

## STATE OF THE ART DIAGNOSTICS FOR GLAUCOMA SCREENING NOW AVAILABLE AT SINGAPORE EYE RESEARCH INSTITUTE



### **ARGALI Demonstration**

Prime Minister Lee Hsien Loong, Guest-of-Honour at the Fusionopolis Opening Ceremony viewing a demonstration of the ARGALI system by Dr Damon Wong from I2R .

The **ARGALI (an Automatic cup-to-disc Ratio measurement system for Glaucoma AnaLlysis)** system, a collaboration between the Singapore Eye Research Institute (SERI), Singapore National Eye Centre (SNEC) and Institute for Infocomm (I2R), A\*STAR was showcased at the recent opening of Fusionopolis, Singapore's second major R&D hub, on 17 October 08.

The ARGALI system is developed through inter-disciplinary collaborative efforts between clinician ophthalmologists, spear-headed by SERI Directors, Prof Wong Tien Yin and A/Prof Aung Tin, as well as computer scientists from I2R. **The system is a novel, state-of-the-art, diagnostic system for glaucoma screening.** The ARGALI system **automatically calculates the CDR from retinal photographs, and provides a fast, objective and consistent measurement with potential for screening.** It is tested using images collected from patients at the SERI/SNEC. The innovative system integrates existing and newly developed image processing techniques, intelligent fusion technology and clinical experiences, and helps provide a quick and uniform CDR for glaucoma screening, diagnosis and analysis.

ARGALI also aims to compliment clinical practices and advance the latest intelligent medical image processing based glaucoma diagnosis algorithm using 2D retinal fundus images which can be obtained through the use of existing, commercially available, low-cost equipment.

ARGALI is now patented and serves as another triumphant endeavor by SERI & SNEC, as it further establishes itself as one of the leaders in the field of translational research.