QUESTION

A twenty (20) minute video presentation (accompanied by an abstract in KiSwahili,

English, one indigenous African language) on any invention or innovation in his/her

field of study.

**Machine Learning Innovations Reshaping Agriculture**

**Abstract**

Machine learning has helped in transforming agriculture into a more efficient,sustainable and productive field. Where farmers can be able to make informed decisions, mitigate risk and optimize resource usage.

This presentation focuses on how machine learning is applied in agricultural field which includes

1. Crop monitoring

Machine learning algorithm has helped in analyzing drone data and sensors to monitor crop health and assess the crop yield potential

1. Crop yield forecasting

Machine learning uses historical data such as weather patterns, soil condition and crop characteristics to forecast future yields.

1. Weed detection

Machine learning process images from drones to identify and classify the weeds

1. Pest and disease detection

Machine learning algorithm trained on historical data can be used to predict the pest and disease outbreak on crops