## ABSTRACT

Orchid species that exist on earth is very diverse. Their sheer numbers will certainly complicate the experts in the recall. While the needs in various studies, research and development requires the experts to know it. In addition, cultivation and conservation of orchid plants that are currently being encouraged government because of the number of species are increasingly rare, making the introduction to orchids for society in general to be equally important. Therefore made an expert system that can recognize the physical features of plants, so that can be known types of these plants. Not only as a tool for experts, but greater for orchid collectors and the wider community. This expert system made by forward chaining inference method and the certainty factor..

In the face of a rule, users are often confronted with an absolute rule. While in reality a lot of facts whose truth is not absolute. So it is necessary to determine the level of confidence (certainty) of an existing fact. Certainty factor is a method to accommodate the uncertainty of a decision to be taken. In the case of orchid classification, users will input theirs certainty value for each feature, by process then can be decided that a feature could be taken as a parameter or not.

Implementation of forward chaining method is used for rules searching in the classification of orchid plants.

Key word : Forward Chaining method, Certainty Factor and the classification of the orchid plants.