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## Abstract

Feature selection plays an important role in pattern recognition. The better selection of a feature set usually results the better performance in a classification problem. This work tries to select the best feature set for classification of rice varieties based on image of bulk samples using imperialist competition algorithm. Imperialist competition algorithm is a new evolutionary optimization method that is inspired by imperialist competition. Results showed the feature set selected by the imperialist competition algorithm provide the better classification performance compared to that obtained by genetic algorithm technique

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## **Index Terms**

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## **Keywords**

Imperialist competition algorithm   feature selection   bulk rice classification   support vector machine