**GESTURE CONTROLLED MOUSE POINTER**

#### A PROJECT REPORT

###### Submitted by

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###### Under the Guidance of

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### BONAFIDE CERTIFICATE

Certified that this project report titled “**Gesture Controlled Mouse Pointer”** is the bonafide work of **“Ansh Vinod Motwani [Reg No: RA1611008010661], Ayush Roy [Reg No: RA1611008010641] and Saumya Awasthi [Reg No: RA1611008010414]** who carried out the project work under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion for this or any other candidate.

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#### ABSTRACT

#### Our project deals with controlling the mouse pointer and carrying out the functions of a trackpad with the help of hand gestures. Moving our hand would allow us to change tabs, double click an item, drag objects and carry out other simple tasks. In existing research, an external camera is used for better image capture and detection but that makes is uneasy to use in everyday life. Using an external camera also requires extra battery usage and has an added hardware cost. Since our software will be using the computer webcam, there would not be any extra cost. Our software can make everyday life very easy. If the computer is kept at a distance, the person would not have to get up but instead can interact with the computer by just gesturing with their hands. It could greatly help partially paralyzed or bedridden people who cannot walk or get up to use their computer kept at a distance. There would no longer be any need to keep laptops on the bed while using it as it is harmful to keep the laptop on bed. This problem faces lots of issues as mostly those solutions cater to only a few gestures and for the remaining gestures there is a need to use the mousepad. But we plan on making a complete replacement for a mouse which will not require any mouse input. The one thing which would be unique about our project would be its precision. We will design it in such a way that the user can easily point to buttons and select anything on the screen without having trouble in moving the pointer to a very small distance. Our pointer will also be having mouse assist which will be helping the user to effortlessly maneuver the pointer. We aim to create a robust software which could be used in everyday life and does not remain as just a project. It would be as user friendly as possible and we will make it in a way that people can use it.

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