

# KHAIRIDZAN MOHD. KAMAL



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## المؤهل العلمي

- Master of Surgery (Ophthalmology)
- Basic Medical Degree

## مسؤوليات التدريس

BODY REACTION TO PHYSICAL, CHEMICAL & BIOLOGICAL AGENTS	2010/2011
CARDIOVASCULAR, RESPIRATORY, BLOOD AND BLOOD FORMING ORGANS	2010/2011
INVESTIGATIVE PROJECT 1	2012/2013 2013/2014
INVESTIGATIVE PROJECT 2	2016/2017
NORMAL RESPONSE & PROCESS TO DISEASED STATE	2010/2011
OCULAR DISEASE 1	2012/2013 2013/2014
OPHTHALMOLOGY	2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021

## المشاريع البحثية

### In Progress

- 2021 - Present** Cellular Morphology and Vasculature Changes on Ocular Surface in Pediatric Ocular Allergy
- 2021 - Present** Cellular Morphological Changes at The Ocular Surface in Cataract Patients with Dry Eye Disease and its Relationship to Dry Eye Symptoms and Tear Function Tests
- 2019 - Present** Optimisation of corneal stromal lenticules in vitro using retinoid acid-supplemented medium
- 2019 - Present** Cellular behaviour and cornea stromal response as a clinical predictor of visual performance after excimer laser refractive surgery

- 2018 - Present** Application of Machine Learning Techniques on Biomedical Images
- 2018 - Present** Prototype development of comprehensive pterygium prediction software utilizing multiple pterygium morphologies
- 2017 - Present** Impact of multiple types of pterygium on the anterior corneal curvature and changes in ocular surface features
- 2017 - Present** The Effect of Short-term Smartphone Usage on Tear Film Dynamics and Visual System
- 2016 - Present** Assessment of Ocular Profiles in Laser Refractive Surgery

### Completed

- 2018 - 2020** Application of Machine Learning Techniques on Biomedical Images
- 2017 - 2019** Impact of multiple types of pterygium on the anterior corneal curvature and changes in ocular surface features
- 2016 - 2020** Assessment of Ocular Profiles in Laser Refractive Surgery
- 2014 - 2017** Characterizing Pterygium Fibrovascular Tissue using Hybrid Feature Selection Technique
- 2010 - 2012** Prevalence of Diabetic Retinopathy (DR) in Primary Care Clinic by using Non-Mydriatic Retinal Camera
- 2008 - -1** IIUM Kuantan Eye Screening (IKES)
- 2006 - 2009** Primary Ptergium Excision Using Fibrin Sealant (Tissel?) in Conjunctival Autograft Technique

### المنشورات

#### Article

- 2020** [Effects of different types of primary pterygium on changes in oculo-visual function = Jenis pterigium primari dan kesannya pada perubahan fungsi okulovisual\).](#) Sains Malaysiana , 49 (2) pp.383-388
- 2020** [Refractive surprise in post-cataract surgery in post Epi-LASIK patient : a lesson learnt.](#) IIUM Medical Journal Malaysia , 19 (2) pp.98-101
- 2020** [Mesopic Pupillometry in Pre-LASIK Patients by a Placido-Disc Topographer and Hartmann-Shack Aberrometer.](#) Malaysian Journal of Medicine and Health Sciences
- 2020** [Correlation of visual recovery time after laser refractive surgery with preoperative keratometry and astigmatism among myopic astigmatism patients.](#) International Journal of Allied Health Sciences , 4 (1) pp.1028-1041

- 2020** [Association of net pterygium tissue mass \(dryweight\) in determining changes in oculovisual functions and anterior corneal curvature relative to pterygium types.](#) International Journal of Allied Health Sciences , 4 (1) pp.1042-1048
- 2020** [Effectiveness of PTechSIA questionnaire in quantifying phacoemulsification surgical technique variations: a pilot study.](#) International Journal of Allied Health Sciences , 4 (1) pp.1057-1062
- 2020** [Reliability of Pterygium Redness Grading Software \(PRGS\) in describing different types of primary pterygia based on appearance = Kebolehpercayaan Perisian Penggredan Kemerahan Pterigium \(PRGS\) dalam menjelaskan pelbagai jenis pterigium berdasarkan perawakan.](#) Sains Malaysiana , 49 (5) pp.1015-1020
- 2020** [Pterygium recurrence and corneal stabilization point after pterygium excision using the controlled partial avulsion fibrin glue technique.](#) Makara Journal of Health Research , 24 (2) pp.140-146
- 2019** [Utilization of anterior segment optical coherence tomography enhanced high resolution corneal in measuring pterygium thickness.](#) Journal of Medicine and Health (Sains medika) , xx (xx) pp.1-13
- 2019** [Changes in apical corneal curvature in unilateral primary Pterygium and normal adults using simulated-K and corneal irregularity measurement.](#) International Journal Of Allied Health Sciences (IJAHS) , 3 (2) pp.588-594
- 2019** [Comparison of visual acuity and contrast sensitivity between unilateral primary Pterygium and normal adults utilizing computerized M&S smart system II.](#) International Journal Of Allied Health Sciences (IJAHS) , 3 (2) pp.643-648
- 2019** [Tear film and lid margin changes in patients with different types of primary pterygium.](#) Sains Medika
- 2019** [The measurement of lower tear meniscus height using Anterior segment digital imaging and keratography.](#) Journal of Optometry, Eye and Health Research (JOEHR) , 1 (1)
- 2019** [Reliability analysis of subjectively graded real-image pterygium based on its translucence appearance between two experienced clinicians preliminary report.](#) Journal of Optometry, Eye and Health Research (JOEHR) , 1 (1)
- 2019** [Corneo-ptyerygium total area measurements utilising image analysis method.](#) Journal of Optometry , 12 (4) pp.272-277
- 2019** [Face and content validation of Phacoemulsification techniques related to surgically induced astigmatism questionnaire.](#) International Journal of Research in Pharmaceutical Sciences , 10 (4) pp.2696-2700
- 2019** [Topographic Changes As Predictor For Determining Anterior Corneal Curvature Stabilization Point Subsequent To Pterygium Excision Using Controlled Partial Avulsion Fibrin Glue Technique.](#) International Journal Allied Health Sciences (IJAHS) , 3 (2) pp.734-740
- 2019** [The comparison of Shape factor and mean toric keratometry between pterygium and normals.](#) International Journal of Allied Health Sciences (IJAHS) , 3 (4) pp.848-853

- 2018** [Prevalence of Diabetic Retinopathy \(DR\) and its associated factors among diabetes patients in Primary Care Clinics, Kuantan, Pahang.](#) International Medical Journal of Malaysia (IMJM) , 17 (2) pp.11-16
- 2018** [Corneal curvature measurements utilizing a new swept-source optical coherence tomography Tomey OA-2000® and comparison with IOLMaster® 500 in pterygium patients.](#) Sains Medika: Jurnal Kedokteran dan Kesehatan , 9 (1)
- 2018** [Measurement of contrast sensitivity using the M&S smart system II compared with the standard Pelli-Robson chart in patients with primary pterygium.](#) Makara Journal of Health Research , 22 (3) pp.167-171
- 2017** [The relationship between symptomatic assessment and clinical signs of dryness in dry eye subjects.](#) International Medical Journal Malaysiayia , 16 (supp issue 1) pp.47-47
- 2017** [Appearance of lipid floating and tear film stability in non-dry and dry eye subjects.](#) Journal of Health and Translation Medicine , Special issue 2017 pp.110-110
- 2017** [Prediction of changes in visual acuity and contrast sensitivity function by tissue redness after pterygium surgery.](#) Current Eye Research , 42 (6) pp.852-856
- 2017** [The value of aqueous assessment in diagnosing dry eye.](#) The International Medical Journal Malaysia (IMJM) , 16 (supp. 1) pp.14
- 2016** [Benchmarked pterygium images for human and machine graders.](#) Journal of Engineering and Applied Sciences , 11 (11) pp.2378-2382
- 2016** [New modified equation of contact lens method in determining post myopic laser refractive surgery corneal power.](#) International Medical Journal Malaysia , 15 (1) pp.61-68
- 2016** [A comparative study on the inter-session and inter-examiner reliability of corneal power measurement using various keratometry instruments.](#) International Medical Journal Malaysia , 15 (1) pp.69-74
- 2016** [Inter-grader reliability of a supervised pterygium redness grading system.](#) Advanced Science Letters , 22 (10) pp.2885-2888
- 2015** [GLCM texture analysis on different color space for pterygium grading.](#) ARPN Journal of Engineering and Applied Sciences , 10 (15) pp.6410-6413
- 2009** [Classic lattice corneal dystrophy associated with monoclonal gammopathy following exclusion of a TGFB1 mutation .](#) Cornea , 28 (1) pp.97-98
- 2009** [Epithelial debridement and Bowman's layer polishing for visually significant epithelial irregularity and recurrent corneal erosions.](#) Cornea , 28 (10) pp.1085-1090

#### **Conference or Workshop Item**

- 2019** [Corneo-ptyerygium total area measurements utilizing image analysis method.](#) In: **10th MSO Annual Scientific Meeting in conjunction with the 34th Malaysia-Singapore Joint Ophthalmology Congress**
- 2019** [Demystifying the controversies and outcome : toric intraocular lens implantation in cataract patients with corneal astigmatism post pterygium surgery.](#) In: **7th USM Ophthalmology Symposium in conjunction with the 9th Conjoint Ophthalmology Scientific Conference**

- 2019 [Comparison and evaluation of five different surgically induced astigmatism calculators outcome and analysis reports.](#) In: **2019 ASCRS ASOA Annual Meeting**
- 2019 [Repeatability and reproducibility of pterygium thickness measurement using OCT imaging modality of Anterior Segment Optical Coherence Tomography \(AS-OCT\).](#) In: **10th MSO Annual Scientific Meeting in conjunction with the 34th Malaysia-Singapore Joint Ophthalmology Congress 2019**
- 2019 [Correlation between variation in phacoemulsification surgical techniques and predictability of surgical induced astigmatism.](#) In: **3rd Ophthalmology Scientific Conference 2019**
- 2019 [In-vivo confocal microscopy: comparison of Keratocytes cell density \(KCD\) between Femtosecond LASIK \(FS-LASIK\) and Photorefractive keratectomy \(PRK\) at one month follow-up.](#) In: **7th USM Ophthalmology Symposium in conjunction with the 9th Conjoint Ophthalmology Scientific Conference**
- 2019 [Reliability measurement of total aberrations using Galilei G4 Dual Scheimpflug Analyzer.](#) In: **7th USM Ophthalmology Symposium in conjunction with the 9th Conjoint Ophthalmology Scientific Conference**
- 2019 [Comparison between predicted and actual surgically induced astigmatism \(SIA\) on the toric IOL calculation outcome using two toric intraocular lens \(IOL\) calculators.](#) In: **10th MSO Annual Scientific Meeting in conjunction with 34th Malaysia-Singapore Joint Ophthalmic Congress 2019**
- 2019 [Evaluation of four calculators in determining surgically induced astigmatism values.](#) In: **10th MSO Annual Scientific Meeting in conjunction with 34th Malaysia-Singapore Joint Ophthalmic Congress 2019**
- 2019 [Reliability measurement of corneal wavefront aberrations using corneal videokeratograph Atlas 9000.](#) In: **5th Medical Research Symposium**
- 2019 [Utilization of clinical videography technique in the assessment of tear meniscus rising speed.](#) In: **The 10th MSO Annual Scientific Meeting in conjunction with the 34th Malaysia-Singapore Joint Ophthalmic Congress Secretariat**
- 2018 [Comparison of surgically induced astigmatism after superotemporal and superonasal clear corneal incisions in post phacoemulsification.](#) In: **3rd Ophthalmology-Optometry Conference 2018**
- 2017 [Comparison of higher-order aberration values between different aberrometry technologies in preoperative laser refractive surgery patients.](#) In: **Medical Research Symposium 2017**
- 2016 [New contact lens method formula for post laser refractive surgery corneal power.](#) In: **6th Conjoint Ophthalmology Scientific Conference 2016**
- 2015 [Refractive surgery nightmare.](#) In: **28th Annual Meeting of the Asia-Pacific Association of Cataract & Refractive Surgeons**
- 2015 [Comparative analysis of subjective and objective clinical pterygium grading based on its redness appearance.](#) In: **The 23rd Symposium of the International Colour Vision Society (ICVS) 2015**

- 2015 [Deriving a modified equation for contact lens method in calculating corneal power in post myopic laser refractive surgery patient.](#) In: **International Symposium of Health Sciences (i-SIHAT) 2015**
- 2014 [Fibrovascular redness grading using Gaussian process regression with radial basis function kernel.](#) In: **2014 IEEE Conference on Biomedical Engineering and Sciences (IECBES 2014)**
- 2014 [Supervised pterygium fibrovascular redness grading using generalized regression neural network.](#) In: **13th International Conference on New Trends in Intelligent Software Methodology Tools, and Techniques (SoMeT\_14)**
- 2012 [Prevalence of diabetic retinopathy and its associated factors among diabetic patients in primary care clinic.](#) In: **IIUM Research, Invention and Innovation Exhibition IRIIE 2012**
- 2011 [Prevalence of diabetic retinopathy and its associated factors among diabetic patients in primary care clinics, Kuantan, Pahang.](#) In: **3rd International Conference on Rural Medicine 2011 " Health Transformation During Challenging Economies"**

**Book  
Book Section**