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)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Interests</th>
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</thead>
<tbody>
<tr>
<td>Scott Adler</td>
<td>Assistant Professor of Psychology. Interests: the relation between cognitive and visual processes in young infants.</td>
</tr>
<tr>
<td>Rob Allison</td>
<td>Assistant Professor of Computer Science. Research Associate, Human Performance Laboratory. Interests: stereoscopic vision, perceptual issues in virtual environments, eye movements.</td>
</tr>
<tr>
<td>Doug Crawford</td>
<td>Associate Professor of Psychology, Biology, and Kinesiology &amp; 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.</td>
</tr>
<tr>
<td>James Elder</td>
<td>Associate Professor of Psychology, Computer Science, and Mathematics. Interests: visual psychophysics, computational vision, visual telepresence.</td>
</tr>
<tr>
<td>Keith Grasse</td>
<td>Associate Professor of Psychology and Biology. Interests: neurophysiology of the visual system, eye movements, auditory neurophysiology, neuropharmacology.</td>
</tr>
<tr>
<td>Laurence Harris</td>
<td>Professor of Psychology and Biology. Interests: perception and coding of space and self motion.</td>
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<tr>
<td>Ian Howard</td>
<td>Distinguished Research Professor of Psychology and Biology. Interests: space perception, eye movements, visual-vestibular interactions.</td>
</tr>
<tr>
<td>Richard Hornsey</td>
<td>Associate Professor of Computer Science and Physics. Interests: integrated electronic sensors, biologically inspired image sensors, low vision enhancement systems, sensors for space applications.</td>
</tr>
<tr>
<td>Michael Jenkin</td>
<td>Professor of Computer Science. Project Leader, Human Performance Laboratory. Interests: computer vision, mobile robotics, immersive visual displays.</td>
</tr>
<tr>
<td>Hiroshi Ono</td>
<td>Distinguished Research Professor of Psychology. Interests: visual perception of direction and distance, eye movements.</td>
</tr>
</tbody>
</table>
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