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# **OPTICAL COHERENCE TOMOGRAPHY OF THE ANTERIOR SEGMENT**

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## **Essay**

Submitted for Partial Fulfillment of M.Sc.Degree  
In Ophthalmology

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# List of Abbreviations

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|                      |       |                                               |
|----------------------|-------|-----------------------------------------------|
| <b>μm</b>            | ..... | Micrometer                                    |
| <b>μW</b>            | ..... | Microwatt                                     |
| <b>λ</b>             | ..... | Wavelength                                    |
| <b>2-D</b>           | ..... | Two-Dimensional                               |
| <b>3-D</b>           | ..... | Three-Dimensional                             |
| <b>%</b>             | ..... | Percent                                       |
| <b>A-scan</b>        | ..... | Amplitude-Scan                                |
| <b>AC</b>            | ..... | Anterior chamber                              |
| <b>AC Cornea OCT</b> | ..... | Anterior Chamber / Cornea OCT                 |
| <b>ACA</b>           | ..... | Anterior Chamber Angle                        |
| <b>ACD</b>           | ..... | Anterior Chamber Depth                        |
| <b>ACG</b>           | ..... | Angle Closure Glaucoma                        |
| <b>ACW</b>           | ..... | Anterior Chamber Width                        |
| <b>AOD 0.1, 0.5</b>  | ..... | Angle Opening Distance at 0.1 and 0.5 μm      |
| <b>AP</b>            | ..... | Antero-posterior                              |
| <b>ARA 0.1, 0.5</b>  | ..... | Angle Recess Area at 0.1 and 0.5 μm           |
| <b>AS-OCT</b>        | ..... | Anterior Segment-Optical Coherence Tomography |
| <b>B-scan</b>        | ..... | Brightness-scan                               |
| <b>BCVA</b>          | ..... | Best Corrected Visual Acuity                  |
| <b>C-scan</b>        | ..... | Coronal-Scan                                  |

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|                  |       |                                               |
|------------------|-------|-----------------------------------------------|
| <b>CBS</b>       | ..... | Capsular Block Syndrome                       |
| <b>CCD</b>       | ..... | Charge Coupled Device                         |
| <b>CCT</b>       | ..... | Central Corneal Thickness                     |
| <b>CLR</b>       | ..... | Crystalline Lens Rise                         |
| <b>D</b>         | ..... | Dioptres                                      |
| <b>db</b>        | ..... | Decibels                                      |
| <b>DSEK</b>      | ..... | Descemet's Stripping Endothelial Keratoplasty |
| <b>FD-OCT</b>    | ..... | Fourier-Domain OCT                            |
| <b>FDA</b>       | ..... | Food and Drug Administration                  |
| <b>Fig</b>       | ..... | Figure                                        |
| <b>H &amp; E</b> | ..... | Haematoxylin and Eosin                        |
| <b>ICL</b>       | ..... | Implantable Contact Lens                      |
| <b>Intacs</b>    | ..... | Intrastromal Corneal Ring Segments            |
| <b>IOL</b>       | ..... | Intracocular Lens                             |
| <b>IOP</b>       | ..... | Intraocular Pressure                          |
| <b>LASIK</b>     | ..... | Laser Assisted In-Situ Keratomileusis         |
| <b>LI</b>        | ..... | Laser Iridotomy                               |
| <b>LPI</b>       | ..... | Laser Peripheral Iridotomy                    |
| <b>m/sec</b>     | ..... | Meter per second                              |
| <b>MHz</b>       | ..... | Mega Hertz                                    |
| <b>mm</b>        | ..... | Millimeter                                    |
| <b>MMC</b>       | ..... | MytoMyCineC                                   |

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|                |                                                             |
|----------------|-------------------------------------------------------------|
| <b>mW</b>      | ..... Milliwatt                                             |
| <b>nm</b>      | ..... Nanometer                                             |
| <b>No°</b>     | .....No Degree                                              |
| <b>OCP</b>     | ..... Optical Coherence Pachymetry                          |
| <b>OCT</b>     | ..... Optical Coherence Tomography                          |
| <b>ONH</b>     | ..... Optic Nerve Head                                      |
| <b>OTI</b>     | ..... Ophthalmic Technologies Inc, Toronto, Ontario, Canada |
| <b>PAS</b>     | .....Peripheral Anterior Synaechia                          |
| <b>PCIOL</b>   | ..... Posterior Chamber Intraocular Lens                    |
| <b>PCO</b>     | ..... Posterior Capsular Opacification                      |
| <b>PCT</b>     | ..... Posterior Capsular Opacification Thickness            |
| <b>PDS</b>     | ..... Pigment Dispersion Syndrome                           |
| <b>pIOL</b>    | ..... Phakic Intraocular Lens                               |
| <b>PKP</b>     | ..... Penetrating Keratoplasty                              |
| <b>POAG</b>    | ..... Primary Open Angle Glaucoma                           |
| <b>Post-Op</b> | ..... Post-Operative                                        |
| <b>Pre-Op</b>  | .....Pre-Operative                                          |
| <b>RNFL</b>    | ..... Retinal Nerve Fiber Layer                             |
| <b>RSB</b>     | ..... Residual Stromal Bed                                  |
| <b>SD</b>      | ..... Standard Deviation                                    |
| <b>sec</b>     | ..... Second                                                |
| <b>SL-OCT</b>  | ..... Slit-Lamp Adapted OCT                                 |

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|                            |                                                        |
|----------------------------|--------------------------------------------------------|
| <b>SLD</b> .....           | Super-Luminescent Diodes                               |
| <b>SLO</b> .....           | Scanning Laser Ophthalmoscope                          |
| <b>TD-OCT</b> .....        | Time-Domain OCT                                        |
| <b>TISA</b> ๑๑๑, ๗๑๑ ..... | Trabecular Iris Spur Area at ๑๑๑ and ๗๑๑ $\mu\text{m}$ |
| <b>VA</b> .....            | Visual Acuity                                          |
| <b>vs</b> .....            | Versus                                                 |
| <b>UBM</b> .....           | Ultrasound Biomicroscopy                               |
| <b>UHR-OCT</b> .....       | Ultrahigh-Resolution OCT                               |
| <b>US</b> .....            | Ultrasound                                             |
| <b>WTW</b> .....           | White To White distance                                |

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# INTRODUCTION

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