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**IIT BOMBAY**

### **RECOMMENDATION FOR MR. ABHINEET**

Abhineet is an undergraduate student in the Department of Electrical Engineering at IITB. This is the most competitive program of its kind in India. Making it to this program attests to very high levels of diligence and quantitative aptitude. His academic record here speaks for itself.

Abhineet approached me in his 2<sup>nd</sup> (sophomore) year, inspired by courses in electronic devices and nanoelectronics. to work in an area of interest for me, namely quantum biomimetic devices. I have come to know him quite well over the last 6-7 months by virtue of supervising the undergraduate research project he took up, on inelastic quantum tunnelling based olfactory sensing.

Firstly, I could see that Abhineet is highly inquisitive and he sought out the relevant literature extensively.

The research involved is, in one part, the design of the sensing element drawing on concepts of Quantum Transport. Abhineet had to learn substantial physics beyond what he had already done, and then apply it. He proved to be adept at picking up new physics concepts as well as developing Python based codes for the same. This also included some understanding of numerical methods.

In another part, the project involves the design and realization of sensor instrumentation. I was pleasantly surprised that Abhineet enthusiastically started working on this aspect as well.

Importantly, Abhineet has worked very well with senior students and postdocs – leveraging their help to advance his knowledge and understanding. I also found his spoken communication and presentations lucid and smooth.

In summary, I strongly recommend Mr. Abhineet Agarwal, in the light of his background, ability and skills. Please do not hesitate to contact me if you would like any further information.

Sincerely,

24<sup>th</sup> January, 2025

(Swaroop Ganguly)