# ABSTRACT ON AN INVENTION IN MY FIELD OF STUDY(REGA)

## Red Eye Guard Application

The **Red Eye Guard Application** is a groundbreaking innovation designed to promote eye health by detecting early signs of eye conditions such as red-eye syndrome. This application utilizes **TensorFlow Lite** machine learning models to analyze images of the eye and provide real-time feedback on whether the eye exhibits symptoms of potential problems.

The goal of this application is to empower individuals to monitor their eye health conveniently and efficiently, especially in regions where access to specialized eye care may be limited. By providing instant analysis and recommendations, users can take preventive measures early, potentially avoiding more severe eye conditions.

The app is user-friendly and accessible to everyone, making it a valuable tool for maintaining eye health. The simplicity of the **Red Eye Guard Application** ensures that even those with minimal technical knowledge can benefit from its features, leading to a healthier society overall.

**KISWAHILI**

Programu ya Red Eye Guard ni ubunifu wa kimsingi ulioundwa ili kukuza afya ya macho kwa kugundua dalili za mapema za magonjwa ya macho kama vile ugonjwa wa macho mekundu. Programu hii hutumia miundo ya mashine ya TensorFlow Lite kuchanganua picha za macho na kutoa maoni ya wakati halisi kuhusu iwapo jicho linaonyesha dalili za matatizo yanayoweza kutokea.

Lengo la programu hii ni kuwawezesha watu binafsi kufuatilia afya ya macho yao kwa urahisi na kwa ustadi, hasa katika maeneo ambayo ufikiaji wa huduma maalum za macho unaweza kuwa mdogo. Kwa kutoa uchanganuzi na mapendekezo ya papo hapo, watumiaji wanaweza kuchukua hatua za kuzuia mapema, uwezekano wa kuepuka hali mbaya zaidi za macho.

Programu ni rahisi kutumia na inapatikana kwa kila mtu, na kuifanya kuwa zana muhimu ya kudumisha afya ya macho. Urahisi wa Maombi ya Red Eye Guard huhakikisha kwamba hata wale walio na ujuzi mdogo wa kiufundi wanaweza kufaidika kutokana na vipengele vyake, na hivyo kusababisha jamii yenye afya kwa ujumla.

**KIKUYU**

Programu ya Red Eye Guard nĩ ũrutani mwerũ ũrĩa ũhũthĩkaga mũno harĩ kũrũnga mahĩtia ma maitho na njĩra ya gũkũũrana maũndũ marĩa mangĩtũma maitho mathũke ta mũrimũ wa red eye. Programu ĩno ĩhũthagĩra TensorFlow Lite machine learning models gũthuthuria mbica cia maitho na kũheana macokio ma ihinda-inĩ rĩrĩa rĩna kana maitho nĩ maronania irema cia mathĩna marĩa mangĩkorũo kuo. Muoroto wa programu ĩno nĩ kũhe andũ ũhoti wa kũrora ũgima wao wa maitho na njĩra njega na ya kĩguni, makĩria icigo-inĩ iria gũtarĩ ũhoti wa kũrora maitho. Na njĩra ya gũtaarĩria na kũheana ũtaaro o hĩndĩ ĩyo, arĩa mahũthagĩra ndawa ĩyo no mahũthĩre njĩra cia kũgirĩrĩria tene, na ũndũ ũcio no ũhote gwĩthema mathĩna manene ma maitho. Programu ĩyo nĩ hũthũ kũhũthĩrũo na no ĩhũthĩrũo nĩ mũndũ o wothe, na kwoguo nĩ ya bata mũno harĩ kũiga maitho maku marĩ na ũgima mwega. Ũhũthũ wa Programu ya Kũgitĩra Maitho nĩ ũtũmaga o na andũ arĩa matarĩ na ũmenyo wa tekinolonjĩ mahũthĩre maũndũ marĩa marĩ thĩinĩ wayo, na ũndũ ũcio ũgatũma andũ makorũo na ũgima mwega wa mwĩrĩ.