

**Implementasi *Neural Network* Untuk Sistem Sortir Buah Naga  
(*Hylocereus spp.*)**  
*Neural Network Implementation for Sorting System of Dragon Fruit  
(Hylocereus spp.)*

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***ABSTRACT***

*Dragon fruit is a fruit that's being cultivated in several countries, one of them is Indonesia. In Indonesia, dragon fruit is classified as a horticultural plant that's being cultivated because it grows very well in tropical climates. One of district that is also developing dragon fruit cultivation is Jember, especially in Agrowisata Rembangan. However, the sorting process is still in manually, this has several drawbacks considering the harvest of dragon fruit is very abundant and the number of farmers in Agrowisata Rembangan is still small. So, the farmers has some difficulties between the Different perceptions about the quality of dragon fruit which is caused by the visual limitations of the farmer affected by experience and level of fatigue and the sorting process becomes inefficient. So that this can reduce the quality of the dragon fruit and causes losses to consumers who order dragon fruit who do not get the grade according to their wishes. Researchers try to create a system that can classify dragon fruit based on grade using the backpropagation method which uses morphological features including length, diameter, area, circumference, matric. This study aims to facilitate the process of sorting dragon fruit considering that the sorting process is still inefficient so that consumers will feel the losses directly. Dragon fruit sorting system using Backpropagation obtained the highest accuracy of 63.57%.*

***Keywords*** : *Dragon fruit, Backpropagation, Morphology Featurec*