**Leap Motion**

*A report submitted in partial fulfilment of the requirements for*

*the award of the degree of*

**B. Tech** in

Computer Science And Engineering

****

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**CERTIFICATE**

This is to certify that the project report entitled **“LEAP MOTION”** being submitted by **Mrinal Sen, Samyak Jain, Pranjalesh Ghansiyal, Bunty Agarwal** in partial fulfillment for the award of the Degree of Bachelor of Technology in Computer Science and Engineering to the DIT University is a record of bona fide work carried out by them under my guidance and supervision.

The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.

Mr. Sarvesh Chandra Shukla Dr. Anil Kumar Gupta

**Assistant Professor**  **Head of Department**

**Computer Science and Engineering** **Computer Science and Engineering**

**CANDIDATES DECLARATION**

We hereby certify that the work, which is being presented in the report/ project report, entitled **Leap Motion**, in partial fulfilment of the requirement for the award of the Degree of **Bachelor of Technology** and submitted to the institution is an authentic record of my/our own work carried out during the period *February-2108* to *April-2018* under the supervision of Mr. Sarvesh Chandra Shukla.

Date: Signature of the Candidate

This is to certify that the above statement made by the candidate is correct to the best of our knowledge.

Date: Signature(s) of the Supervisor(s)

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It is to announce with great satisfaction and feeling of achievement that we have completed our Project entitled “LEAP MOTION”. I take this golden opportunity to acknowledge each and every one who has contributed towards my work and motivated me throughout the project.

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**ABSTRACT**

The leap motion is a technology which detects movements of hands and fingers. It automatically detects movement of hands, fingers and tracks the motion of these objects as long as they are in the field of vision of the device. The data is collected by a small service program (delivered with the motion) and is made available to any program using a simple API. The leap works on Linux, Windows and Apple MacOS. The leap motion device acts a camera, and continuously takes stereographic images of the area in front of the sensor. The images are scanned for hands, fingers. This is done continuously and as each image is analysed the result of the analysis are presented to a client program as a Frame. The Leap Motion can also detect gestures.

Our project controls various operations in an application. This project is set to enhance the ease of use. The world has moved from keypads to touch screens and then to gesture controls and voice commands. The end user likes to have everything at the tip of their fingers and to provide this functionality we are using this project for incorporating hand gestures in a budget oriented laptop/computer.

The scope of the project is to control applications using simple hand gestures. The basic requirement is an arduino toolkit and ultrasonic sensors and language used will be python. We aim to cover gestures like moving hand towards the sensors for fast forward in VLC application and also scroll up a web page depending on the application running at that time.