VIVA Institute of Technology
Computer Engineering

An Innovative Approach For Fruit Ripeness Classification

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MOTIVATION

- Various techniques for fruit ripeness detection have been used in the past, but lower accuracy rate is achieved.
- Manual classification leads to discrete opinions and also its time consuming.
- The system proposed is inexpensive and automatic method to predict ripeness of strawberry fruit without manual experts.

FEATURES

- Reduces human efforts.
- Reduces discrete opinions.
- Time required is less.
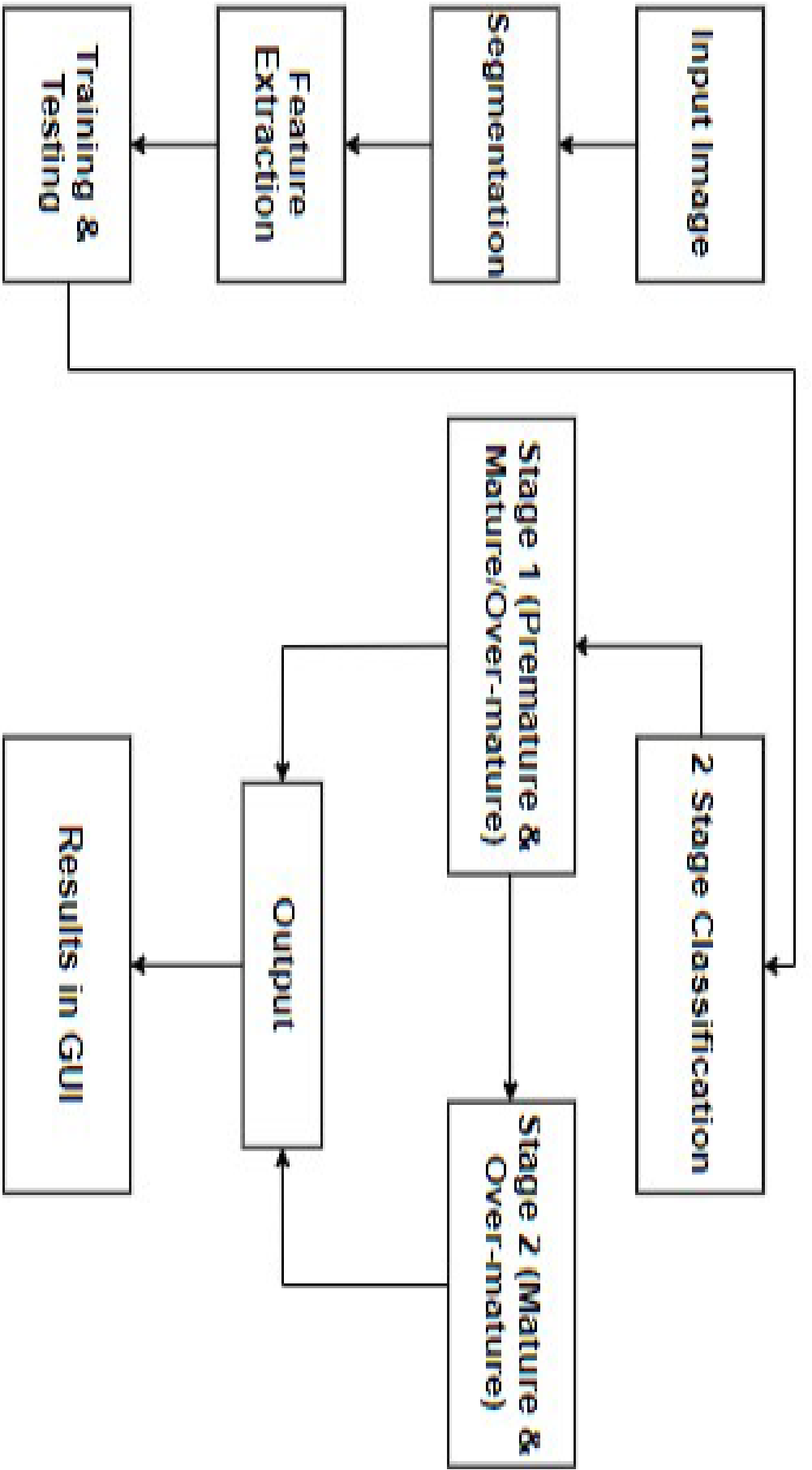- System achieves 91.6% accuracy.

FUTURE WORK

- For further improvement in accuracy, a vibrating conveyor belt can be implemented to provided view from all sides

TECHNOLOGIES

python

K Keras

SYSTEM ARCHITECTURE

Input Image → Segmentation → Feature Extraction → Training & Testing

2 Stage Classification

Stage 1 (Premature & Mature/Over-mature)

Stage 2 (Mature & Over-mature)

Output → Results in GUI

accuracy — train_acc vs val_acc

loss — train_loss vs val_loss

RESULT

unripe

ripe

damaged