Klasifikasi Jenis Jamur Menggunakan Algoritma *Decision Tree* J48

(*Classification of Mushroom Species Using Decision Tree J48 Algorithm***)**

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ABSTRACT

Various types of mushrooms are easy to find around the residence. These mushrooms are generally macroscopic in size which makes it difficult for people to distinguish between consumption and poisonous mushrooms. This study aims to help classify the types of consumption and poisonous mushrooms. There are 22 physical characteristics (attributes) used to determine the type of fungus. All attributes will be selected using Principal Component Analysis (PCA). The resulting standard deviation value for each attribute in the form of ranking from highest to lowest value. Then, 3, 5, 8, 10, 15, and 22 attributes were selected based on the PCA ranking order to be classified with the J48 decision tree. There are 6 decision tree models from the classification process that are tested using confusion matrix. After going through the testing process, the decision tree model without attribute selection has an accuracy rate of 88%. While the decision tree model with 3 attributes has an accuracy of 69%, 5 attributes have an accuracy of 86%, 8 attributes have an accuracy of 81%, 10 attributes have an accuracy of 78% and 15 attributes have an accuracy of 75%.

Keyword*: mushrooms, consumption, poisonous, Principal Component Analysis (PCA), decision tree J48*