

[Centre for Vision Research]

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Background and Mandate

Our mandate is to pursue interdisciplinary research and training in the broadly-defined visual sciences and their applications. The sense of vision does not stand alone: it is the primary input not only for understanding the world around us, but also for guiding action in the world, for determining interaction with the world and inherently integrates with the other sensory processes. The CVR provides a simple and effective infrastructure that provides members with maximal freedom in pursuing their research programmes while encouraging collaboration among members and across disciplines.

Organizational Structure and Staffing

Director
Associate Director
CVR Steering Committee (see below)
Administrative Assistant
Technical Staff

CVR Steering Committee 2003/04

Director	John K. Tsotsos
Associate Director	Doug Crawford
Academic Coordinator	Hugh Wilson
Facilities Coordinator	Rob Allison
Seminar Coordinator	Laurence Harris
Ex-officio	Ian P. Howard
Member	James Elder
Member	Richard Wildes
Member	Sven Dickinson (rep. for adjuncts)

York University Faculty Affiliated with the Centre (2003-2004)

- Scott Adler Assistant Professor of Psychology
Interests: the relation between cognitive and visual processes in young infants.
- Rob Allison Assistant Professor of Computer Science
Research Associate, Human Performance Laboratory
Interests: stereoscopic vision, perceptual issues in virtual environments, eye movements.
- Doug Crawford Associate Professor of Psychology, Biology, and Kinesiology & Health Sciences
Associate Director, York Centre for Vision Research
Canada Research Chair in Visual-Motor Neuroscience
Interests: three-dimensional eye and head movements, eye-hand coordination, Trans-saccadic perceptual integration, modeling, neurophysiology.
- James Elder Associate Professor of Psychology, Computer Science, and Mathematics
Interests: visual psychophysics, computational vision, visual telepresence,
- Keith Grasse Associate Professor of Psychology and Biology (currently on leave).
Interests: neurophysiology of the visual system, eye movements, auditory neurophysiology, neuropharmacology.
- Laurence Harris Professor of Psychology and Biology
Interests: perception and coding of space and self motion.
- Ian Howard Distinguished Research Professor of Psychology and Biology
Interests: space perception, eye movements, visual-vestibular interactions.
- Richard Hornsey Associate Professor of Computer Science and Physics
Interests: integrated electronic sensors, biologically inspired image sensors, low vision enhancement systems, sensors for space applications.
- Michael Jenkin Professor of Computer Science
Project Leader, Human Performance Laboratory
Interests: computer vision, mobile robotics, immersive visual displays.
- Hiroshi Ono Distinguished Research Professor of Psychology
Interests: visual perception of direction and distance, eye movements.

Members cont'd.

- David Regan CAE/NSERC Industrial Research Professor.
Distinguished Research Professor of Psychology and Biology, York University
Professor of Ophthalmology and Medicine, University of Toronto
Fellow of the Royal Society of Canada
Foreign Fellow of the Royal Netherlands Academy of Science
Interests: psychophysics of spatial vision, motion, stereopsis, colour vision, vision
aviation, visually evoked magnetic and electrical brain activity, visual disorders,
auditory psychophysics.
- Josée Rivest Associate Professor of Psychology, Glendon College, York University
Department of Psychology of the Baycrest Centre for Geriatric Care
Interests: neuropsychology, object recognition, multiple attributes in visual
processing.
- Lauren Sergio Assistant Professor of Kinesiology and Health Sciences
Interests: neural mechanisms of visually guided reaching in parietal and precentral
cortex.
- Minas Spetsakis Associate Professor of Computer Science
Interests: computer vision and robotics.
- Paul Stager Professor of Psychology
Research Associate, Human Performance Laboratory
Interests: human engineering in aerospace performance and system design
- Martin Steinbach Distinguished Research Professor of Psychology and Biology
Director, Vision Science Research, Toronto Western Hospital
Senior Scientist, Dept. of Ophthalmology, Hospital for Sick Children
Director of Research, Department of Ophthalmology, University of Toronto
Interests: eye movements, visual-motor coordination, clinical disorders of the
oculomotor system.
- Wolfgang Stuerzlinger Assistant Professor of Computer Science
Interests: human-computer interaction, virtual reality, computer graphics.
- Evan Thompson Associate Professor of Philosophy
Interests: philosophical foundations of cognitive science and perception.

Members cont'd.

- John Tsotsos Professor, Dept. of Computer Science, York University
Director, Centre for Vision Research, York University
Canada Research Chair in Computational Vision
Adjunct Professor, Dept. of Computer Science, University of Toronto
Associate Professor, Dept. of Medicine (Cardiology), University of Toronto
Professor, Dept. of Ophthalmology, University of Toronto
Visiting Scientist, Centre for Advanced Studies, IBM Canada, Toronto Labs
Adjunct Professor, Dept. of Computer Science, University of Western Ontario
Interests: human and machine vision, computational models of attention, visual motion understanding, robotics.
- Laurie Wilcox Associate Professor of Psychology
Interests: stereopsis/depth perception.
- Richard Wildes Associate Professor of Computer Science
Interests: spatiotemporal analysis of visual information, motion analysis, binocular vision, gesture recognition, biometrics.
- Frances Wilkinson Professor and Chair of Psychology, Atkinson College
Affiliated Scientist, Division of Applied and Interventional Research, Toronto Western Research Institute, University Health Network, Toronto
Adjunct Professor - Department of Ophthalmology, University of Toronto
Interests: involvement of the visual system in migraine; intermediate visual form perception using psychophysical, computational and fMRI methodologies.
- Hugh Wilson ORDCF Chair of Biological and Computational Vision
Fellow, Optical Society of America
Interests: psychophysical and neural models of form vision; fMRI studies of cortical form vision, nonlinear dynamics of cortical function.

Activities in 2003-2004

Grants/contracts **5,828,281**

In June, 2003, the Centre hosted an International Conference on “Visual Processing of Spatial form Defined by Luminance, Colour, Motion, Texture and Binocular Disparity” which celebrated the career of David M. Regan.

Activities in 2005

In June 2005, the Centre is hosting an International Conference on Computational Vision in Neural and Machine Systems (details on CVR website)

Publications – 2003-2004

Books -	1
Chapters in Books -	18
Papers in Referred Journal -	53
Published Proceedings -	77
Technical Reports -	3
Conference Presentations -	14
Colloquia-	23
CVR Colloquium Series-	41

Graduate Student Supervision

MA -	14
MSc -	32
PHD -	36

Research - Faculty research interests included above

Adjunct Professors -	16
Research Associates -	21
Post-Doctoral Fellows -	20