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Course Code: INT319
Semester: VII

IT WORKSHOP SCILAB/MATLAB LABORATORY

Course Objectives:
This course will help the learner to develop applications using machine learning techniques such as supervised and unsupervised learning for classification and clustering.

1. Implementation of Histogram Mapping and Equalization.
2. Implementation of image smoothening Filters.
3. Implementation of image sharpening filters.
4. Visualize dataset using plotting methods.
5. Implementation of image morphology techniques.
6. Implementation of color image processing.
7. Implementation of thresholding methods in medical image segmentation.
8. Implementation of clustering methods in medical image segmentation.
9. Implementation of edge detection methods in object identification.
10. Computation of statistical features such as mean, standard Deviation, correlation coefficient of the given Image
11. Develop a GUI for fruit/vegetable classification.
12. Implementation of deep learning techniques for image classification.

COURSE LEARNING OUTCOMES
Upon successful completion of this course, the learner will be able to:

CO No.	Course Outcome	Knowledge Level
1	Understand MATLAB commands, toolbox and functions	K2
2	Illustrate the image enhancement techniques	K2
3	Analyze the dataset using various plotting methods	K4
4	Demonstrate the use of image segmentation techniques	K6
5	Understand and apply the classification methods	K3
6	Develop applications for real time problem solving	K6