# *ABSTRACT*

***"The world has enough for everyone's needs, but not everyone's greed."***

***~ MAHATHMA GANDHI***

*Food scarcity and hunger are the early and major problems that mankind had to face in their journey for existence, every meal was fought and won. From fire to automated vehicle human beings had found a solution to almost all challenges that had come across their way. But world hunger still remains as an insurmountable obstacle in their path. The basic need of a living being is to get nutritious food and water. According to UNICEF, 22,000 children die each day due to poverty. And they die quietly in some of the poorest villages on earth, far removed from the scrutiny and the conscience of the world. Why are we still battling world hunger? The only answer is ineffective resource distribution and management. According to the United Nations Food Waste Index Report 2021, it may come as a shock that 69 lakh kg of food is thrown away uneaten every day in Mumbai. If we could accurately predict the amount of raw materials and thereby the amount of food through everyday analysis we can minimise the quantity of food waste drastically and thereby provide for the needy.*

*Supervised Machine Learning has lately proved to be one of the most prominent and efficiently improving methods comprising of several solid techniques and algorithms for the classification, manipulation, and reorganization of databases using the concepts of recursive learning. We aim to predict the amount of food and predict their qualities in domains like community kitchen, restaurant, school/collage mess and all of the food industry by utilizing supervised machine learning.*

***Quantity of food produced :***

- *we intent to build a supervised machine learning model, trained using a general dataset regarding the demand for food and can predict the quantity of food required for a given set of variables*
- *the trained model can later be fine tuned using the data of a specific location so that the produce more locally accurate results*
- *the algorithm used for learning is based on naive bayes and logistic regression classifiers*

***Quality of food produced :***

- *predict the qualities and quantity of certain consumer food products using the supervised machine learning approach as the basis for the classification purposes*
- *data-sets obtained from the Kaggle repositories*
- *pre-processing implementation and the outcome prediction process to he formulated using the Scikit-learn package embedded in the Python programming language*
- *aim would be to develop a model that could predict an accurately good amount of ingredients*