Project Title: Predicting Agricultural Outcomes: The Role of Climate, Economics, and Land Use

Project Members:

Sai Ram Oduri (A20522183) - <u>soduri@hawk.iit.edu</u> Mouhammad Bazzi (A20522180) - <u>mbazzi@hawk.iit.edu</u> Ramesh Chandra Reddy Musilanna (A20521309) - <u>rmusilanna@hawk.iit.edu</u>

Designated Leader: Sai Ram Oduri

Project Description:

The project primarily focuses on the study of impact of geo-economic factors, such as climate change, economic conditions, soil temperate, degradation, fertilizers, etc. on agriculture production. The project uses a linear regression model to analyze various datasets that contain information about these factors and their potential impact on agriculture land and production across the Earth. The goal of the project is to understand and analyze the relationship between these factors and to make predictions about the future of agriculture production in different countries. This study can provide valuable insights for policymakers, farmers, and other stakeholders in the agriculture industry, helping them make informed decisions about land use practices, investment, and resource allocation.

Application Subject Area: Agriculture Sector

Data Sets:

 $\underline{https://www.kaggle.com/code/lukalxn/analysis-prediction-of-gross-agricultural-product/data}$

https://www.kaggle.com/code/sevgisarac/climate-change

https://www.kaggle.com/datasets/berkeleyearth/climate-change-earth-surface-temperature-data

https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators

https://www.fao.org/faostat/en/#data/FShttps://www.fao.org/faostat/en/#data/FS

https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators

References:

https://ourworldindata.org/environmental-impacts-of-food#research-and-writing

https://www.fao.org/home/en

https://ourworldindata.org/environmental-impacts-of-food

https://www.worldbank.org/en/home

https://datatopics.worldbank.org/world-development-indicators/themes/environment.html