**International Academy of Science,
Engineering and Technology**
IASET   Connecting Researchers; Nurturing Innovations

SIGNIFICANCE OF IMAGES AND ALGORITHMS OF IMAGE PROCESSING FOR DETECTION AND DETERMINATION OF DIABETES AT EARLY STAGE

SHAIK. BAJID VALI[1], A. K. SHARMA[2] & SYED MUSTHAK AHMED[3]

[1]Research Scholar, Department of Electronics and Communication Engineering,

Sunrise University, Alwar, Rajasthan, India

[2]Professor & Principal, I. E. T., Alwar, Rajasthan, India

[3]Professor & Dean, SR Engineering College, Warangal, Telangana, India

ABSTRACT

Now-a-days diabetes is the main problem, it is showing impact on human being's organs like eyes, due to this Diabetic retinopathy causes one type of blindness which occurs in the human being at the age of 35 years on wards, Diabetic foot Ulcers is another problem, even it will show the effect on spinal chord also., Now a days, lot of techniques and methods are there to identify this Diabetic disease at early stages by using Fundus and OCT(Opical Coherence Tomography) , wherein images helps to identify Diabetic Retinopathy, the Infrared Red Thermal Images to identify the Diabetic Mellitus. These images will be used with different algorithms, techniques. In this paper, we have approached a method we had discussed to detect automatically and analyze these exudates and hemorrhages, by using the Fundus and OCT images in Diabetic Retinopathy and Thermal IR Images in the Case of Foot Ulcers, which are pre-processed via local, contrast enhancement by using the adaptive method

KEYWORDS*: Diabetic Retinopathy, Fundus Images, OCT Images, Thermal IR Images, Foot Ulcers, Chanvase Algorithm*