



This is **BLACK CODES** Representing

RAJALAKSHMI INSTITUTE OF TECHNOLOGY



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# REAL TIME CROP MONITORING USING ARTIFICIAL INTELLIGENCE

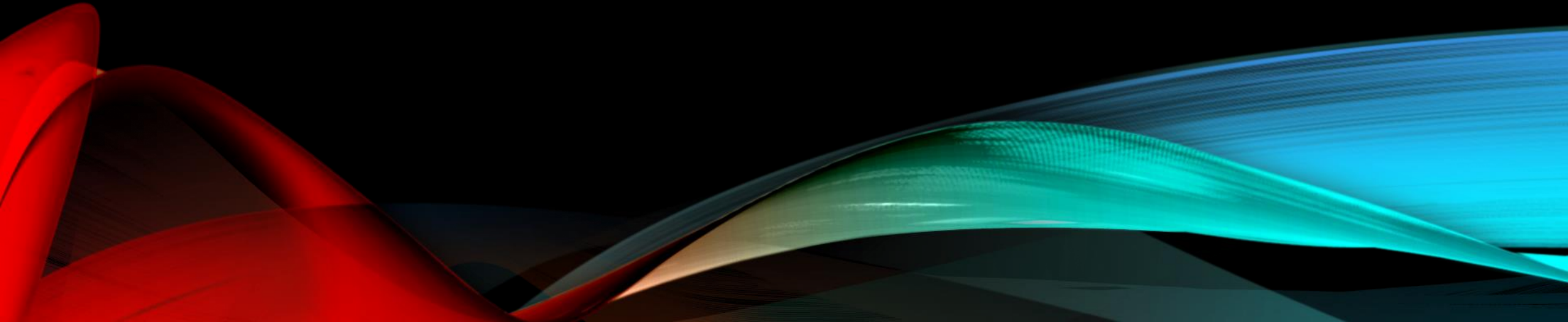


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# **PROBLEM STATEMENT**

DEVELOP A REAL TIME LAND USAGE MONITORING  
TOOL USING SATELLITE DATA AND ARTIFICIAL  
INTELLIGENCE



## ABOUT

This project demonstrates the capabilities of field monitoring ,crop growth analysis and yield prediction with the help of satellite imagery .



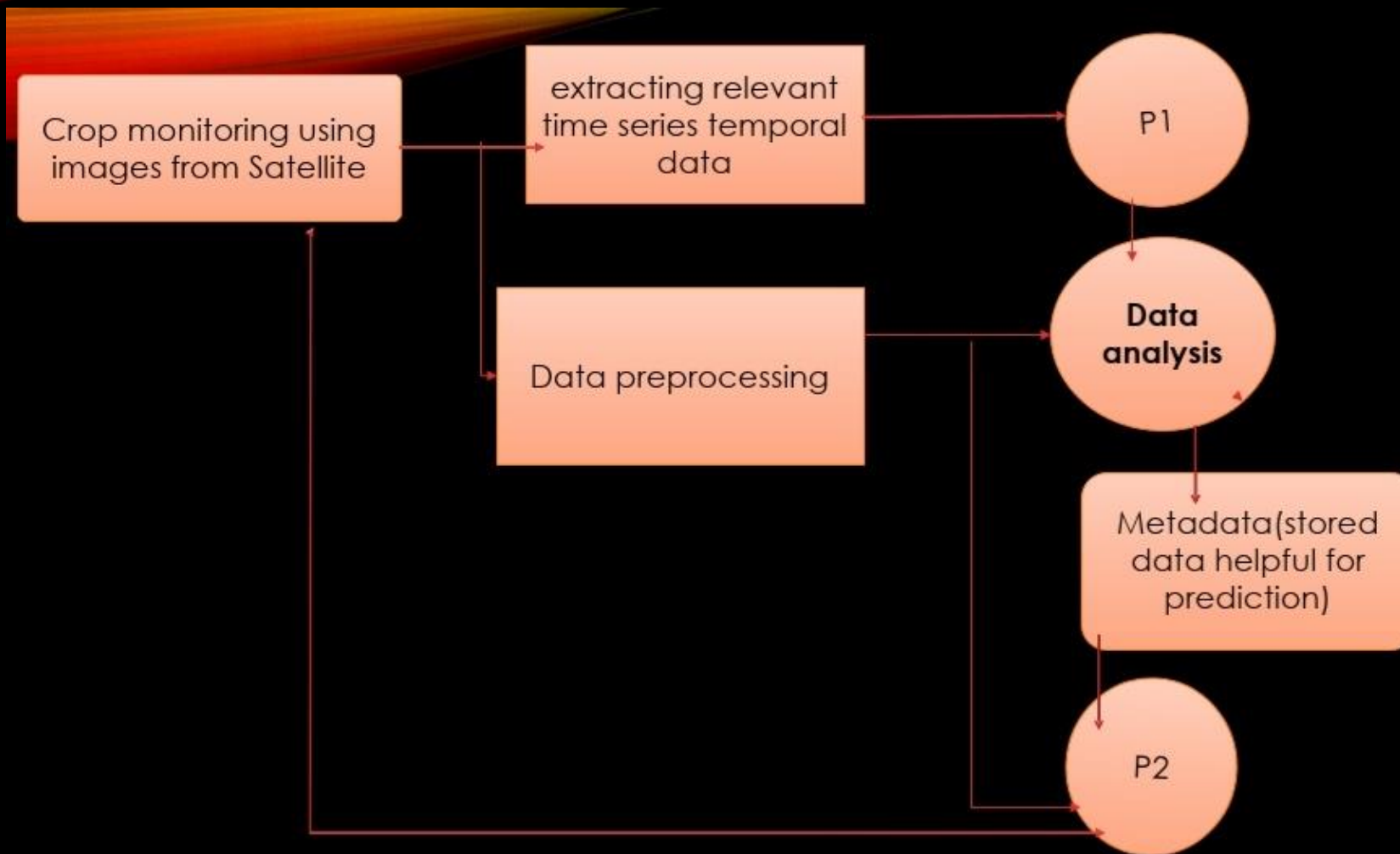
# ABSTRACT

- The influence of natural process and its unpredictability has caused majority of the agricultural crops to be affected in terms of their production and maintenance.
- Forecasting or predicting the crop yield well prior to its harvest time would assist the strategists and farmers for taking appropriate measures for mercantilism and storage.
- Correct prediction of crop development stages plays a crucial role in crop production management
- The accuracy of the crop yield estimation for the varied crops concerned in strategizing and planning is deliberated to be one in every of the utmost important problems for scientific discipline production functions.

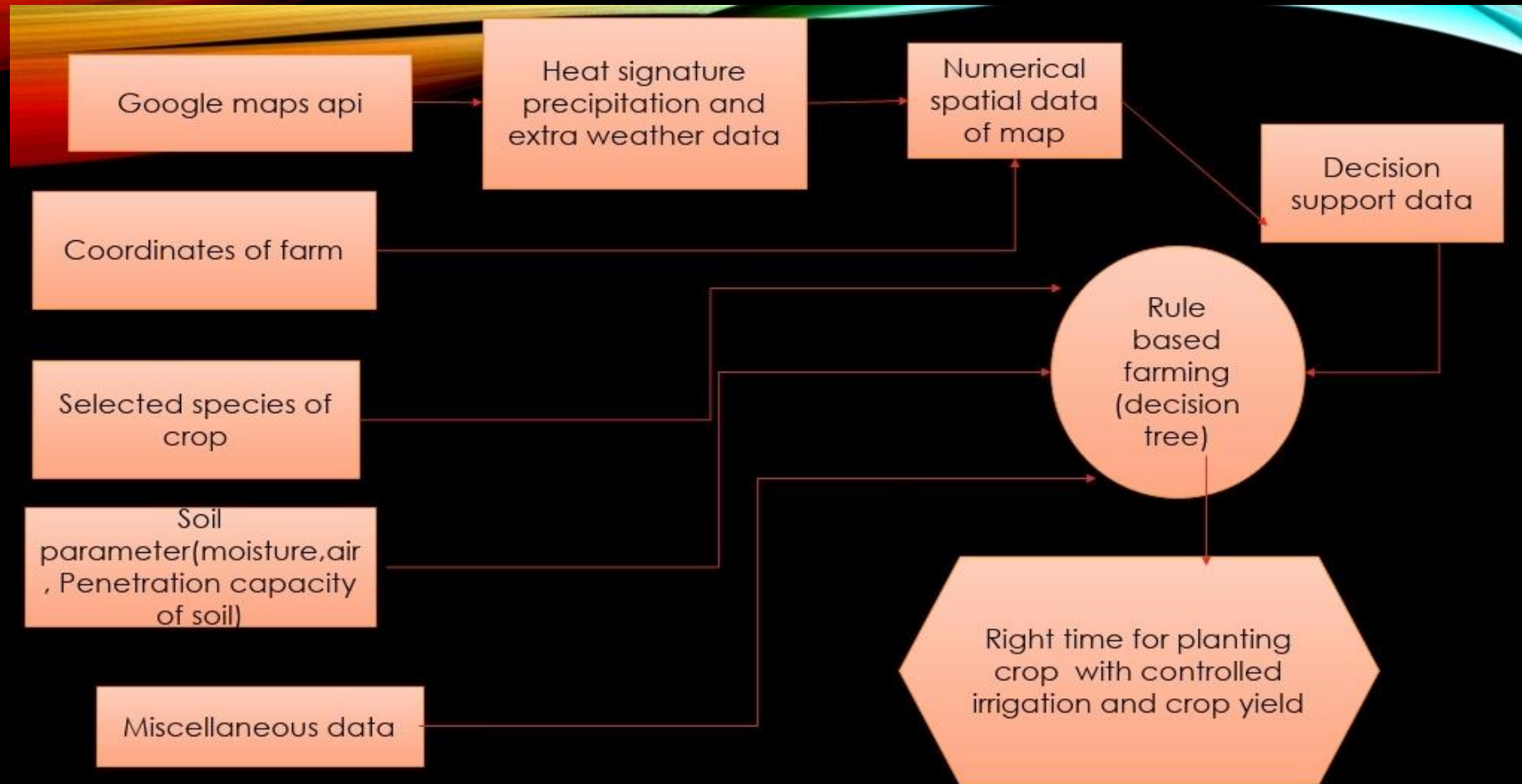
- Crop monitoring and forecasting of crop yields for the proposed system are going to be done out via satellite pictures with low resolution.
- The combination of in depth and extended topographic coverage and its high temporal frequency build these pictures an appropriate choice for the prediction of crop yields and these pictures are trained using artificial intelligence.
- The paradigm distinguishes between crops, the infrared and temperature bands of pictures taken throughout apex season contribute the foremost to the crop prediction.
- The main aim is to match the output of crops to verify whether or not the results are correct for crop yield forecasting then these outputs are going to be displayed in the dashboard for higher read
- This project demonstrates the capabilities of field monitoring, crop growth analysis and yield prediction with the help of satellite imagery.



## USE CASE



**Part 1: For prediction yield**



Part 2: For suggesting methods for increasing yield

## EXTRACTION AND TESTING STAGE

- the first stage is Extracting data. And now we have performed 5 stages of test

1

Test 1 we classified each pixel of the map into 3 stages (ie) water, vegetation, and constructed area.

2

Test 2 detects the Crop using polygon.

3

Test 3 We have Predicted the crop Yield using the NDVI spectral value.

4

Test 4 where we classify urban region, vegetation, fields and water bodies Here we classified between vegetation and fields as well.

5

This is the final stage of test here we Clustered multiple region depending on their respective bands value



**THANK YOU**