TIMBER TYPE CLASSIFICATION SYSTEM USING GLCM AND BACKPROPAGATION NEURAL NETWORK METHODS

ABSTRACT

Various types of wood thrive in Indonesia. The benefits of various types of wood are used as raw materials for making furniture. The abundance of wood species in Indonesia is not equipped with equitable utilization caused by the low understanding of the quality of wood species. Utilization of computing technology is expected to help development in the wood industry sector, so that the use of wood as raw material can be evenly distributed. In this study, five types of wood were used, namely coconut, jackfruit, suren, sengon, and mahogany as datasets to be classified using the Back-Propagation Neural Network classification method and the Gray Level Co-Occurrence Matrix feature. The output of this study results in the classification of wood species using the BPNN method with good accuracy values.

Keywords: Wood Classification, Wood Type, Back-Propagation Neural Network, and Gray Level Co-Occurrence Matrix