

***Arabica Coffee Bean Damage Identification System  
Using Backpropagation***  
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***ABSTRACT***

*Coffee is one of Indonesia's global plantation commodities, the level of Indonesian coffee production from 2002 to 2017 reached more than 600,000 tons. This has succeeded in making Indonesia one of the largest coffee producing countries in the world. Bondowoso is the 4th largest coffee producing district in East Java after Banyuwangi, Jember and Lumajang. Coffee farmers in Bondowoso still use human labor to determine the quality of coffee beans. This is considered ineffective because it takes a long time, so a system is needed to help identify damaged coffee beans in a short and easy time. In this study the system that has been built using digital image processing and backpropagation neural networks produces a system accuracy of 97.5%.*

***Keywords:*** *Backpropagation, GLCM, coffee, digital image processing*