TREE LEAF IDENTIFICATION THROUGH DIGITAL IMAGE PROCESSING

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In this paper, the researchers demonstrated the development of the system that gives users the ability to identify trees based on photographs of the plant’s leaves taken with a digital camera. At the heart of this system is a modernize process of identification, so as to automate the way of identifying the fruit trees through leaf image and digital image processing. The system used the algorithm Log of Gaussian, Edge Detection, Binary Image, RGB Color Grayscale Image to acquire the physical parameter of the leaves such Skewness, Maximum Pixel Value and Gradient. The output parameters are used to compute well documented metrics for statistical, textural, and shape. Based on the study, the following conclusion are drawn: The system can extract the physical parameters from the leaf’s image that will be used in identifying fruit trees. From the extracted leaf parameters, the system provides the statistical analysis and general information of the identified leaf. The used algorithm can organize data and information to useful resources.