Project Title: Smart Location Pointer

Abstract:

The evolution of workplaces and homes over a past few years has been enormous. The smart building of all sorts of shelters has worked to get the most out of that space. Deployment of IoT algorithms and machine learning in smart building to increase work efficiency, predictive maintenance, save the environment and minimize energy waste, track activities and build health and safety against environmental changes have expanded boundaries of the emerging technology. Our model can be used by architects and engineers while working on sites to measure the humidity, temperature, CO2 andlight intensity to predict the suitability of locating a particular section of the building or a house at the piece of land. This escalates the scope of smart construction and let us consider major but highly ignored factors while constructing a new place.

The objective of building a “Smart Location Pointer” is to contribute in the designing of homes, offices, restaurants and all other accommodations and workplaces differently according to their unique needs. Hence, we have created a mobile application where the user needs to enter the data of each of the feature i.e. co2, humidity, light, temperature and based upon these values, the model would suggest which room it should be. Hence, we have deployed the machine learning model trained using Softmax Regression which does multi-class classification and based upon the values obtained by each of the IOT-sensor, it would suggest the best possible room it should be. Now, the data on which we have Our model is trained using a set of data of five rooms. The application can be used at construction sites or prospective places for construction to predict the suitability of locating a particular room like washroom, bedroom, conference room etc.