to the result from the pupil tracker process.

Keywords: Arduino, Codeblocks, Pupil tracker, Pointer Controller, OpenFramework, Monitoring Camera.



DEDICATION

I dedicate this thesis to God, my girlfriend, my parents, my lecturer and my friends



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