

# A Study on Segmentation and Feature Extraction of Retinal Images using Fuzzy C-Means Clustering

Dr. J. Jebathangam<sup>1</sup>, Dr. K. Sharmila<sup>2</sup>, Dr. C. Shanthi<sup>3</sup>, Dr. R. Devi<sup>4</sup>

Associate Professor, Department of Computer Science VISTAS, Chennai, Tamil Nadu, India<sup>1</sup>

Associate Professor, Department of Computer Science VISTAS, Chennai, Tamil Nadu, India<sup>2</sup>

Associate Professor, Department of Computer Science VISTAS, Chennai, Tamil Nadu, India<sup>3</sup>

Associate Professor, Department of Computer Science VISTAS, Chennai, Tamil Nadu, India<sup>4</sup>

jthangam.scs@velsuniv.ac.in, shanthi.scs@velsuniv.ac.in, sharmila.scs@velsuniv.ac.in, devi.scs@velsuniv.ac.in

**Abstract:** One of the major problem occur due to diabetes is retinopathy. It should be diagnosed earlier for effective treatment. In the initial stage of diabetes, patient may suffer in the earlier stage of diabetic retinopathy which gives the symptoms of starting of vision deteriorate in retina. This symptoms result to the eye deficiency in any one of the type of retinopathy. But the survey of medical refers that many people get affects by non-proliferative retinopathy and proliferative retinopathy. There are many ways to diagnose this eye deficiency. This process uses the digital image processing for filtering the noise in the image and it can be seen at different angle by using digitization method. Each image can be compressed by using Discrete Wavelet Transform method. The blood vessels are segmented using FUZZY C-Means.

**Keywords:** Diabetic Retinopathy, Fuzzy C-Means, Discete Wavelet Transform

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