

## **ABSTRACT**

### **APPLICATION OF FORWARD CHAINING AND CERTAINTY FACTOR FOR FACIAL SKIN PRODUCT RECOMMENDATIONS**

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*Facial skin is the most sensitive part of the skin compared to other parts of the skin, so it requires more serious treatment, such as using cosmetic facial care products (skincare). Of course, basic knowledge is needed in choosing skin care products, namely understanding the condition of each skin type and then understanding the types and uses of skincare products. Lack of public knowledge about the types and uses of skin care products can cause damage to facial skin such as breakouts, facial irritation and sensitive skin. Consultation for facial skin diseases has been focused on skin specialists in overcoming the problems of each face, but requires no small amount of money in consultation. Therefore, an expert system is needed that is able to provide recommendations for skin care products according to the user's skin condition. This expert system is designed using a forward chaining algorithm as an inference engine and a certainty factor algorithm to measure the accuracy of the recommendations. The output of the system is in the form of recommendations for skincare products that are in accordance with the selected user's skin condition based on the highest certainty factor value.*

**Keyword:** *expert system, forward chaining, certainty factor, skincare*