A Distinctive approach for Classification and Identification of Peanut Pods Variety using Convolution Neural Network

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ABSTRACT

Peanut is one of the significant crops in the peanut market and industrial use. In feature, Reports articulate that the situation holds major share and increases at a high rate worldwide. The quality of peanut plays a vital role in the trade-off; Peanut pods are treated as an essential feature in quality identification. Consequently, researchers proposed an extensive range of techniques to recognize the quality, variety, defects and many more. Deep learning remains an emerging technique and applied in various fields for better performance. Recent studies prove that the Convolutional neural network (CNN) outperforms in image processing. This paper contributes that the peanut pods classification and identification system by applying feature extraction algorithms and trained using CNN. The data set of peanut pods (images) collected from PeanutBase and classified into four categories. The proposed system has been implemented in Matlab R2019a and the results show that our proposed system is feasible and effective. This article provides the accurate classification and identification of peanut pods, furthermore defected pods are identified.