Project Summary:

Battery health Prognosis and Explosion Prevention in EV

The fuel prices are at an all-time high due to global demand. A great alternative to conservative vehicles is electric vehicles which are popular these days. However, in India due to the tropical climate these electric vehicles especially electric bikes have suffered battery explosions. This can be dangerous to the user and may defame the EV manufacturer. Hence a system Is required to keep track of the battery health of the EV and alert the user for battery maintenance. This project aims at providing a viable solution to monitor battery health and prevent the above-said accidents. The first step is to identify metrics of the battery which are related to battery life. The next step would be to deploy a sensor system to capture the readings of various metrics. Since space is constrained in an electric bike, the readings will be processed in the cloud. The user's mobile can act as a base station. The processing will be a machine learning model which will essentially predict a health metric for the battery. The health metric as such will be identified and used in the following phases of the project. The health metric will be used to alert the user in case the battery's health is critical. Hence may save the person's life. From the company's perspective, all the data will be stored in their cloud. This may be used for improvements in the product.