

ABSTRACT

Batik is a world cultural heritage originating from Indonesia. The technique to produce batik is by pouring *malam* liquid or candle liquid with the motif desired by the craftsmen. Biodiversity in Indonesia can also be a reference for developing new batik motifs. One of them is by using coral as batik motif.

With the development of the computing world, many methods have been designed to make batik motif designs. One method that can be used to make batik designs with L-systems. L-systems are mathematical theories applied in graphic applications on computers. The main areas for developing the model include fractal generation and realistic plant modeling.

In this final project, Batik Model is produce by Euphyllia Ancora's-type coral with L-systems on Web-Application. The use of the L-systems method to facilitate the making of new batik motif designs. The purpose of this final project is to development of Euphyllia Ancora's coral motif on the application of web-based batik motifs. The result of this final project is the creation of a batik motif design with web-based Euphyllia Ancora coral. In its development several mathematical operations are used to performfunctions, such as producing coral motifs and the backgrounds. The form of coral is formed from 4 nodes that form a circle of flowers. Based on the results of the survey, 100% of the surveyors agreed the coral as one of the development of batik motifs, and 70% agreed that the development of Euphyllia Ancora-type coral-based batik motif was similar to the original coral form.

Keyword : *Batik*, L-systems, Web-Application, Coral, Fractal.