

ABSTRACT

The cornea is the outer layer of the eye, the surface covering the front of the eye. The structural and repair properties of the cornea are essential for its function: protecting the inner contents of the eye, maintaining the shape of the eye, and achieving light refraction. The cornea is composed of proteins and cells and does not contain blood vessels, unlike most tissues in the human body existence of blood vessels may affect its transparency, which in turn may affect the proper light refraction, hence worsening vision. Because there are no blood vessels that supply nutrients in the cornea, tears and aqueous humor provide nutrients to the cornea. cornea is composed of five layers: the epithelium, the Bowman's layer, the stroma, Descemet's membrane, and the endothelium. The first layer, the epithelium, is a cell layer that covers the cornea. This layer absorbs oxygen from tears and passes it to the rest of the cornea. The cornea also contains free nerve endings.

CONTENTS

Abstract		i
Contents		ii
List of Figures		iv
Chapter	Chapter Name	Page No.
1	Introduction	1
2	Literature Survey	4
3	System Analysis	8
	3.1 Software Requirements	8
	3.2 Hardware Tools	8
	3.3 User Requirements	9
4	Design	10
	4.1 System Architecture	11
	4.2 Use case Model	12
	4.3 Sequence Diagram	12
	4.3.1 Sequence diagram for Preprocessing	13
	4.3.2 Sequence diagram for Splitting Dataset	14
	4.3.3 Sequence diagram for Model Training	14
	4.4 Activity diagram	15
	4.5 State Chart Diagram	17
	4.6 Class Diagram	18

5	Implementation	28
6	Results	
	6.1 User Documentation	29
	Conclusion	34
	References	35

List of Figures

Figure No.	Figure Name	Page No.
1.1	Difference between a Normal Eye and a Keratoconus Eye	1
4.1	System Architecture	11
4.2	Use case diagram	12
4.3.1	Sequence diagram for Preprocessing	13
4.3.2	Sequence diagram for Splitting Dataset	14
4.3.3	Sequence diagram for Model Training	14
4.4	Activity diagram	15
4.5	State Chart diagram	17
4.6	Class Diagram	18
6.1	Home Page	31
6.2	Login Form	31
6.3	Admin Home Page	32
6.4	Ophthalmologist remove Page	32
6.5	Ophthalmologist home Page	33
6.6	Result Prediction Page	33

