

PROBLEM STATEMENT

Diabetic Retinopathy(DR) is a condition that can develop in your eye if you are diagnosed with type 1 or type 2 diabetes. It damages a part of one's eye called the retina, which is the tissue that lines the back of one's eye. Signals transmitted from the retina to the brain allow one to see. High blood sugar levels due to diabetes cause damage to its blood vessels. This initially induces partial vision loss and over time one can lose their eyesight completely. The good news is that, when the symptoms of the patient are discovered in the early stages, with proper treatment one can prevent further vision loss. So it is very important for us to detect diabetic retinopathy in its early stages and prevent the patient from further damaging their eyesight. Hence, we propose a solution wherein if the fundus image, an image which displays the interior surface of the eye, is available, this problem can be easily detected by running a machine learning or deep learning model which can predict the presence of Diabetic Retinopathy in the early stages.