A

MINI PROJECT REPORT

ON

Hand Gesture Controlled Laptop Using Arduino

submitted in partial of the requirements for the award of the degree of

**BACHELOR OF TECHNOLOGY**

**IN**

**ELECTRONICS AND COMMUNICATION ENGINEERING**

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ABSTRACT

The purpose of gesture recognition in Computers has always been the minimization of the distance between the physical world and the digital world. The way humans interact among themselves could be implemented in communication with the digital world by interpreting gestures via mathematical algorithm. Numerous ways and algorithms have been proposed and implemented to achieve the goal of gesture recognition and its use in communicating with the digital world. Gestures can be tracked using hand movements, accelerometers and more. This paper deals with the design and implementation of a gesture controlled computer using Arduino Uno with ATMEGA32 processor and a laptop loaded with Windows 10 operating system along with low cost hardware requirements. The system can be broadly classified into two components: The Hardware part consisting of Arduino Microcontroller, the ultrasonic sensors HC-SR04 and a computer, preferably a laptop, and the software part consists of Arduino IDE and Python 2.714 IDLE with PyAutoGUI module installed.

KEYWORDS: Arduino, Gesture, Laptop, PyAutoGUI , Python, Ultrasonic