

## **ABSTRACT**

*Cataract is an eye disease characterized by the clouding of the lens of the eye, which makes vision blurry. As we get older, the protein in the lens will clot and slowly make the lens cloudy and foggy. This causes vision to be blurred and unclear.*

*Based on the explanation above, the authors conducted a study using the Discrete Wavelet Transform (DWT) method and the Support Vector Machine (SVM) classification to design a cataract classification system. Previous research on the classification of cataracts was done by Rais Zul Ihram in 2018 to get an accuracy of 93.3% using the GLCM method with the classification used was SVM. A similar study was conducted by Rizkia Dwi Auliannisa in 2017 on cataract detection using the Android-based Hough Transform method using K-NN classification and achieving an accuracy of more than 80%.*

*From the test results obtained the best accuracy of cataract classification by 80%. The accuracy is obtained from testing 90 eye images that have a size of 512x512 pixels, at the feature extraction stage the LH subband filter is used in the Discrete Wavelet Transform (DWT) method. A combination of six statistical features is used, namely Mean, standard deviation, skewness, kurtosis, entropy, variance. At the classification stage, the Support Vector Machine (SVM) method is used with the Gaussian kernel, and the One-Against-All (OAA) multiclass division.*  
*Keywords: Cataract, Discrete Wavelet Transform (DWT), Support Vector Machine (SVM)*