Segmentasi Bagian Tubuh Tanaman Anggrek Dengan Menggunakan Deep Learning

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Abstract

Image segmentation is an important process in image processing, for further processing. Image segmentation can be used on various objects, one of which is the orchid plant. The orchid plant is a national flagship plant with many species. The country of Indonesia has approximately 5000 orchid species spread from Sumatra to Papua and every year new species are produced. With the diversity of orchid species is an attraction for farmers from all circles. The result of segmentation can be used for the next research as identification of species orchid, identification of growth disorders orchid, and identification of genus orchid to help orchid growers. The segmentation of the landscape of the orchid security can be done with a mask R-CNN. The mask R-CNN is one of the best methods of reporting management for segmenting and object detection. To find out the system performance, we will use the value of leverage precision (mAP) as a measure of system success. After testing the best mAP results obtained are 87.39% using the architecture of backboneResnet101 - FPN, epoch 120 and the number of datasets 820.

Keywords: Orchid, Segmentation, Imange Processing, Deep Learning, Mask R CNN