

## PROJECT TITLE:

Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy.

## TEAM MEMBERS:

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## PROBLEM STATEMENT:

Diabetic Retinopathy (DR) can cause abnormal blood vessels to grow out of the retina and block fluid from draining out of the eye. This cause a type of glaucoma ie. Vision loss and blindness .Early detection is important to prevent permanent vision loss.

## EXISTING DIAGNOSE METHODOLOGY:

Diabetic retinopathy is diagnosed with a comprehensive dilated eye exam.

This is a high time consuming and cost consuming process and prone to misdiagnosis unlike computer-aided diagnosis systems.

## CAUSE:

Diabetic retinopathy is a complication of diabetes, caused by high blood sugar levels damaging the back of the eye which may lead to loss of vision permanently

## STAGES:

Diabetic retinopathy has some symptoms of spots or dark string floating in the vision, blurred vision, fluctuating vision. It have been classified into four stages mild, moderate, nonproliferative and proliferative.

## EFFECTS:

Vision disorder, blurred vision, distorted vision will occur. This problem occurs commonly for Diabetic patient.

## OBJECTIVE:

To provide a testing method for diabetic patient using AI to detect the Diabetic Retinopathy caused due to diabetics at its early stages accurately to avoid complications or permanent blindness at later stages.

