CLARITY IN GOVERNANCE HERALDS

CLEAR VISION FOR PEOPLE

TAMILNADU

Early detection and removal of cataract can help an individual retain proper vision. People from the poor strata often can't avail the opportunity for an early warning and cure because screening for cataract can only be done by trained medical professionals.

Cataract happens when the eye's natural lens becomes cloudy and there is beginning of disruption in the vision. If not treated at the right stage, it might lead to blindness. Cataract is the leading cause of blindness for more than 70%, in people above fifty years in India.

With only around 12,000+ ophthalmologists in India, cataract screening drives becomes a difficult task especially in the rural areas. Unfortunately, several cataract cases go undetected leading to avoidable blindness. The Tamil Nadu Government rose up to the need to detect and correct Cataract on a mission mode.

THE DIGITAL GOVERNANCE MODEL FOR CLEAR VISION

The e-Paarvai app launched for the mission aimed to impact the lives of more than 2 Cr plus residents of Tamil Nadu. The biggest beneficiaries of this app are senior citizens in the rural areas of Tamil Nadu as they do not have access to quality eye care screening.

EXECUTION STEPS

The e-Paarvai app is currently being used by the Tamil Nadu State Control Blindness Society (TNSBCS) to screen citizens in more than 30 districts in Tamil Nadu.

The AI Model is rolled out using an Android App (e-Paarvai) where the field workers capture the eye of the patient and know whether they have mature cataract, immature cataract, IOL or no cataract.

TNeGA has developed an intelligent mobile application leveraging artificial intelligence to identify the presence of cataract in the eye of the person being screened. It uses computer vision and its a state-of-the-art object detection model to solve the problem.

THE PROCEDURE

The field worker's downloads the application on their digital device. The application uses Artificial Intelligence for giving a quick screening on an eye image to classify it as cataract or not. Depending upon the analysis, once a patient is found to be positive for cataract then the base hospital in the district is informed to treat the patient through surgery.

CHALLENGE

An external team consisting of experts had to be created for labelling the large dataset collected.