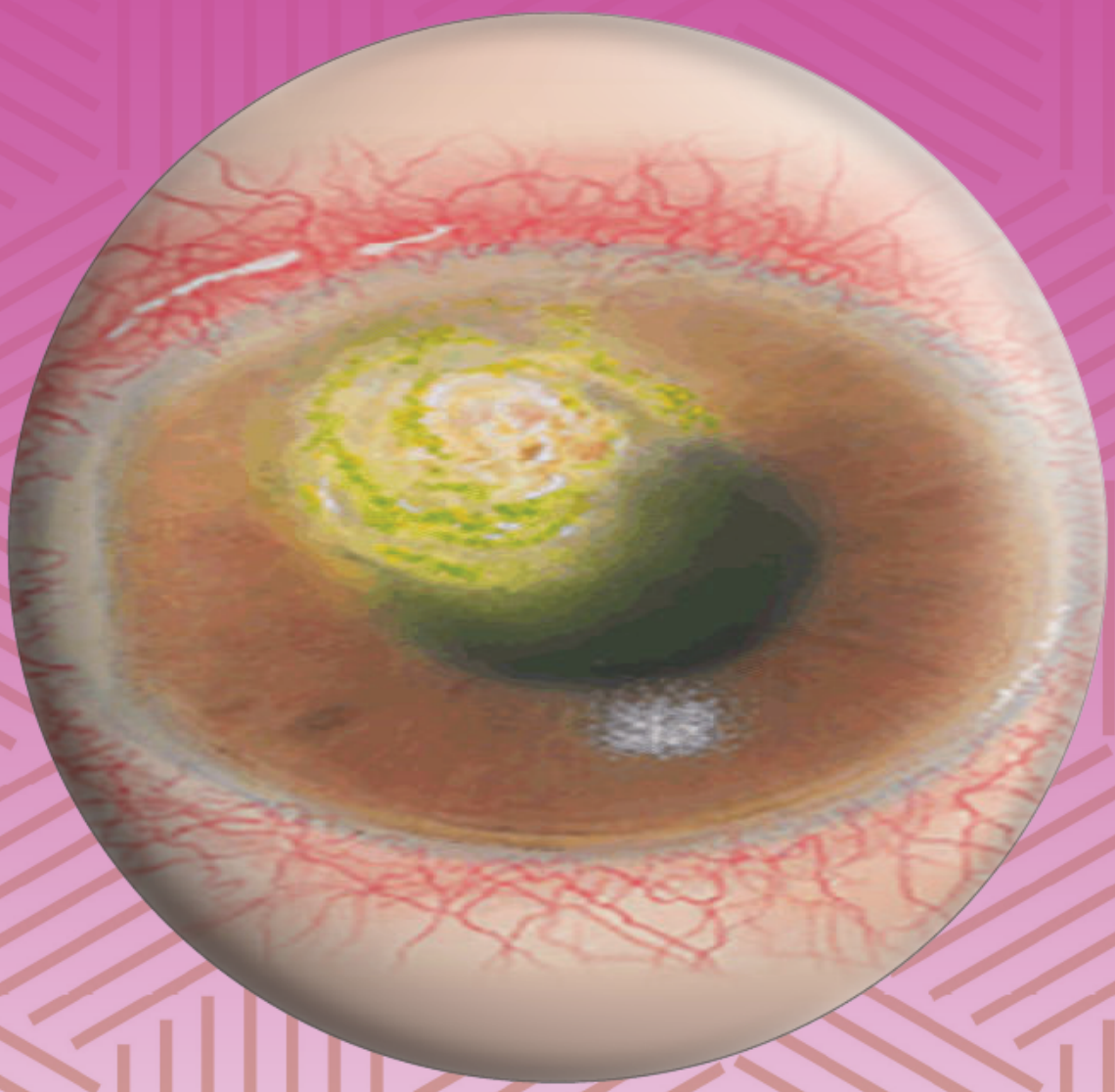
MODELING PERCEPTION OF FIBROVASCULAR REDNESS



NORFAZRINA ABDUL GAFFUR
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IIUM
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IIUM
Press
Gombak • 2017

First Print, 2017
©IIUM Press, 2017

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(Malaysian Scholarly Publishing Council)

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Perpustakaan Negara Malaysia Cataloguing-in-Publication Data

Norfazrina Abdul Gaffur
MODELING PERCEPTION OF FIBROVASCULAR REDNESS / NORFAZRINA BINTI ABDUL GAFFUR, MOHD ZULFAEZAL BIN CHE AZEMIN.
ISBN 978-967-418-671-5
1. Cornea. 2. Pterygium.
I. Mohd. Zulfaezal Che Azemin. II. Title.
611.84

Published & Printed in Malaysia by
IIUM Press
International Islamic University Malaysia
P.O. Box 10, 50728 Kuala Lumpur, Malaysia

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SYMBOLS

™	Trademarked
º	Degree
>	More than
=	Equal to
&	And

ABBREVIATIONS

ANN	Artificial Neural Network
CCLRU	Cornea and Contact Lens Unit
CRT	Cathode Ray Tube
CSO	Construzione Strumenti Oftalmici
HD	High Definition
ICC	Intra-class Correlation
IIUM	International Islamic University Malaysia
IREC	IIUM Research Ethical Committee
LCD	Liquid Crystal Displays
RGB	Red-Green-Blue
ROI	Region of Interest
SLB	Slit Lamp Biomicroscopy
UV	Ultraviolet
MPEG	Motion Picture Experts Group
JPEG	Joint Photographic Experts Group

MODELING PERCEPTION OF FIBROVASCULAR REDNESS

Pterygium has a worldwide distribution and more common in warm and dry climates especially in countries such as Philippines, Myanmar, South Thailand and Peninsular Malaysia which are originated near the equator belt of the earth and less than 2% in altitudes. Pterygium was more commonly observed in those who worked outside, and it was positively correlated with lower latitudes and high ultraviolet levels (Taylor, 1980). There is another study suggests that pterygium can induce corneal astigmatism. When primary pterygium reaches more than 1.0 mm in size from the limbus, it induces with-the-rule significant astigmatism (> or = 1.0 dioptre) (Avisar, Loya, Yassur, & Weinberger, 2000). One of the causes of the red eye is pinguecula or pterygium. Pterygium is a non-malignant and a slow growing proliferation of wing shaped fibrovascular tissue originating on the conjunctiva and extending onto the cornea. This condition later will disturb the vision (Galor & Jeng, 2008). Symptoms of pterygium include foreign body sensation, persistent redness from smoking and air pollution from vehicles and factories. Besides, other symptoms of pterygium also include inflammation of the eyes, tearing, which can cause bleeding, dry and itchy eyes. In more advanced cases the pterygium can affect vision as it encroaches the cornea with the potential of obscuring the optical centre of the cornea and inducing astigmatism and corneal scarring (Hood, 2009). Moreover, pterygium may cause significant alteration in visual function in some advanced cases.

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ISBN 978-967-418-671-5

9 789674 186715

IIUM Press
Tel : +603 6196 5014 / 6196 5004
Fax : +603 6196 4862 / 6196 6298
Email : iiumbookshop@iium.edu.my
Website : http://iiumpress.iium.edu.my/bookshop