

Peter Kovesi

Computer Vision and Image Processing

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Research Interests

My main research area is in Computer Vision with specific interests in:

- Image enhancement and visualization.
- Analysis of geophysical and geological images.
- Local frequency domain image analysis.
- Feature detection, description and matching.
- Shape from texture, texture segmentation and recognition.
- Photogrammetry and Projective geometry.

Degrees

Bachelor of Engineering (Hons) in the Department of Mechanical Engineering at The University of Western Australia. Thesis entitled “Sheep Profile Modelling for Automated Shearing”, 1981.

Master of Engineering Science at The University of Western Australia. Thesis entitled “Kinematic Control of High Dexterity Manipulator Arms”, 1983.

PhD at The University of Western Australia. Thesis entitled “Invariant Measures of Image Features From Phase Information”, 1996. (Google Scholar citation count of 250)

Positions Held

April 2017 to present:

Principal Research Fellow (part-time) Centre for Exploration Targeting, School of Earth Sciences at The University of Western Australia.

April 2015 to April 2017t:

Adjunct Associate Professor in the Centre for Exploration Targeting, School of Earth Sciences, The University of Western Australia.

Independent consultant providing algorithm development for computer vision and image processing applications.

April 2010 to April 2015:

Principal Research Fellow (part-time) Centre for Exploration Targeting, School of Earth and Environment at The University of Western Australia.

August 2007 to April 2010:

Independent consultant providing algorithm development for computer vision and image processing applications.

Adjunct Senior Lecturer in the School of Computer Science & Software Engineering at The University of Western Australia.

July 1991 to July 2007:

Lecturer and, from 1999, Senior Lecturer in the School of Computer Science & Software Engineering at The University of Western Australia.

1984 to July 1991:

Research engineer with the Automated Sheep Shearing Group in the Department of Mechanical Engineering at the University of Western Australia. During this period I was involved in a wide range of robotics research activities, and I was responsible for the group's vision research. During the latter years of my time with the project I led the group's software development programme.

Visiting positions

The Stanford Research Institute Robotics Research Group as an International Fellow in 1986.

The Department of Engineering Science, Oxford University with the Robotics Group as a visiting scholar in 1990/91.

INRIA Sophia-Antipolis, France with the ROBOTVIS group under a French Government Fellowship in 1995.

Department of Electrical and Computer Engineering, University of Canterbury, NZ as a visiting academic in 2001.

Department of Systems Engineering, ANU as a visiting academic in 2001 and also 2005.

School of Computer Science, University of Adelaide as a visiting academic in 2005.

Publications

Journal Papers

1. Yathunathan Vasuki, Eun-Jung Holden, Peter Kovese and Steven Micklethwaite. "An interactive image segmentation method for lithological boundary detection: A rapid mapping tool for geologists", *Computers and Geosciences* 100, pp 27–40. 2017.
2. Tom Horrocks, Daniel Wedge, Eun-Jung Holden, Peter Kovese, Nick Clarke and John Vann. "Classification of gold-bearing particles using visual cues and cost-sensitive machine learning", *Mathematical Geosciences* 47, 5, pp 521–545. 2015.
3. Sam Thiele, Steven Micklethwaite, Paul Bourke, Michael Verrall and Peter Kovese. "Insights into the mechanics of en-échelon sigmoidal vein formation using ultra-high resolution photogrammetry and computed tomography". *Journal of Structural Geology*. 77, pp 27–44. 2015.
DOI:10.1016/j.jsg.2015.05.006
4. Peter Kovese, Eun-Jung Holden and Jason Wong. "Interactive Multi-Image Blending for Visualization and Interpretation," *Computers & Geosciences* 72, pp 147–155. 2014.
DOI: 10.1016/j.cageo.2014.07.010
5. Yathunathan Vasuki, Eun-Jung Holden, Peter Kovese and Steven Micklethwaite. "Semi-automatic mapping of geological Structures using UAV-based photogrammetric data: An image analysis approach," *Computers & Geosciences* 69 pp 22–32. 2014. DOI: 10.1016/j.cageo.2014.04.012
(Google Scholar citation count of 90)
6. Jason C. Wong, Eun-Jung Holden, Peter Kovese, T. Campbell McCuaig and Jon Hronsky. "CET exSim: Mineral exploration experience via simulation," *Exploration Geophysics* 44(4) pp 272–281. 2013. DOI: 10.1071/EG12067
7. E-J. Holden, J.C. Wong, P. Kovese, D. Wedge, M. Dentith and L. Bagas. "Identifying structural complexity in aeromagnetic data: An image analysis approach to greenfields gold exploration", *Ore Geology Reviews*, 46, pp. 47-59. 2012.

8. Eun-Jung Holden, Shih Ching Fu, Peter Kovesei, Michael Dentith, Barry Bourne and Matthew Hope. “Automatic identification of responses from porphyry intrusive systems within magnetic data using image analysis”. *Journal of Applied Geophysics*.74 (2011) pp 255–262.
9. Eun-Jung Holden, Michael Dentith and Peter Kovesei. “Towards the Automated Analysis of Regional Aeromagnetic Data to Identify Regions Prospective for Gold Deposits”. *Computers & Geosciences*. Volume 34, Issue 11, pp 1505–1513. 2008. (Google Scholar citation count of 40)
10. Wedge, D. J., Hunyh, D. Q., Kovesei, P. “Motion Guided Video Sequence Synchronization”. *Lecture Notes in Computer Science, II* pp 832–841. 2006.
11. Wirth, M. A. and Kovesei, P. “MATLAB as an Introductory Programming Language”. *Computer Applications in Engineering Education* Wiley InterScience. Vol. 14, Issue 1, pp 20–30. 2006.
12. Khoh, C. W. and Kovesei, P. D. “Rotating the Impossible Rectangle”. *Leonardo* MIT Press. Vol. 34, No 3, pp 197–198. 2001.
13. Kovesei, P. D., “Phase Congruency: A Low-Level Image Invariant”. *Psychological Research Psychologische Forschung*. Springer-Verlag. Volume 64, Number 2, pp 136–148. 2000. (Google Scholar citation count of 290)
14. Kovesei, P. D., “Image Features From Phase Congruency”. *Videre: Journal of Computer Vision Research*, MIT Press. Volume 1, Number 3, Summer 1999. (Google Scholar citation count of 1340)
15. C. J. Pudney, M. J. Robins, B. J. Robbins and P. D. Kovesei, “Surface Detection in 3D Confocal Microscope Images via Local Energy and Ridge Tracing”. *The Journal of Computer Assisted Microscopy*, vol. 8, no. 1, pages 5–20, 1996. (Google Scholar citation count of 26)
16. Cowan, C. K. and Kovesei, P. D., “Automatic Sensor Placement From Vision Task Requirements”, *IEEE Transactions on Pattern Analysis and Machine Intelligence*. Vol 10, No 3, May 1988, pp 407–416. (Google Scholar citation count of 365)
17. Trevelyan, J. P., Kovesei, P. D., Ong, M. C. H., and Elford, D. “ET - a Wrist Mechanism Without Singularities”, *International Journal of Robotics Research*. MIT Press. Vol 4, No 4, pp. 71–85. 1986. (Google Scholar citation count of 49)

Refereed Conference Papers

18. Peter Kovesei. “Phase Preserving Tone Mapping of Non-Photographic High Dynamic Range Images”. *Proceedings of the Australian Pattern Recognition Society Conference on Digital Image Computing Techniques and Applications (DICTA 2012)*. Fremantle. 2012.
19. Daniel Wedge, Yathunathan Sivarajah, Eun-Jung Holden, Peter Kovesei, Paul Johnston and Christopher Wijns. “Visualising full tensor gradient gravity data using texture and colour cues”, *Proceedings of the Australian Pattern Recognition Society Conference on Digital Image Computing Techniques and Applications (DICTA2012)*. Fremantle. 2012.
20. Sivarajah, Y., Holden, E-J., Kovesei, P., Togneri, R., Tan, T. and Price, G. “Studying the Impact of Feature Saliency for Geoscientific Target Detection using Electroencephalography”, *Proceedings of the Australian Pattern Recognition Society Conference on Digital Image Computing Techniques and Applications (DICTA2012)*. Fremantle. 2012.
21. Peter Kovesei. “Fast Almost-Gaussian Filtering”. *Proceedings of the Australian Pattern Recognition Society Conference on Digital Image Computing Techniques and Applications (DICTA 2010)*. Sydney. 2010. (Google Scholar citation count of 28)
22. Shih Ching Fu, and Peter Kovesei. “Robust Extraction of Optic Flow Differentials for Surface Reconstruction”. *Proceedings 2010 Digital Image Computing: Techniques and Applications*. Kellenberger, P. (ed.). Sydney, Australia. New Jersey, USA: IEEE, Vol. E4271, pp 468–473. 2010.

23. Eun-Jung Holden, Peter Kovesei, Michael Dentith, Daniel Wedge, Jason Wong and Shih Ching Fu. "Detection of Regions of Structural Complexity within Aeromagnetic Data using Image Analysis". *Proceedings: 25th International Conference of Image and Vision Computing New Zealand*. Bainbridge-Smith, A. and Green, R. (eds.). Queenstown, New Zealand: IEEE, 2010.
24. Peter Kovesei. "Video Surveillance: Legally Blind?". *Proceedings of the Australian Pattern Recognition Society Conference on Digital Image Computing Techniques and Applications (DICTA 2009)*. Melbourne. 2009.
25. Christine Amelia Jenkins, Jonathan Jia Ming Wan, Eun-Jung Holden, Michael Dentith, Peter Kovesei, and Mike Haederle. "Application of Radial Symmetry for Caldera Detection". *Proceedings of the Australian Pattern Recognition Society Conference on Digital Image Computing: Techniques and Applications, (DICTA '08)*. Canberra, 1-3 Dec. 2008. pp 142-147.
26. Chong Hua Fam, Eun-Jung Holden, Mike Dentith, and Peter Kovesei. "Towards the Automated Mapping of Linear Anomalies within Aeromagnetic Datasets". *Proceedings of the Australian Pattern Recognition Society Conference on Digital Image Computing Techniques and Applications (DICTA 2007)*. Adelaide. 2007 pp 424-429.
27. Wong, T.Y., Kovesei P.D., Datta, A. "Projective Transformations for Image Transition Animations". *14th International Conference on Image Analysis and Processing*. Washinton, DC, USA. pp 493-500. 2007.
28. Daniel Wedge, Du Huynh, and Peter Kovesei. "Using Space-Time Interest Points for Video Sequence Synchronization". *IAPR Conference on Machine Vision Applications* pp 190-194. Tokyo, 16-18 May. 2007. (Google Scholar citation count of 19)
29. Peter Kovesei, "Shapelets Correlated with Surface Normals Produce Surfaces". *10th IEEE International Conference on Computer Vision*. Beijing. pp 994-1001. 2005 (Google Scholar citation count of 160)
30. Daniel Wedge, Peter Kovesei, and Du Huynh. "Trajectory Based Video Sequence Synchronization". *The Australian Pattern Recognition Society Conference: DICTA 2005* Cairns,. Electronic Publication, I.E.E.E. Computer Society Press, p C.D. (2005)
31. Wong, T.Y., Kovesei, P.D. and Datta, A. "Towards Quantitative Measures of Image Morphing Quality". *The Australian Pattern Recognition Society Conference: DICTA 2005* Cairns,. Electronic Publication, I.E.E.E. Computer Society Press, p C.D. (2005)
32. Daniel Wedge, Du Huynh, and Peter Kovesei. "Tracking Footballs Through Clutter in Broadcast Digital Videos". *Image and Vision Computing New Zealand '04* Akaroa, New Zealand 2004. pp 155-160.
33. Angeline Loh and Peter Kovesei, "Estimation of Surface Normals of a Curved Surface Using Texture". *The Australian Pattern Recognition Society Conference: DICTA 2003*, Sydney. December 2003. pp 155-164.
34. Peter Kovesei, "Phase Congruency Detects Corners and Edges". *The Australian Pattern Recognition Society Conference: DICTA 2003*, Sydney. December 2003. pp 309-318. (Google Scholar citation count of 435)
35. Peter Kovesei, "Surface Normals to Surfaces via Shapelets". *Proceedings Australia-Japan Advanced Workshop on Computer Vision*, 9-11 September 2003, Adelaide. pp 101-108.
36. Kristin J. McLoughlin, Philip J. Bones, and Peter D. Kovesei. "Connective tissue representation for detection of microcalcifications in digital mammograms," *The SPIE Medical Imaging Conference, San Diego*, 23-28 February 2002.
37. Peter Kovesei, "Edges Are Not Just Steps". *Proceedings of ACCV2002 The Fifth Asian Conference on Computer Vision*, Melbourne Jan 22-25, 2002. pp 822-827. (Google Scholar citation count of 120)

38. Kristin J. McLoughlin, Philip J. Bones and Peter D. Kovesi, "Detection of microcalcifications in digital mammograms", *Proceedings of Image and Vision Computing '01*, University of Otago, Dunedin, New Zealand, 26–28 November 2001. pp 259–264.
39. Peter Kovesi, "Phase Preserving Denoising of Images". *The Australian Pattern Recognition Society Conference: DICTA'99*. pp 212–217. December 1999. (Google Scholar citation count of 160)
40. Gian Paolo Lorenzetto and Peter Kovesi, "A Phase Based Image Comparison Technique". *The Australian Pattern Recognition Society Conference: DICTA'99*. pp 52–56. December 1999.
41. Peter Kovesi. "Symmetry and Asymmetry from Local Phase". *10th Australian Joint Conference on Artificial Intelligence*. Poster proceedings, pp 185–190. 2-4th December 1997. Perth. (Google Scholar citation count of 280)
42. Rajiv Ellepola and Peter Kovesi. "Mobile Robot Navigation Using Recursive Motion Control". *Second EUROMICRO Workshop on Advanced Robotics, EUROBOT'97* 22-24th October 1997. Brescia, Italy.
43. Leigh M. Smith and Peter Kovesi. "A Continuous Time-Frequency Approach to Representing Rhythmic Strata". *Fourth International Conference on Music Perception and Cognition*, pp 197–202. August 1996. Montreal.
44. Rajiv Ellepola and Peter Kovesi. "Mobile Robot Navigation in a Semi-Structured Environment". *Fourth International Conference on Control, Automation, Robotics and Vision*, pp 914–918. December 1996. Singapore.
45. Rajiv Ellepola, Peter Kovesi and Ken Wessen. "Mobile Robot Navigation using Passive Beacons and Active Sensors". *The Australian Pattern Recognition Society Conference: DICTA'95*. pp 679–685. December 1995. Brisbane.
46. Peter Kovesi. "Image Correlation From Local Frequency Information". *The Australian Pattern Recognition Society Conference: DICTA'95*. pp 336–341. December 1995. Brisbane.
47. C. J. Pudney, P. D. Kovesi and B. J. Robbins, "A 3D Local Energy Surface Detector for Confocal Microscope Images". *The Third Australian and New Zealand Conference on Intelligent Information Systems*, pp 7–12. November 1995. Perth, Western Australia. Published by IEEE.
48. C. J. Pudney, P. D. Kovesi and B. J. Robbins, "Feature Detection Using Oriented Local Energy for 3D Confocal Microscope Images". *The International Computer Science Conference, ICSC'95*, pp 274–282. December 1995. Hong Kong. Published by Springer Verlag.
49. Kovesi, P. D. and Trevelyan, J. P. "Using Visual Doppler Effects to Deduce Image Motion", *The Australian Pattern Recognition Society, Conference on Digital Image Computing: Techniques and Applications*, Sydney, 8-10 December 1993. pp. 493–500.
50. Kovesi, P. D. "A Dimensionless Measure of Edge Significance from Phase Congruency Calculated via Wavelets", *The First New Zealand Conference on Image and Vision Computing*, Auckland, 16-18 August 1993, pp. 87–94.
51. Kovesi, P. D. "A Dimensionless Measure of Edge Significance", *The Australian Pattern Recognition Society, Conference on Digital Image Computing: Techniques and Applications*, Melbourne, 4-6 December 1991. pp. 281–288.
52. Kovesi, P. D., "Imaginary Kinematics". *The Second International Workshop on Advances in Robot Kinematics*, Linz, Austria, 10-12th September 1990. S.Stifter, J.Lenarcic (eds.), Springer-Verlag 1991. pp. 55–62.
53. Beckley, L., Kovesi, P., and Owens, R., "The Use of Imaginary Actuators in Kinematically Redundant Mechanisms for Obstacle Avoidance", *Proc. Third National Conference on Robotics*, Melbourne, 3-6th June 1990.

54. Velletri, P., and Kovesei, P. D., “Controlling Robot Manipulators at Motion Limits”. *Proc. Third National Conference on Robotics*, Melbourne, 3-6th June 1990.
55. Kovesei, P. D., and Walker, G. J., “Vision Generation of Surface Models for Guiding a Sheep Shearing Robot”. *Proceedings of The International Symposium and Exposition on Robots*, Sydney, 6-10th November 1988.
56. Trevelyan, J. P., Nelson, M., Kovesei, P. D., “Adaptive Motion Sequencing for Process Robots”. *4th International Symposium on Robotics Research*, Santa Cruz, USA., September 1987. MIT Press.
57. Cowan, C. K. and Kovesei, P. D., “Sensor Placement for Object Visibility”, *Proc. 1987 Manufacturing Systems Research Conference*. Ann Arbor, Michigan, October 1987.
58. Kovesei, P. D. “Collision Avoidance”, *Proceedings of the 2nd International Conference on Advanced Robotics*, Tokyo, 9th-10th September 1985. pp. 51–58.
59. Trevelyan, J. P., Kovesei, P. D., and Ong, M. C. H. “Motion Control for a Sheep Shearing Robot”, *1st International Conference on Robotics Research*, Ed. J.M. Brady, M.I.T. Press, 1983.
60. Kovesei, P. D. “Control of Kinematically Redundant Robots by the use of the Pseudo-inverse”, Australian Mathematical Society Applied Mathematics Conference, Perth, February 1983. Awarded the T.M. Cherry prize for the best student paper.

Rejected Paper

61. Peter Kovesei. “Good Colour Maps: How to Design Them.” arXiv:1509.03700 [cs.GR] 2015. (Google Scholar citation count of 26) (Also, see public domain software below)

Public Domain Software

62. Peter Kovesei “MATLAB and Octave Functions for Computer Vision and Image Processing”
<http://peterkovesei.com/matlabfns/>
 This website contains approximately 200 MATLAB functions and is widely used in the international computer vision community. If one performs a Google search for ‘Computer Vision Code’ the site will be ranked highly on the first page of results, possibly first. The site is accessed by about 2000 distinct visitors each week and has a Google Scholar citation count of approximately 640.
63. Libor Masek and Peter Kovesei “MATLAB Source Code for a Biometric Identification System Based on Iris Patterns”
<http://peterkovesei.com/studentprojects/libor/sourcecode.html>
 (Google Scholar citation count of 510).
64. Peter Kovesei. “CET Perceptually Uniform Colour Maps”.
<http://peterkovesei.com/projects/colourmaps/>
 This website presents a collection of colour maps that have been designed to have uniform perceptual contrast over their whole range. They follow the design techniques described in my paper “Good Colour Maps: How to Design Them”. These colour maps are now included in at least four commercial visualisation software packages. Others have ported the colour maps to make them available for visualisation packages in the Python and R languages. Over 1500 copies of the colour maps in ArcGIS format have been downloaded.
65. Peter Kovesei. “Perceptual Colour Maps” Julia software package.
 This package provides a collection of functions for the generation of perceptually uniform colour maps. It also includes function for the controlled rendering of pseudo-colour images with diverging and cyclic colour maps, the rendering of relief images, and the rendering of perceptually equalised ternary images.
<https://github.com/peterkovesei/PerceptualColourMaps.jl>

66. Peter Kovesi. “Image Projective Geometry” Julia software package.
This package provides an extensive set of functions that support projective geometry calculations for computer vision. It also includes functions for robust fitting of models to data along with a number of supporting general image processing functions.
<https://github.com/peterkovesi/ImageProjectiveGeometry.jl>
67. Peter Kovesi. “Image Phase Congruency” Julia software package.
This package provides an extensive set of functions that exploit the importance of phase information in our perception of images. The functions form two main groups: Functions that detect specific patterns of local phase for the purpose of feature detection, and functions that enhance an image in a way that does not corrupt the local phase so that our perception of important features are not disrupted.
<https://github.com/peterkovesi/ImagePhaseCongruency.jl>

Commercial Software

68. CET Grid Analysis extension for Geosoft Oasis montaj
<http://www.geosoft.com/products/software-extensions/cet-grid-analysis>
Released March 2010.
69. CET Porphyry Detection extension for Geosoft Oasis montaj
<http://www.geosoft.com/products/software-extensions/cet-porphyry-detection>
Released July 2011.
- Both packages were developed with Prof. Mike Dentith, A/Prof. Eun-Jung Holden, Dr Jason Wong and Shih Ching Fu at the Centre for Exploration Targeting, School of Earth and Environment, UWA.

Patents

70. Trevelyan, J.P., Elford, D., Ong, M.C.H. and Kovesi, P.D. “Wrist Mechanism for Robotic Manipulators” U.S. Patent No 4862759 September 5 1989
71. Kovesi, P.D., Petridis, E.D. and Mohan, T. “Image detection and processing for building control”, US Patent Application. 14/016,055 March 13 2014.

Other

Shaun Tan. “Hours to Sunset”. 2013. This is a glass mosaic sundial 8m wide by 4.6m high mounted on the west wall of the University of Western Australia Club. I suggested the concept of using the west facing wall for a sundial to count the hours to sunset, and I calculated the sundial’s lines upon which Shaun Tan created the design. Ian Middleton, artisan tiler, executed the work. Susan Marie was the project coordinator. For more information please visit
<http://www.culturalprecinct.uwa.edu.au/about/hours-to-sunset>

Graduate Supervision

Current PhD student:

Vasuki Yathunathan “Semi-automatic geological structure analysis using photogrammetric data”
(supervised with Eun-Jung Holden and Steven Micklethwaite)

PhD students supervised:

Bob Hastings “Investigation of Some Statistical Properties of Fingerprint Patterns”
(supervised with Du Huynh) (2010)

Tzu Yen Wong “Image Transition Techniques Using Projective Geometry”

	(supervised with Amitava Datta) (2009)
Daniel Wedge	“Video Sequence Synchronisation” (supervised with Du Huynh) (2008)
Angeline Loh	“The Recovery of 3-D Structure Using Visual Texture Patterns” (2006)
Leigh Smith	“A Multiresolution Time-Frequency Analysis and Interpretation of Musical Rhythm” (2000)

MSc students supervised:

Rajiv Ellepola	“Mobile Robot Navigation in a Semi-Structured Indoor Environment Using Passive Visual Beacons and Active Sensors”. (1996)
Andrew Bettenay	(MEngSc) “The Development of an Integrated Surface Modelling Environment for Robot Trajectory Generation” (1990) (co-supervised with Prof Brian Stone, Mechanical Engineering)

Grants

- Dr Steven Micklethwaite, Dr Nicolas Thebaud, Dr Peter Kovesi, Mr Paul Bourke 2013, “Development of Digital Techniques for Open Pit Mapping, Phoenix Gold”, Phoenix Gold Ltd.
- Associate Professor Eun-Jung Holden, Dr Daniel Wedge, Dr Peter Kovesi, Professor Adrian Baddeley 2013, “Towards Understanding Particle Characteristics for Automated Ore Sorting - A Concept Study”, AngloGold Ashanti Australia Limited.
- Dr Daniel Wedge, Associate Professor Eun-Jung Holden, Dr Peter Kovesi 2013, “Development of an automated image analysis method for sedimentary grain size distribution estimation - a feasibility study”, Western Australian Energy Research Alliance WAERA ex Woodside R2D3.
- Professor Mark Jessell, Associate Professor Eun-Jung Holden, Professor Adrian Baddeley, Dr Peter Kovesi, Doctor Laurent Ailleres, Dr Daniel Wedge, Dr Mark Lindsay, Dr Klauss Gessner, Dr Jonathan Hronsky 2013, “Reducing 3D Geological Uncertainty via Improved Data Interpretation Methods”, ARC Linkage Project LP140100267.
- Associate Professor Eun-Jung Holden, Dr Peter Kovesi, Dr Jason Wong, Dr Daniel Wedge, Associate Professor Thompson McCuaig, Dr Jon Hronsky 2012, “Integrated Visualisation of Large Volumes of GSWA Data: Groundwork for the Integrated Exploration Platform”, Geological Survey of Western Australia.
- Associate Professor Eun-Jung Holden, Dr Peter Kovesi 2011, “Development of Porphyry Detection GXs based on Radial Symmetry and Magnetic Contrast Transforms”, Barrick Gold of Australia Ltd.
- Associate Professor Eun-Jung Holden, Dr Peter Kovesi 2011, “An Automatic Detection System for the Porphyry Magnetic Signatures using Image Analysis Techniques”, Barrick Gold of Australia Ltd.
- Dr Jo Ward, Dr Ken Harrison and Dr Peter Kovesi 1998, “Wavelet Techniques for Image Compression”, Murdoch Small ARC Grant.
- Dr Peter Kovesi 1997, “Analysis of Rhythm Perception via Local Phase”, UWA Small ARC Grant.
- Dr Peter Kovesi 1995, French Government Fellowship.
- Robyn Owens, Peter Kovesi and Richard Thomas 1993, “Image Understanding and Visual Communication” Digital External Research Programme.
- Peter Kovesi 1990, Gledden Travel Award.