**UG Project Mid-Term Evaluation**

**Development of a Mobile Application for Understanding Intensity Patterns in UCNP Emissions.**

The goal of the project is to build a mobile application with cloud backend and data storage which will help in detection of diseases with use of upconverting nano particles(UCNPs). When electro-magnetic radiation falls on UCNPs it takes two or more photons of low energy radiation and emits out radiation of high energy which in our case is in visble spectra. Our project is to build a mobile application which uses the photo sensors present in the mobile device to find the intensity of various wavelenghts of the visible spectra emitted by the UCNPs. The intensity is then plotted against wavelength to find out which wavelength of light shows the maxima and also average wavelength is found. This data is then sent to cloud storage for future references and could be used to train machine learning algorithms to determine an unknown sample.

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**Remarks:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**