

ABSTRACT

Plant tissue culture is a vegetative propagation technique by growing plant parts, in the form of cells, tissues or organs in aseptic conditions in vitro. The process of tissue started by cutting parts of plants which is going to bred in culture media. Cultured plants are called explant, then divided to determine the cell period of undifferentiated cells, that is callus. Callus continues to grow and bred to be plantlets. The plant intact that has roots, stems and leaves is called a plantlet. The process of determining the plantlets color using sight of the eye and at Agricultural Laboratory of UPN "Veteran" Yogyakarta has one Munsell Color Charts book.

In existing problems, researchers aim to make image processing applications detect plantlet colors. Plants based on Munsell's color chart book using the Euclidean distance method can detect plant colors. Method of development systems used in this research is the waterfall method. This application made to increase the accuracy in determines the color planlet plants. The coding application that used is a programming language C # Visual Studio 2015

Based on the results of research, the success of the color detection process using the Euclidean Distance method is 80%. From the results it can be said a Euclidean Distance method can be used to detect plantlet plant colors.

Keyword : Image processing, Planlet color, *Euclidean Distance*.