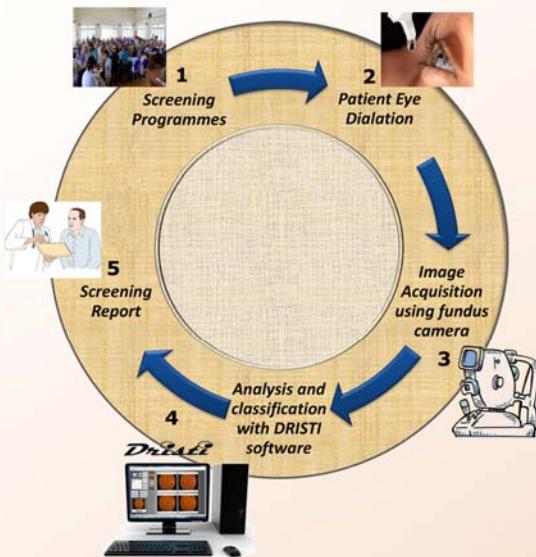


DRISTI

Diabetic Retinopathy Identification Software for Timely Intervention

Diabetic Retinopathy (DR) is the damage caused to retina by complications of diabetes which can eventually lead to blindness. As per the WHO statistics, India is home to 69 million diabetic patients, of which, more than 17% have some degree of DR. Proper and systematic screening for DR have been shown to be effective in prevention and management of DR. However, in developing countries like India there is an enormous disparity in ratio between trained ophthalmologists to patients which makes screening programs less effective. Computer Aided Detection can play a pivotal role in addressing prevention of avoidable blindness by increasing screening efficiency of DR.

DRISTI, using quantitative image analysis algorithms, analyses retinal fundus images for DR lesions and directs DR suspicious cases for detailed ophthalmologist's review. Most of the DR negative cases are screened out without ophthalmologist's intervention.



Workflow of DRISTI

Features

- Automatically classifies retina as either **Non-DR** or **suspicious of DR**.
- Only cases having suspicion of DR need ophthalmologist's review.
- Patient prioritization based on **automated severity scoring**.
- Increase **screening efficiency** by up to **78%**.
- **Real-time image quality notification** for re-imaging.
- Detects retinal pathologies like **micro-aneurisms, haemorrhages, exudates** and **cotton-wool-spots**.
- **Intuitive GUI** for automated analysis of image level, patient level and patient batch.
- **Systematic storage** of patient details and analysis results.

