# RICE CROP DISEASE DETECTION

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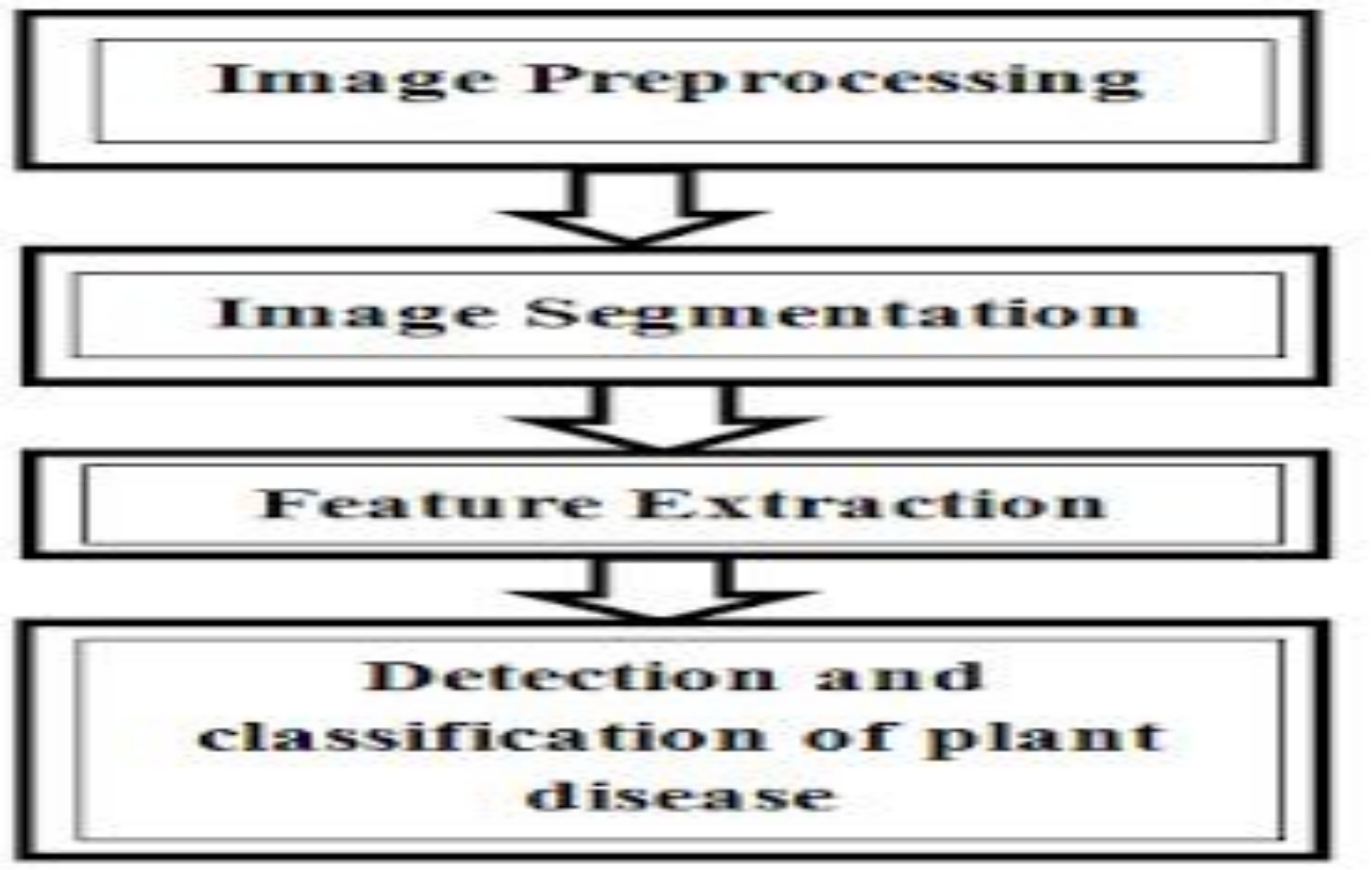
# ABSTRACT

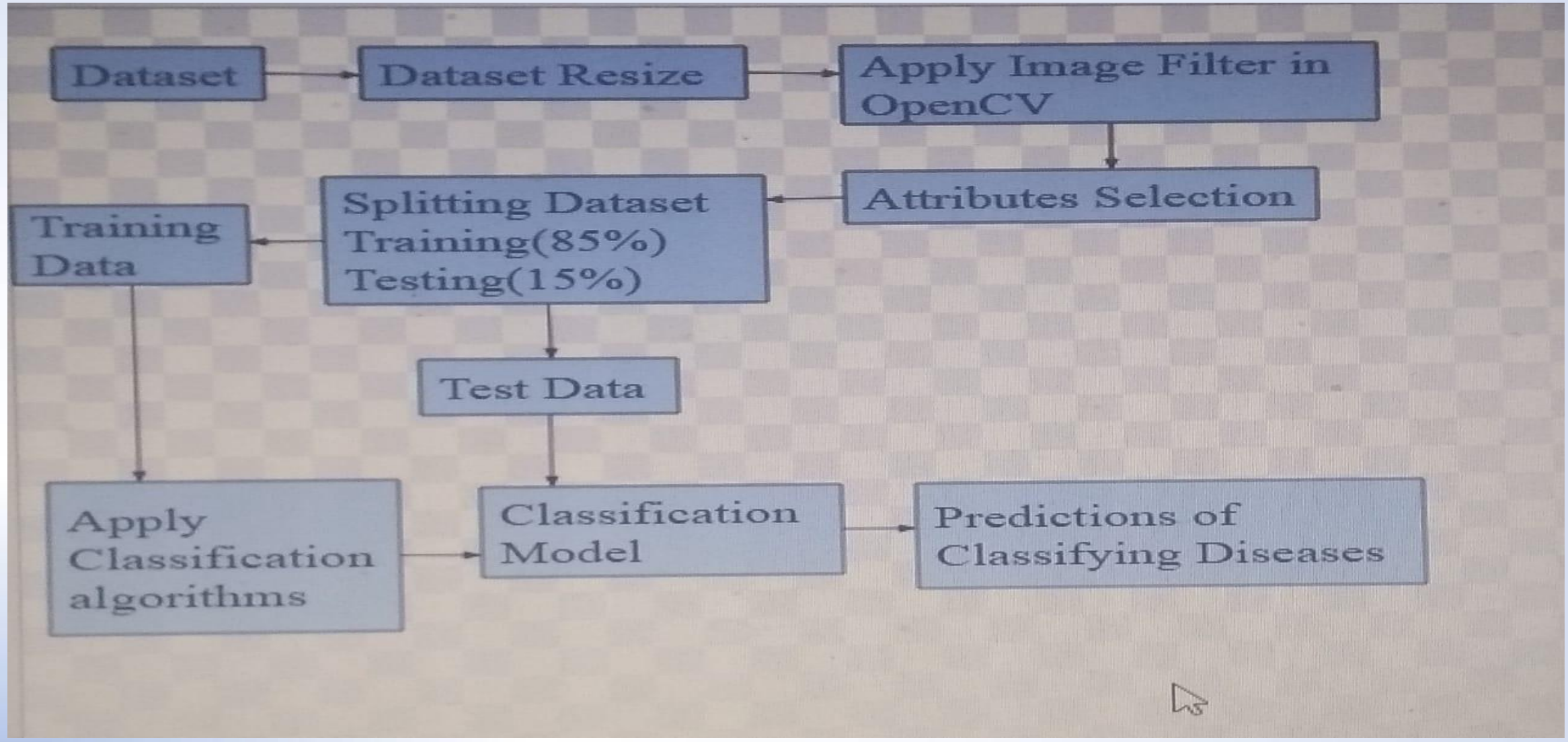
Rice leaves are affected by various kind of diseases. Rice leaf diseases can be detected based on image processing techniques. Diseases are classified in rice plants by analyzing photographs of rice leaves. The method uses image processing algorithms to detect leaves and likely disease-induced lesions in the leaves.

Attributes are computed based on the dimensions of leaves and lesions, the numbers and shapes of lesions, as well the color characteristics of lesions and intact portions of leaves. These attributes are used to build classification model and this model is used to detect the affected leaves.

# DESIGN ARCHITECTURE



# BLOCK DIAGRAM



# TECHNOLOGY STACK

- Python 3.6
- Libraries Needed:
    - OpenCV
    - Tensorflow
    - Keras
    - Numpy
    - Matplotlib

# REFERENCES


1. Chawathe, S. S. (2020). **Rice Disease Detection by Image Analysis**. 2020 10th Annual Computing and Communication Workshop and Conference (CCWC). (Base paper)
2. Pukkela, P. and Borra, S., 2018. **Machine Learning Based Plant Leaf Disease Detection and Severity Assessment Techniques**: State-of-theArt. In Classification in BioApps. (Springer)
3. Zhang, X., Qiao, Y., Meng, F., Fan, C. and Zhang, M., 2018. **Identification of Maize Leaf Diseases Using Improved Deep Convolutional Neural Networks**. (IEEE)

4. **Dataset** : Images are collected from **ANGRAU RARS LAM**

# Thank You