**Abstract**

Diabetic Retinopathy is a disorder of the retina as a result of the impact of diabetes on the retinal blood vessels. It is the major cause of blindness in people like age groups between 20 & 60. Since polygenic disorder proceed, the eyesight of a patient may commence to deteriorate and causes blindness. In this proposed work, the existence or lack of retinal exudates are identified using Extreme Learning Machine(ELM). To discover the occurrence of exudates features like Mean, Standard deviation, Centroid and Edge Strength are taken out from Luv color space after segmenting the Retinal image. A total of 100 images were used, out of which 80 images were used for training and 20 images were used for testing. The classification task carried out with classifier extreme learning machine (ELM). An experimental result shows that the model built using Extreme Learning Machine outperforms other two models and effectively detects the presence of exudates in retina.