

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM – 590014.



A PROJECT REPORT ON

“INTERACTION WITH COMPUTER USING VIRTUAL MOUSE AND VIRTUAL KEYBOARD”

Submitted in partial fulfillment of the requirement for the Eighth semester

Bachelor of Engineering

IN

INFORMATION SCIENCE NAD ENGINEERING

Submitted by:

MUTHURAJU BABU V

1SJ10IS058

RAMYASHREE M R

1SJ10IS069

SANJU B

1SJ10IS078

SRIKANTH REDDY B J

1SJ10IS099

Under the guidance of

Internal guide

Prof. G. Nagaraja
Associate Professor, ISE
SJCIT, Chickballapur

External guide

Prof. S . K. Nandy
Convenor, CAD laboratory
SERC, IISc, Bangalore

Carried out at

INDIAN INSTITUTE OF SCIENCE(IISc), BANGALORE



**SRI JAGADGURU CHANDRASHEKARANATHA SWAMIJI
INSTITUTE OF TECHNOLOGY**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING/INFORMATION
SCIENCE AND ENGINEERING

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ABSTRACT

Recent changes in Technology have revolutionized Interaction between the computer world and its applications. The focus of Human Computer Interaction is to provide intercommunication between the user and the computer by making computer easier to the user needs and allowing the user to interact with the information using natural hand gestures related to gesture recognition, Augmented Reality, Computer Vision and Virtual Keyboard. Gesture placed in the gesture database matches for the commands which will be initially trained to be stored using machine learning algorithm. The corresponding commands access the operation from the gestures that is given as an input through colored caps which is identified by the camera connected to a Computer. Camera reads the movement of color marker and communicates the data to a computer that uses gestures as an input to control devices or applications.

As the personal computing industry pursues more user friendly, inexpensive user interfaces the concept of a touch less interface is worthy of inspection. The main idea is to offer users a new and cheap way of experiencing multi-touch capabilities, without the need of expensive hardware or software. All the user needs is a camera, which will track colored markers defined by the user.