

## ABSTRACT

*The development of fashion industry in Bali is growing and can founded various types of woven fabric that are so sought in community.*

*The woven fabric is songket. Songket is a product of Balinese culture that reflects the Balinese way of life through the ornate motif and contains strong meaning embedded in Hindu philosophy that existed at songket.*

*Bali residents often use songket for a major religious event as well as an official event which had several times the race was held customary fashion Bali that requires wear songket desired by the organizers of the event. A native of Bali is sometimes still difficult to determine the types of songket. Besides Bali residents, foreign and domestic tourists visiting Bali are also very interested in the kind of songket and experiencing the same difficulties. From the problems, the author have an idea to create android application using Gray Level Co-occurrence Matrix (GLCM) and classify using K-nearest neighbor (KNN) such as euclidean distance and city block. The system based on image by calculating the texture features by using feature extraction Gray Level Co-occurrence Matrix (GLCM) then classify using K-nearest neighbor (KNN) is Euclidean Distance and City Block distance.*

*Based on the results of testing the overall system can be concluded that the application can identify the type of Songket Bali fabric. After testing the obtained results of highest accuracy at an angle of  $90^\circ$  with the value orientation  $k = 1$  using the Euclidean distance classification produces the highest accuracy of 77.3% with an average computation time is 19.02 ms.*

***Keyword: Songket Bali, android, GLCM***