

## **ABSTRACT**

### ***A WEB-BASED EXPERT SYSTEM FOR WEB-BASED EXPERT SYSTEM FOR ROBUSTA COFFEE USING SIMILARITY METHOD***

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*The Sudanese hamlet in Kutasari sub-district is a robusta coffee producer. The problem faced is that disease in robusta coffee plants can reduce crop yields. Many Sudanese hamlet farmers do not know about the disease in coffee plants. Many coffee plants are not managed properly because of the lack of information that coffee farmers know about the types of diseases that attack coffee plants and how to overcome these diseases. If this continues, it will affect crop yields. The problems faced by Robusta coffee farmers must be overcome in an easier way, for example with the help of a coffee plant disease detection system. One example of an automated system is an expert system. An expert system is a computer-based information system that uses expert knowledge to determine decision making. The purpose of this study is to design an expert system to diagnose diseases that exist in coffee plants using the similarity method. In the similarity method, the steps are used to identify similarities or similarities between stored cases and new cases. The case with the highest similarity value is considered the most similar case. Farmers still have the opportunity that crop failure will affect crop yields with poor quality, from this case farmers need support to maintain agricultural conditions, in this case to reduce crop failures. The results of this study are an expert system for diagnosing diseases in robusta coffee plants using the Similarity method. Tests are carried out using the BlackBox method to test functionality for accuracy testing. The results of the blackbox accuracy test carried out obtained a value of 100%.*

**Keywords :** *Coffee Robusta Plants, Expert System, Similarity, Website*