

Anton van den Hengel

Position Director, Australian Centre for Visual Technologies, www.acvt.com.au
Professor, School of Computer Science, www.cs.adelaide.edu.au
Adelaide University Adelaide, South Australia 5005
Board Member, SNAP Surveillance Pty Ltd, www.snapsurveillance.com
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Board Member, Simulation S.A.

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Personal Information Nationality: Australian, Dutch
Date of Birth: 12 July 1970
Place of Birth: Ede, Netherlands

Education Ph. D. in Computer Science 1995 – 2000
Adelaide University
Robust Estimation of Structure from Motion in the Uncalibrated Case
Masters Degree in Computer Science 1993 – 1994
Adelaide University
Thesis: Enhancing a Direct Method of Determining Shape from Shading.
Bachelor of Laws 1989 - 1993
Adelaide University
Bachelor of Mathematical Science 1988 - 1991
Adelaide University
Major: Computer Science

Journal Articles A. van den Hengel, D. Sale, A. Dick, *SecondSkin: An interactive method for appearance transfer*, Computer Graphics Forum, to appear (accepted 25/6/09)
A. Flint, A. Dick, A. van den Hengel, *Local 3D Structure Recognition in Range Images*, IET Computer Vision, Volume 2, Issue 4, pp 208 – 217, December 2008.
H. Detmold, A. van den Hengel, A. Dick, K. Falkner, D. Munro, R. Morrison, *Middleware for Distributed Video Surveillance*, IEEE Distributed Systems Online, vol. 9, no. 2, 2008, art. no. 0802-2001.
A. van den Hengel, A., Dick, T. Thormählen, B. Ward, and P. H. S. Torr, *VideoTrace: Rapid interactive scene modelling from video*, ACM Transactions on Graphics, 26(3), Article No. 86, July 2007.
C. Shen, M.J. Brooks, A. van den Hengel, *Fast global kernel density mode seeking: Applications to localisation and tracking*, IEEE Transactions on Image Processing, 16(5), pp. 1457-1469, May 2007.
W. Chojnacki, M.J. Brooks, A. van den Hengel, D. Gawley, *FNS, CFNS and HEIV: A Unifying Approach*, Journal Mathematical Imaging and Vision, 23, 2, pp 175-183, 2005.
W. Chojnacki, M. J. Brooks, A. van den Hengel, D. Gawley, *A new constrained parameter estimator: experiments in fundamental matrix computation*, Image and Vision

Computing, Volume 22, Issue 2, pp 85-91, February 2004.

W. Chojnacki, M. J. Brooks, A. van den Hengel, D. Gawley, *From FNS to HEIV: a link between two vision parameter estimation methods*, IEEE Transactions on Pattern Analysis Machine Intelligence, 26, 2, pp. 264-268, February. 2004.

W. Chojnacki, M. J. Brooks, A. van den Hengel, D. Gawley, *Revisiting Hartley's normalised eight-point algorithm*, IEEE Transactions on Pattern Analysis Machine Intelligence 25, 9, pp 1172-1177, September 2003.

W. Chojnacki, M. J. Brooks, A. van den Hengel, *Rationalising the renormalisation method of Kanatani*, Journal Mathematical Imaging and Vision, 14, 1, 2001, pp. 21-38.

W. Chojnacki, M. J. Brooks, A. van den Hengel, D. Gawley, *On the fitting of surfaces to data with covariances*, IEEE Transactions on Pattern Analysis Machine Intelligence, 22, 11, pp. 1294-1303, November 2000.

K. Kanatani, Y. Shimizu, N. Ohta, M.J. Brooks, W. Chojnacki, A. van den Hengel, *Fundamental matrix from optical flow: optimal computation and reliability evaluation*, Journal of Electronic Imaging, 9, 2, April 2000, pp. 194-202.

Book
Chapters

W. Chojnacki, A. van den Hengel, M. Brooks, *Constrained Generalised Principal Component Analysis*, Advances in Computer Graphics and Computer Vision, International Conferences VISAPP and GRAPP 2006, Setúbal, Portugal, February 25-28, 2006, Revised Selected Papers.

Refereed
Conference
Papers

C. Shen, J. Kim, L. Wang, A. van den Hengel, *Positive Semidefinite Metric Learning with Boosting*, Advances in Neural Information Processing Systems Conference (NIPS) 2009, Vancouver, B.C., Canada, December 2009, to appear.

A. van den Hengel, R. Hill, B. Ward, A. Cichowski, H. Detmold, C. Madden, A. Dick, J. Bastia, *Automatic Camera Placement for Large Scale Surveillance Networks*, IEEE Workshop on Applications of Computer Vision (WACV), Utah, U.S.A., December, 2009, to appear.

A. van den Hengel, R. Hill, B. Ward, A. Dick, *In Situ Image-based Modelling*, IEEE/ACM International Symposium on Mixed and Augmented Reality (ISMAR), Orlando, Florida, USA, October 2009.

A. Eriksson, A. van den Hengel, *Optimization on the Manifold of Multiple Homographies*, The 2nd IEEE International Workshop on Subspace Methods (Subspace 2009), in conjunction with ICCV2009, Kyoto, Japan, September 2009.

A. van den Hengel, H. Detmold, C. Madden, A. Dick, A. Cichowski, R. Hill, *A Framework for Determining Overlap in Large Scale Networks*, ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC 2009), Como, Italy, September, 2009.

Henry Detmold, Anton van den Hengel, Anthony Dick, Christopher Madden, Alex Cichowski, Rhys Hill, *Surprisal-aware Scheduling of PTZ Cameras*, ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC 2009), Como, Italy, September, 2009.

A. Cichowski, C. Madden, A. van den Hengel, R. Hill, H. Detmold, A. Dick, *Contradiction and Correlation for Camera Overlap Estimation*, IEEE International Conference on Advanced Video and Signal Based Surveillance, Genoa, Italy, September, 2009.

R. Hill, A. van den Hengel, A. Dick, A. Cichowski, H. Detmold, *Empirical evaluation of the exclusion approach to estimating camera overlap*, Second ACM/IEEE International Conference on Distributed Smart Cameras, Stanford, USA, September 2008.

H. Detmold, A. van den Hengel, A. Dick, A. Cichowski, R. Hill, E. Kocadag, Y. Yarom, K. Falkner, D. Munro, *Estimating camera overlap in large and growing networks*, Second ACM/IEEE International Conference on Distributed Smart Cameras, Stanford, USA,

September 2008.

A. Flint, A. Dick, A. van den Hengel, *Thrift: Local 3D Structure Recognition*, Digital Image Computing: Techniques and Applications, Adelaide, Australia, December 2007.

A. van den Hengel, A. Dick, T. Thormählen, B. Ward, P.H.S. Torr, *Interactive 3D Model Completion*, Digital Image Computing: Techniques and Applications, Adelaide, Australia, December 2007.

A. van den Hengel, A. Dick, T. Thormählen, B. Ward, P. H. S. Torr, *A Shape Hierarchy for 3D Modelling from Video*, 5th International Conference on Computer Graphics and Interactive Techniques in Australasia and Southeast Asia (GRAPHITE'07), December, 2007

D.W. Pooley, M.J. Brooks, A. van den Hengel, *RATSAC: a method for adaptive accelerated robust estimation, and its application to video synchronisation*, Digital Image Computing: Techniques and Applications, Adelaide, Australia, December 2007.

P. Kumar, M.J. Brooks, A. van den Hengel, An adaptive Bayesian technique for tracking multiple objects, Int. Conf. Patt. Recog. and Mach. Intell. (ICPRMI '07), Kolkata, India, December 2007.

A. van den Hengel, A. Dick, H. Detmold, A. Cichowski and R. Hill, Finding Camera Overlap in Large Surveillance Networks, 8th Asian Conference on Computer Vision, Tokyo, Japan, November 2007. Also in LNCS 0302-9743, pp 375-384, 2007.

A. van den Hengel, H. Detmold, A. Dick & R. Hill, *Preparing for Post-catastrophe Video Processing*, RNSA Security Technology Conference, Melbourne, Australia, September 2007.

H. Detmold, A. van den Hengel, A. Dick, A. Cichowski, R. Hill, E. Kocadag, K. Falkner and D. S. Munro, Topology estimation for thousand-camera surveillance networks, First ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC-07), Vienna, Austria, September 2007.

A. van den Hengel, W. Chojnacki, and M. J. Brooks, Determining the Translational Speed of a Camera from Time-Varying Optical Flow, 1st International Workshop on Complex Motion, Gunzburg, Germany, Springer-Verlag LNCS 3417, pp. 190-197, 2007.

Anton van den Hengel, Anthony Dick, Rhys Hill, Activity Topology Estimation for Large Networks of Cameras, IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS 2006), November, 2006, Sydney, Australia.

Henry Detmold, Anthony Dick, Katrina Falkner, David Munro, Anton van den Hengel, Ron Morrison, *Middleware for Video Surveillance Networks, Middleware for Sensor networks (MidSens2006)*, November, 2006, Melbourne, Australia.

Henry Detmold, Anthony Dick, Katrina Falkner, David S. Munro, Anton van den Hengel, Ron Morrison, Scalable Surveillance Software Architecture, IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS 2006), November, 2006, Sydney, Australia.

Anton van den Hengel, Anthony Dick, Thorsten Thormählen, Ben Ward, and Philip H. S. Torr, Rapid Interactive Modelling from Video with Graph Cuts, Eurographics 2006, September 2006, Vienna, Austria.

Anton van den Hengel, Anthony Dick, Thorsten Thormählen, Ben Ward, Philip H. S. Torr, Building Models of Regular Scenes from Structure-and-Motion, The Seventeenth British Machine Vision Conference (BMVC 2006), September 2006, Edinburgh, United Kingdom.

A. van den Hengel, A. Dick, T. Thormählen, B. Ward, P. H. S. Torr, Hierarchical model fitting to 2D and 3D data, Third International Conference on Computer Graphics,

Imaging and Visualisation, IEEE Computer Society Press, July 2006, Sydney, Australia.

A. van den Hengel, A. Dick, T. Thormählen, P. H. S. Torr, B. Ward. Fitting multiple models to multiple images with minimal user interaction, International Workshop on the Representation and Use of Prior Knowledge in Vision (WRUPKV) held in association with ECCV'06, May 2006, Graz, Austria. (Accepted for Springer LNCS)

W. Chojnacki, A. van den Hengel, M. Brooks, Constrained Generalised Principal Component Analysis, Proceedings of International Conference on Computer Vision Theory and Applications, February 2006, Setúbal, Portugal, also selected for publication in Advances in Computer Graphics and Computer Vision 2006.

J Bastian, A. van den Hengel, Computing Surface-based Photo-Consistency on Graphics Hardware, Proceedings of Digital Image Computing: Techniques and Applications, December 2005, Cairns, Australia.

C. Shen, M. J. Brooks, A. van den Hengel, Fast global kernel density mode seeking: applications to localisation and tracking, IEEE International Conference on Computer Vision (ICCV'05), Beijing, China, Oct. 2005.

C. Shen, M. J. Brooks, A. van den Hengel, Visual tracking via efficient kernel discriminant subspace learning, International Conference on Image Processing (ICIP'05), Genoa, Italy, IEEE Computer Society Press, Sept. 2005.

C. Shen, A. van den Hengel, M. J. Brooks, Augmented particle filtering for efficient visual tracking, International Conference on Image Processing (ICIP'05), Genoa, Italy, IEEE Computer Society Press, Sept. 2005.

M.J. Brooks, A. van den Hengel, A.R. Dick, *Towards intelligent networked video surveillance for the detection of suspicious behaviours*, Science, Engineering and Technology Summit on Counter-Terrorism Technology, Safeguarding Australia 2005, Canberra, July 2005.

Rhys Hill, Anton van den Hengel, *Experiences with Simulated Robot Soccer as a Teaching Tool*, Third International Conference on Information Technology and Applications, July 2005, Sydney, Australia IEEE Computer Society, pp 387-390.

C. Shen, A. van den Hengel, A.R. Dick and M. J. Brooks, *Enhanced importance sampling: unscented auxiliary particle filtering for visual tracking*, Australian Joint Conference on Artificial Intelligence, Cairns, Dec. 2004, Lecture Notes in Artificial Intelligence, 3339, Springer Verlag, pp.180-191.

C. Shen, A. van den Hengel, A. Dick, and M.J. Brooks, 2D articulated tracking with dynamic Bayesian networks, International Conference on Computer and Information Technology (CIT 2004), IEEE Computer Society Press, Wuhan, China, September 2004.

W. Chojnacki, M. J. Brooks, A. van den Hengel, D. Gawley, *FNS, CFNS and HEIV: extending three vision parameter estimation methods*, International Conference on Digital Image Computing: Techniques and Applications (DICTA 2003), Sydney, Dec. 2003, pp.449-458.

J Bastian, A. van den Hengel, *Computing Image-Based Reprojection Error on Graphics Hardware*, Proceedings of *Digital Image Computing: Techniques and Applications*, December 2003, Sydney, Australia, pp 663-672.

Chunhua Shen, Anton van den Hengel, and Anthony Dick, *Probabilistic Multiple Cue Integration for Particle Filter Based Tracking*, Proceedings of *Digital Image Computing: Techniques and Applications*, December 2003, Sydney, Australia, pp 399-408.

Anton van den Hengel, Rhys Hill, Michael J. Brooks, Incorporating constraints into the design of locally identifiable calibration patterns, International Conference on Image

Processing, September 2003, CD Proceedings: I: 817-820.

D. W. Pooley, M. J. Brooks, A. J. van den Hengel, W. Chojnacki, A voting scheme for estimating the synchrony of moving-camera videos, International Conference on Image Processing, September 2003, CD Proceedings: I: 413-416.

W. Chojnacki, M. J. Brooks, A. van den Hengel, D. Gawley, A statistical rationalisation of Hartley's normalised eight-point algorithm, International Conference on Image Analysis and Processing, Mantova, Sept. 2003, pp. 152-157.

W. Chojnacki, M. J. Brooks, A. van den Hengel, D. Gawley, FNS and HEIV: relating two vision parameter estimation frameworks, International Conference on Image Analysis and Processing, Mantova, Sept. 2003, pp. 152-157.

A. van den Hengel, W. Chojnacki, M. J. Brooks, D. Gawley, A new constrained parameter estimator: experiments in fundamental matrix computation, In Proceedings of the 13th British Machine Vision Conference, September 2002, volume 2, pp 468-476.

W. Chojnacki, M. J. Brooks, D. Gawley, A. van den Hengel, A new approach to constrained parameter estimation applicable to some computer vision problems, In D. Suter, editor, Statistical Methods in Video Processing Workshop held in conjunction with ECCV'02, Copenhagen, Denmark, June 1-2, 2002.

W. Chojnacki, M. J. Brooks, A. van den Hengel, D. Gawley, A fast MLE-based method for estimating the fundamental matrix, International Conference on Image Processing, Thessaloniki, Greece, October 2001, pp 189-192.

M. J. Brooks, W. Chojnacki, D. Gawley, A. van den Hengel, What value covariance information in estimating vision parameters? International Conference on Computer Vision, Vancouver, July 2001, vol. 1, pp. 302-308.

M. J. Brooks, W. Chojnacki, A. van den Hengel, D. Gawley, Is covariance information useful in estimating vision parameters? SPIE Videometrics, San Jose, Jan. 2001, pp 195-203.

W. Chojnacki, M. J. Brooks, A. van den Hengel, A simplified treatment of Kanatani's renormalisation method, International Conference on Control, Automation, Robotics and Computer Vision (ICARCV 2000), Singapore, Dec. 2000, CD Proceedings: paper 196.

W. Chojnacki, M. J. Brooks, A. van den Hengel, D. Gawley, Estimating vision parameters given data with covariances, British Machine Vision Conference, Bristol, Sept. 2000, pp. 182-191.

W. Chojnacki, M. J. Brooks, A. van den Hengel, Rationalising the Renormalisation method of Kanatani, Second International Symposium on Advanced Concepts for Intelligent Vision Systems (ACIVS'00), Baden-Baden (Germany), Aug. 2000, pp. 13-19.

J. Magarey, A. Dick, M.J. Brooks, G. Newsam, A. van den Hengel, *Incorporating the epipolar constraint into a multiresolution algorithm for stereo image matching*, *Applied Informatics '99*, Innsbruck, Austria, Feb. 1999.

M.J. Brooks, W. Chojnacki, A. Dick, A. van den Hengel, K. Kanatani, N. Ohta, Incorporating optical flow information into a self-calibration procedure for a moving camera, SPIE Electronic Imaging '99, Videometrics VI, San Jose, Jan. 1999, CD Proceedings, Vol 3641, Paper #18.

M. J. Brooks, W. Chojnacki, A. van den Hengel, L. Baumela, Robust determination of structure from motion in the uncalibrated case, Fifth European Conference on Computer Vision (ECCV'98), June 1998, Freiburg, Germany, Lecture Notes in Computer Science (Vol. 1), 1406, Springer Verlag, pp. 281-295.

M. J. Brooks, W. Chojnacki, A. van den Hengel, L. Baumela, *3D reconstruction from optical flow generated by an uncalibrated camera undergoing unknown motion*,

International Workshop on Image Analysis and Information Fusion, November 1997, Adelaide, Australia.

M. J. Brooks, W. Chojnacki, A. van den Hengel, L. Baumela, *Estimation of structure from motion in the uncalibrated case*, IEICE Technical Group Meeting on Pattern Recognition and Media Understanding, December 18--19, 1997, Niigata, Japan.

M. J. Brooks, W. Chojnacki, A. van den Hengel, *Solving the shape from shading problem on the CM-5*, Proceedings Computer Architectures and Machine Perception, IEEE Society Press, September, 1995, Como, Italy, pp. 196-201.

Patents

Image Processing Method and Apparatus, Jeroen Vendrig, Anton van den Hengel, Anthony Dick, United States Patent Application 20080152236, No. 11/954164. Filing Date 11 December 2007

Method and System for Generating a 3D Model, Anton van den Hengel, Anthony Dick, Thorsten Thormählen, Ben Ward, and Philip H. S. Torr, Australian Provisional Patent Application No. 2007202157 and US Provisional Patent Application No. 60/917361. Filing Date 11th May, 2007.

Method & System for Generating a 3D Model from Images, Anton van den Hengel, Anthony Dick, Thorsten Thormählen, Ben Ward, and Philip H. S. Torr, US Provisional Patent Application No. 20070629 32341, Filing date 18 June, 2007

Network surveillance system, Anton van den Hengel, Anthony Dick, Michael Brooks, 2006, International PCT Application Number WO2007AU01782 20071120, Publication number WO2008061298. Filing date 20 November 2006, PCT publication date 29 May 2008.

Theses

Robust estimation of structure from motion in the uncalibrated case, A. van den Hengel, Ph. D. thesis, Adelaide University, May 2000.

Enhancing a direct method of determining shape from shading, A. van den Hengel, Masters thesis, Adelaide University, November 1994.

Invited
Research

Interactive modelling for all, Keynote to the International Workshop on Ubiquitous Virtual Reality (IWUVR2009), January 2009.

Presentations

VideoTrace: Simple interactive 3D modelling for all, Google Tech Talk, The Googleplex, Mountain View, California, April 2008, Video: <http://www.youtube.com/watch?v=YEM-XAeY4K0>

Simple interactive 3D modelling for all, Invited Talk, Congress on the Future of Engineering Software, Phoenix, Arizona, April 2008

VideoTrace: Simple interactive 3D modelling for all, Engineering School Seminar Series, The University of Iowa, Iowa City, Iowa, April 2008

Making effective use of large video surveillance networks, Mass Transport, Mass Gathering and Precinct Security Conference, Melbourne, Australia, November 2007.

VideoTrace: Rapid interactive scene modelling from video, Oxford University Robotics Research Group Seminar Series, July 2007.

VideoTrace: Rapid interactive scene modelling from video, Oxford-Brookes University Computer Science School Seminar Series, July 2007.

Interactive 3D modelling from image sets, ESAT PSI/VISICS Katholieke Universiteit Leuven, Belgium, June 2007

Technologies for effective monitoring of large surveillance camera networks, Tenix Investment Board presentation, December, 2006

Large-scale video surveillance, Department of the Prime Minister and Cabinet National

Security Science and Technology Unit CCTV Research and Industry workshop, November 2006

Tracking multiple targets through large video surveillance networks, Australasian Centre for Policing Research CCTV Workshop, October, 2006

Interactive 3D modelling from image sequences, University of South Australia Computer Science Seminar Series, September, 2006.

Technologies for effective monitoring of large surveillance camera networks, Research Network for a Secure Australia Security Technology Update Series, August, 2006

Topology estimation for large video surveillance networks, Research Network for a Secure Australia Counter Terrorism Closed Workshop, July, 2006

Interactive 3D modelling from image sequences, Carnegie Mellon University Entertainment Technology Centre, June, 2006

CGPCA - Constrained Generalised Principal Component Analysis, NICTA/RSISE Workshop on Computer Vision, August, 2005.

A unifying framework for approximated maximum likelihood estimation, Department of Engineering, University of Cambridge, November, 2004

Analysing and extending a number of approximated maximum likelihood estimation schemes, Robotics Research Group Seminar Series, Oxford University, November, 2004

Extending approximated maximum likelihood estimators for computer vision, Computer Science Department, University of London, September, 2003

Extending approximated maximum likelihood estimators for computer vision, ESAT-PSI/Visics, Katholieke Universiteit Leuven, Belgium, September, 2003

A new method for constrained estimation in computer vision, Department of Engineering, University of Cambridge, April, 2002

Maximum likelihood parameter estimation for a particular class of computer vision problems, ESAT-PSI/Visics, Katholieke Universiteit Leuven, Belgium, February, 2002

Recent advances in computer vision, South Australian Electrical Electronic Engineering branch of the Institute of Engineers Australia, August 2001.

Generating 3-dimensional models from video imagery, South Australian IEEE Chapter on Control, Aerospace and Electronics Systems, DSTO Salisbury, July, 1999.

Generating 3-dimensional models from video imagery, Adelaide University Computer Science Departmental seminar series, June 1999.

A statistical approach to estimating the egomotion of an uncalibrated camera from optical flow, A. van den Hengel and M. J. Brooks, Oxford University, June, 1998.

Structure and motion from uncalibrated optical flow sequences, Gunma University, Japan, December, 1997.

Research
Funding

Camera placement for large-scale surveillance networks
2009, Chief Investigator, Value: \$60k
Funding Source: DSTO

Combined shape and appearance descriptors for visual object recognition
2009 - 20011, Chief investigator, Value: \$220k
Funding source: ARC Discovery Program

Automated large-scale 3D reconstruction from multiple-station panoramas

2009, Chief Investigator, Value: \$20k
 Funding Source: DAAD G08 Scheme

Interactive 3D modelling from video
 2008 - 20010, Sole chief investigator, Value: \$225k
 Funding source: ARC Discovery Program

What am I looking at? Recognising objects from image sets,
 2008/9, First named chief investigator, Value: \$US 50k
 Funding source: Google

A visual technologies laboratory
 2007 - 2010, Sole chief investigator, Cash Value: \$1.54M
 Funding source: PSRF, DSTO, Tenix, Rising Sun Pictures

Sketching model-based scene reconstructions from video sequences
 2007/8, Sole chief investigator, Value: \$US 50k
 Funding source: Asian Office of Aerospace Research and Development

Terrain modelling from video
 2007, Sole chief investigator, Value: \$50,000
 Project Partner: DSTO

Colour constancy for video surveillance
 2007, Sole chief investigator
 Project Partner: DSTO, Value: \$100,000

Autocalibration without decimation
 2005 - 2007, Sole chief investigator, Value: \$223k
 Funding source: ARC Discovery Program

Video processing for pan-tilt-zoom cameras
 2004 - 2008, Sole chief investigator, Value: \$480,000
 Project Partner: Canon Information Systems Research Australia

Video processing for human computer interaction
 2004 - 2005, Sole chief investigator, Value: \$100,000
 Project Partner: Canon Information Systems Research Australia

Reconstructing terrain from video captured by unmanned aerial vehicles
 2004 - 2006, Sole chief investigator, Value: \$150,000
 Project Partner: DSTO

VisiSim: High resolution visual simulation
 2000 - 2002, Sole chief investigator, Value: \$100,000
 Project Partner: Sola Optical Australia

On line Student Evaluation of Teaching
 2000 - 2002, Chief investigator, Value: \$50,000
 Project Partner: The Advisory Centre for University Education

Research Supervision

Supervised 4 PhD students to completion with 7 ongoing

- *D. Gawley*, Robust maximum likelihood parameter estimation, completed 2004, post-doc in ACVT then Oxford
- *C. Shen*, Visual motion analysis by probabilistic reasoning with graphical models, completed 2005, post-doc at NICTA / ANU
- *J. Bastian*, A hardware accelerated space carving algorithm, completed 2008,

post-doc in ACVT

- *D. Pooley*, Synthesising new video streams from multiple sources, completed 2008, post-doc in ACVT
- *B. Ward*, Model-based semantic scene interpretation, *ongoing*
- *R. Hill*, Rig removal in movie post-production, *ongoing*
- *S. Nasilowski*, Synthesizing texture and geometry in video sequences, *ongoing*
- *D. Sale*, Rapid interactive scene modelling from video, *ongoing*
- *J. Millard*, Evolving structure and appearance for articulated structures from video, *ongoing*
- *Yanzhi Chen*, Content-based Image Retrieval
- *Zygmunt Szpak*, Robust structure from motion

Supervised over 40 honours and Masters theses to completion

Supervised 4 postdocs with 9 ongoing

- *Darren Gawley*, 2004 – 2007, went on to a post-doc at Oxford
- *Thorsten Thormaehlen*, 2005 – 2007, went on to found a Vision / Graphics group at Max-Planck-Institut für Informatik, Saarbrücken, Germany
- *Emanuel Zelnicker*, 2006 – 2007, went on to a post-doc at Queen Mary College, University of London
- *Pankaj Kumar*, 2006 – 2007, went on to another post-doc in ACVT with different supervisors

Current
Positions

Professor, School of Computer Science, University of Adelaide

Director, The Australian Centre for Visual Technologies

Director, Punchcard (The Mesh Pit Pty Ltd)

Deputy Chair, Adelaide SIGGRAPH Chapter

Board Member, SNAP Network Surveillance Pty Ltd

Board Member, Simulation S.A.

Area Chair, PSIVT2009, the 3rd Pacific-Rim Symposium on Image and Video Technology

Area Chair, International Conference on Digital Image Computing, Techniques and Applications 2009

Program Committees: Tenth International Conference on Control, Automation, Robotics and Vision, European Conference on Computer Vision 2008, International Conference on Digital Image Computing, Techniques and Applications 2008, British Machine Vision Conference 2008, Workshop on Embedded Middleware for Smart Camera and Visual Sensor Networks 2008, International Conference on Facets of Virtual Environments 2009.

Member, ARC Research Network for a Secure Australia

Member, ARC Research Network on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP)

Previous
Positions

Head, Video Surveillance & Analysis Program, The Cooperative Research Centre for Sensor Signal and Information Processing, 2003-2006

Deputy head, Image Analysis Program, The Cooperative Research Centre for Sensor Signal and Information Processing, 2002-2006

Technical committee chair, general, International Conference on Digital Image Computing, Techniques and Applications 2007

Chair, International Workshop on Parameter Estimation for Computer Vision Problems 2007

Acting Head, Image Analysis program, The Cooperative Research Centre for Sensor Signal and Information processing, during 2003, 4, and 5.

Dept. of Further Education, Employment, Science and Technology ICT Industry Research Forum invited representative, 2005

SACITT (South Australian Consortium for Information Technology & Telecommunications) Forum "Forging Research & Industry Links for Competitive Advantages" invited representative, 2005

Visiting Professor, Katholieke Universiteit Leuven, Belgium, 2004

Visiting Professor, Oxford-Brookes University, UK, 2004

Co-organiser, First Australia-Japan Advanced Workshop on Computer Vision 2003

Visiting Professor, Katholieke Universiteit Leuven, Belgium, 2001

University of Adelaide representative assessing education standards for courses offered at Sepang Institute of Technology, 2000