UNIVERSITY OF WESTMINSTER

INFORMATICS INSTITUTE OF TECHNOLOGY

INFORMATICS INSTITUTE OF TECHNOLOGY, SRI LANKA

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"CropRec" - Crop Recommendation System

A Dissertation by

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Abstract

One of Sri Lanka's biggest livelihoods and a major economic contributor is agriculture. Rich with a tropical atmosphere, Sri Lanka is an ideal island to contribute our agricultural resources to a global scale. With all of these factors in mind, Sri Lanka still has a threat to food security on major crops like Rice. Since the past few years, predicting weather for cultivation for planning has been challenging due to changes of weather patterns as effects of global warming.

Although there has considerable amount of research in the domain of agriculture and weather prediction, in Sri Lanka those two haven't been merged together effectively to provide predictions to the attached stakeholders like farmers. The already available literature is only serving a specific scenario.

CropRec is a system that uses large amounts of weather data over 15 years to find a pattern and predict the future weather patterns. The outcome of this process is taken to recommend a suitable crop. This recommendation is sent through a SMS alert to the farmer within a time period helping them to plan their cultivation based on the changing weather patterns.

The system was implemented and tested using qualitative and quantitative approaches, evaluation was done on the overall system and completed effectively.

Keywords:

Crop Recommendation, Machine Learning, Weather Prediction