CURRICULUM VITAE

Professor Edwin Hancock D.Sc., FIAPR, FIET, FInstP, FBCS.

A: GENERAL

Full name:	Edwin Robert Hancock
Date of birth:	24th June 1956
Place of work:	Department of Computer Science, University of York, UK.
Career:	Lecturer, 1 July 1991
	Senior Lecturer, 1 October 1997
	Reader, 1 October 1998
	Professor, 1 December 1998
	Professor band 2, 1 October 2006
	Professor band 3, 1 October 2009

A2: Previous appointments

1981 - 1985	Senior Research Associate, Rutherford Appleton Laboratory. *Postdoctoral research in high energy physics working at Stanford;* *Organiser of the UK High Energy Physics Forum.*
1982 - 1991	Course Tutor, Open University *Teaching courses on relativity and astronomy.*
1985 - 1991	Higher Scientific Officer, Rutherford Appleton Laboratory. *Research in computer vision and pattern recognition;* *Secretary of the DTI-SERC Alvey Speech and Natural Language Committee.* *Secretary of Computational Modelling Division Management Committee.*
1989 - 1991	Associate Lecturer, Department of Electrical Engineering, University of Surrey. *Teaching electrical engineering.*

A3: Qualifications

First degree	B.Sc.(Honours) Physics University of Durham, 1977
Higher degrees	Ph.D. in high-energy physics *"The $\pi\pi\Lambda$ Channel from K^-p reaction in the $\Lambda(1690)$ region"* University of Durham, 1981 (Supervisor: Desmond Evans)
	D.Sc. in Computer Science *Contributions to Computer Vision and Pattern Recognition* University of Durham, 2008.

B: RESEARCH

B1: Publications

Publication Statistics: I have published 134 journal papers, 482 conference papers and 2 theses, and have edited 6 proceedings volumes and 5 journal special editions. The counts for different conferences and journals are as follows:

Journals: IEEE TPAMI (18), IJCV (4), TIP (5), Pattern Recognition (39), CVIU (8), Pattern Recognition Letters (14), Image and Vision Computing (13), Phys. Rev. Letts (3), Phys. Rev. D (9), and one each in TNN, QIP, Evolutionary Computation, Medical Image Analysis.

Conferences: ICCV (9), CVPR (21), NIPS(5), ECCV (13), MICCAI (2), BMVC (38), ICPR (67), ICIP (32), SSPR (42), CAIP (29), ICIAP (31).

Accoriding to the most recent ARC ERA journal and conference rankings (February 2010), 68 of my papers appear in journals rated A* (top 5%), 28 in journals rated A (next 15%) and 95 appear in conferences rated A (top 20%).

B1i: Journal Articles

1 K. Abe *et al*, "Charm Photo-production Cross-Section at 20 GeV", *Physical Review Letters*, **51**, pp. 156–159, 1982.

2 K. Abe *et al*, "Lifetimes of Charmed Particles Produced in a 20 GeV γp Experiment", *Physical Review Letters*, **48**, pp. 1526-1529, 1982.

3 K. Abe *et al*, "Charm Photo-production at 20 GeV", *Physical Review*, **D30**, pp 1–21, 1984.

4 K. Abe *et al*, "Search for a Threshold Enhancement in the γp $\rightarrow$ Charmed Baryon + Charmed Meson Cross-Section", *Physical Review*, **D30**, pp. 694-696, 1984.

5 K. Abe *et al*, "Inclusive Photo-production of Neutral Strange Particles at 20 GeV", *Physical Review*, **D29**, pp. 1877–1887, 1984.

6 K. Abe *et al*, "Test of s-Channel Helicity Conservation in Inelastic ρ_0 Diffraction in 20 GeV Photo-production", *Physical Review*, **D32**, pp. 2288–2293, 1985.

7 K. Abe *et al*, “Inclusive Photo-production of Strange Baryons at 20 GeV”, *Physical Review*, **D32**, pp. 2869–2882, 1985.

8 K. Abe *et al*, “Study of the $\rho'(1600)$ Mass Region using $\gamma p \to \pi^+\pi^- p$ at 20 GeV”, *Physical Review Letters*, **53**, pp. 751–754, 1985.

9 K. Abe *et al*, “Lifetimes, Cross-Sections and Production Mechanisms of Charmed Particles Produced by 20 GeV Photons”, *Physical Review*, **D33**, pp 1–18, 1986.

10 J. Kittler and E. R. Hancock, “Contextual Decision Rule for Region Analysis”, *Image and Vision Computing*, **5**, pp.145–155, 1987.

11 J. Brau et al, “Production and Decay Properties of the $\omega\pi^0$ State at 1250 MeV/c^2 Produced by 20 GeV Polarized Photons on Hydrogen”, *Physical Review* , **D37**, pp. 2379–2390, 1988.

12 V. R. O’ Dell et al, “Forward Charge Asymmetry in 20 GeV γ p Reactions”, *Physical Review*, **D36**, pp. 1–7, 1987.

13 J. Kittler and E. R. Hancock, “Combining Evidence in Probabilistic Relaxation”, *International Journal of Pattern Recognition and Artificial Intelligence*, **3**, pp. 29–52, 1989.

14 E. R. Hancock and K.D. Baker, “Editorial: The First European Conference on Computer Vision”, *Image and Vision Computing* , **8**, pp. 259-260, 1990.

15 G. T. Condo et al, “Charge-exchange photo-production of the $a_2^-(1320)$ in association with Δ^{++} at 19.3 GeV/c^2”, *Physical Review D*, **42**,pp. 3317–3323, 1990.

16 E. R. Hancock and J. Kittler, “Discrete Relaxation”, *Pattern Recognition*, **23**, pp. 711–733, 1990.

17 E. R. Hancock and J. Kittler, “Edge-labelling using Dictionary-based Probabilistic Relaxation”, *IEEE Transactions on Pattern Analysis and Machine Intelligence*,**12**, pp. 165–181 1990.

18 G.T. Condo *et al*, “Photoproduction of an isovector $\rho - \pi$ state at 1775 MeV”, *Physical Review*, **D43**, pp. 2787–2791, 1991.

19 E. R. Hancock, “Editorial”, *Image and Vision Computing*, **13**, pp. 319–318, 1995.

20 R. C. Wilson, A. N. Evans and E. R. Hancock, “Relational Matching by Discrete Relaxation”, *Image and Vision Computing*, **13** , pp. 411–422, 1995.

21 N. G. Sharp and E. R. Hancock, "Feature Tracking by Multi-frame Relaxation", *Image and Vision Computing*, **13**, pp. 637–644, 1995.

22 R.C. Wilson and E.R. Hancock, "A Bayesian Compatibility Model for Graph Matching", *Pattern Recognition Letters*, **17**, pp. 263–276, 1996.

23 M. L. Williams, R. C. Wilson, and E. R. Hancock, "Multiple Graph Matching with Bayesian Inference", *Pattern Recognition Letters*, **18**, pp. 1275–1281, 1997.

24 S. Moss and E. R. Hancock, "Multiple Line-template Matching with the EM Algorithm", *Pattern Recognition Letters*, **18**, pp. 1283–1292, 1997.

25 R. Myers and E. R. Hancock, "Genetic Algorithm Parameter Sets for Line Labelling", *Pattern Recognition Letters*, **18**, pp. 1363–1372, 1997.

26* R.C. Wilson and E.R. Hancock, "Structural Matching by Discrete Relaxation", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **19**, No.6, pp. 634-648, 1997.

27 S. Moss and E.R. Hancock, "Registering Incomplete Radar Images using the EM Algorithm", *Image and Vision Computing*, **15**, pp. 637–648, 1997.

28 J.A.F. Leite and E.R. Hancock, "Iterative Curve Organisation with the EM Algorithm", *Pattern Recognition Letters*, **18**, pp. 143– 155, 1997.

29 A.D.J. Cross, R.C. Wilson and E.R. Hancock, "Inexact Graph Matching using Genetic Search", *Pattern Recognition*, **30**, pp. 953-970, 1997.

30 A.M. Finch, R.C. Wilson and E.R. Hancock, "Matching Delaunay Graphs", *Pattern Recognition*, **30**, pp. 123–140, 1997.

31 A.M. Finch, R.C. Wilson and E.R. Hancock, "Symbolic Graph Matching with the EM Algorithm", *Pattern Recognition*, **31**, pp. 1777–1790, 1998.

32 E.R. Hancock and M. Pelillo, "A Bayesian Interpretation for the Exponential Correlation Associative Memory", *Pattern Recognition Letters*, **19**, pp. 149–159, 1998.

33 N.G Sharp and E.R. Hancock, "Density Propagation for Surface Tracking", *Pattern Recognition Letters*, **19**, pp. 177-188, 1998.

34 R.C. Wilson, A.D.J. Cross and E.R. Hancock, "Structural Matching with Active Triangulations", *Computer Vision and Image Understanding*, **72**, pp. 21–38, 1998.

35 A.D.J. Cross and E.R. Hancock, "'Recognising Building Patterns using Matched Filters and Genetic Search", *ISPRS Journal of Photogrammetry and Remote Sensing*, **53**, pp. 95–107, 1998.

36 A.M. Finch, R.C. Wilson and E.R. Hancock, "An energy function and continuous edit process for graph matching", *Neural Computation*, **10**, pp. 1873–1894, 1998.

37 A.D.J. Cross and E.R. Hancock, "Graph Matching with a Dual Step EM Algorithm", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **20**, pp. 1236–1253,, 1998.

38 P. L Worthington and Edwin R Hancock, "New Constraints on Data-Closeness and Needle Map Consistency for Shape from Shaping", *IEEE Transactions on Pattern Analysis and Machine Intelligence,* IEEE Computer Society Press, **21**, pp. 1250-1267, 1999.

39 P.L.Worthington,E.R.Hancock, "Needle Map Recovery using Robust Regularizers", *Image and Vision Computing*, **17**, pp. 545–557, 1999.

40 R. C. Wilson and E. R. Hancock, "Graph matching with hierarchical discrete relaxation", *Pattern Recognition Letters*, **20**, pp. 1041-1052, 1999.

41 R. C. Wilson and E.R. Hancock, "Consistent Topographic Surface Labelling", *Pattern Recognition*, **32**, pp. 1211-1223, 1999.

42 M. L. Williams and R. C. Wilson and E.R. Hancock, "Deterministic Search For Relational Graph Matching", *Pattern Recognition*, **32**, pp. 1255-1271, 1999.

43 S. Moss and Richard C Wilson and E. R Hancock, "A mixture model for pose clustering", *Pattern Recognition Letters*, **20**, pp. 1093-1101, 1999.

44 B. Luo A.D.J. Cross and E.R. Hancock, "Corner Detection via Topographic Analysis of Vector-Potential", *Pattern Recognition Letters*, **20** pp. 635-650, 1999.

45 B. Huet and E. R Hancock, "Shape recognition from large image libraries by inexact graph matching", *Pattern Recognition Letters*, **20**, pp. 1259-1269, 1999.

46 B. Huet and E. R Hancock, "Line Pattern Retrieval Using Relational Histograms", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **21**, pp. 1363-1370, 1999.

47 A.D.J. Cross and E.R. Hancock, "Scale Space Vector Fields for Symmetry Detection", *Image and Vision Computing*, **17**, pp. 337-345, 1999.

48 R. Myers, R.C. Wilson and E.R. Hancock, "Bayesian Graph Edit Distance", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **22**, pp 628-635, 2000.

49 A.D.J. Cross and E.R.Hancock, "Convergence of a Hill Climbing Genetic Algorithm for Graph Matching", *Pattern Recognition*, **33**, pp 1863-1880, 2000.

50 E. Ribeiro and E.R. Hancock, "Improved Orientation Estimation for Texture Planes using Multiple Vanishing Points", *Pattern Recognition*, **33**, pp. 1599-1610, 2000.

51 E. Ribeiro and E.R. Hancock, "Estimating the 3-D Orientation of texture planes using local spectral analysis", *Image and Vision Computing*, **18**, 619–631, 2000.

52 R.C. Wilson and E.R. Hancock, "Bias Variance Analysis for Controlling Adaptive Surface Meshes", *Computer Vision and Image Understanding* **77**, pp. 25-47, 2000.

53 R.Myers,E.R.Hancock, "Genetic Algorithms for Ambiguous Labelling Problems", *Pattern Recognition*, **33**, pp. 685–704, 2000.

54 P.L.Worthington and E.R.Hancock, "Object Recognition using Shape from shading", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **33**, pp. 535–562, 2001.

55 R.C.Wilson and E.R.Hancock, "Storage Capacity of the Exponential Correlation Associative Memory", *Neural Processing Letters*, **13**, pp. 71-80, 2001.

56 P.L.Worthington and E.R. Hancock, "Surface Topography using Shape from shading", *Pattern Recognition*, **34**, pp. 823-840, 2001.

57 M. Turner and E.R. Hancock, "A Bayesian Framework for 3D Surface Estimation",*Pattern Recognition*, **34**, pp. 903-922, 2001.

58 R. Myers and E.R. Hancock, "Least Commitment Graph Matching with Genetic Algorithms", *Pattern Recognition*, **34**, pp. 375-394, 2001.

59 B Luo and E.R.Hancock "Structural Matching using the EM algorithm and singular value decomposition", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **23**, pp. 1120—1136, 2001

60 E. Ribeiro and E.R. Hancock "Shape From Periodic Texture using the Eigenvectors of Local Affine Distortion", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **23**,pp. 1459–1465, 2001.

61 R. Myers and E.R.Hancock, "Empirical Modelling of Genetic Algorithms", *Evolutionary Computation*, **9**, pp. 461–493, 2001.

62 E.R.Hancock and R.C.Wilson, contribution to the discussion of the paper by Mardia and Glasbey, *Journal of the Royal Statistical Society*, Series-B, **63**, pp. 492–514, 2001.

63 E.Ribeiro and E.R.Hancock, "Estimating the Perspective Pose of Texture Planes using Spectral Analysis on the Unit Sphere", *Pattern Recognition*, **35**, pp. 2141–2163, 2002.

64 B.Huet and E.R.Hancock, "Relational Object Recognition from Large Structural Libraries", *Pattern Recognition*, **35**, pp. 1895–1915, 2002.

65 K Choi, M. Carcassoni and E.R.Hancock, "Recovering Facial Pose using the EM Algorithm", *Pattern Recognition*, **35**, pp. 2073-2093, 2002.

66 K. Choi, P.L.Worthington and E.R.Hancock, "Estimating facial pose using shape from shading", *Pattern Recognition Letters*, **23**, pp. 533–548, 2002.

68 B. Luo and E.R. Hancock, "Iterative Procrustes Alingnment with the EM Algorithm, *Image and Vision Computing*, **20**, pp. 397-366, 2002.

69 A. Robles-Kelly and E.R.Hancock, "An Expectation-Maximisation Framework for Segmentation and Grouping", *Image and Vision Computing*, **20**, pp. 725–738, 2002.

70 E. Ribiero, A. Robles-Kelly and E.R.Hancock, "Detecting Multiple Texture Planes using Local Spectral Distortion", *Image and Vision Computing*, **20**, pp. 739-750, 2002.

71 B. Luo, R.C.Wilson and E.R. Hancock, "Eigenspaces for Graphs", *International Journal of Image and Graphics*, **2**, pp. 247–268, 2002.

72 M. Carcassoni and E.R. Hancock, "Spectral Correspondence for Point Pattern Matching", *Pattern Recognition*, **36**, pp. 193–203, 2003.

73 H. Ragheb and E.R. Hancock, "A Probabilistic Framework for Specular Shape from Shading", *Pattern Recognition*, **36**, pp. 407–427, 2003.

74 P. L. Worthington and E.R.Hancock, "Coarse View Synthesis using Shape from shading", *Pattern Recognition*, **36**, pp. 439–449, 2003.

75 A.G. Bors, R.C. Wilson and E.R.Hancock, "Terrain Analysis using Radar Imagery", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **26**, pp. 954–992, 2003.

76 A. Torsello and E.R. Hancock, “Computing Approximate Tree Edit Distance using Relaxation Labelling”, *Pattern Recognition Letters*, **24**, pp. 1089–1097, 2003.

77 H. Ragheb and E.R. Hancock, “Darboux Smoothing for Shape from Shading”, *Pattern Recognition Letters*, **24**, pp. 579–595, 2003.

78 B. Luo, R.C. Wilson and E.R. Hancock, “Spectral Embedding of Graphs”, *Pattern Recognition*, **36**, pp. 2212–2223, 2003.

79 R.C. Wilson and E.R. Hancock, “A Study of Pattern Recovery in Recurrent Correlation Associative Memories”, *IEEE Transactions on Neural Networks*, **14**, pp. 506–519, 2003.

80 A Al-Shaher and E.R.Hancock, “Learning Mixtures of Point Distribution Models with the EM Algorithm”, *Pattern Recognition* **36**, pp. 2805–2818, 2003.

81 M. Carcassoni and E.R. Hancock, “Correspondence Matching with Modal Clusters”, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **26**, pp. 1609–1615, 2003.

82 B. Luo and E.R.Hancock, “A Unified Framework for Alignment and Correspondence”, *Computer Vision and Image Understanding*, **92**, pp. 26–55, 2003.

83 A. Robles-Kelly and E.R.Hancock, “A Probabilistic Spectral Framework for Grouping and Segmentation”, *Pattern Recognition*, **37**, pp. 1387–1406, 2004.

84 A. Robles-Kelly and E.R. Hancock, “String Edit Distance, Random Walks and Graph Matching”, *International Journal of Pattern Recognition and Artificial Intelligence*, **18**, pp. 315–327, 2004.

85 A. Robles-Kelly and E.R.Hancock, “A Graph Spectral Approach to Shape from Shading”, *IEEE Transactions on Image Processing*, **13**, pp. 912–926, 2004.

86 A. Torsello and E.R. Hancock, “A Skeletal Measure of Shape Similarity”, *Computer Vision and Image Understanding*, **95**, pp. 1–29, 2004.

87 A. Robles-Kelly and E.R. Hancock, “Graph Edit Distance from Spectral Seriation”, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **27**, pp. 365–378, 2005.

88 A. Robles-Kelly and E.R. Hancock, “A Graph Spectral Method for Surface Height Recovery”, *Pattern Recognition*, **38**, pp. 1167–1186, 2005.

89 R.C. Wilson, B. Luo and E.R. Hancock "Pattern Vectors from Algebraic Graph Theory", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **27**, pp. 1112–1124, 2005.

90 F. Sartori and E.R. Hancock, "Vector Transport for Shape from Shading", *Pattern Recognition*, **38**, pp. 1239–1260, 2005.

91 A. Robles-Kelly and E.R.Hancock, "Estimating the Surface Radiance Function from Single Images", *Graphical Models*, **68**, pp. 518–548, 2005.

92 H. Ragheb and E.R.Hancock "Surface Radiance Correction for Shape from Shading", *Pattern Recognition*, **38**, pp. 1574–1595, 2005.

93 Huaijun Qiu and E.R.Hancock, "Graph Matching and Clustering using Spectral Partitions", *Pattern Recognition*, **39**, pp. 22–34, 2006.

94 A. Torsello and E.R. Hancock "Correcting Curvature-Density Effects in the Hamilton-Jacobi Skeleton", *IEEE Transactions on Image Processing*, **15**, pp. 877-891, 2006.

95 G. Atkinson and E.R. Hancock, "Recovery of surface orientation from diffuse polarisation", *IEEE Transactions on Image Processing*, **15**, pp. 1653–1664, 2006.

96 HongFang Wang and E.R.Hancock, "Correspondence Matching using Kernel Principal Components Analysis and Label Consistency Constraints", *Pattern Recognition*, **39**, pp. 1012–1025, 2006.

97 B. Luo, R.C. Wilson and E.R. Hancock, " A spectral approach to learning structural variations in graphs", *Pattern Recognition*, **39**, pp. 1188–1198, 2006.

98 A. Torsello and E.R. Hancock, "Learning Shape-classes using a mixture of tree-unions", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **28**, pp. 954–967, 2006.

99 H. Ragheb and E.R. Hancock, "Testing New Variants of the Beckmann-Kirchhoff Model against Radiance Data", *Computer Vision and Image Understanding*, **102**, pp. 145–168, 2006.

100 M. Castelan and E.R. Hancock, "Acquiring Height Data from a Single Image of a Face Using Local Shape Indicators", *Computer Vision and Image Understanding*, **103**, pp. 64–79, 2006.

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102 W.A.P. Smith and E.R. Hancock, "Estimating Facial Albedo from a Single Image", *International Journal of Pattern Recognition and Artificial Intelligence*, **20**, pp. 955–970, 2006.

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105 A. Robles-Kelly and E.R. Hancock, "A Riemannian Approach to Graph Embedding", *Pattern Recognition*, **40**, pp. 1042–1056, 2007.

106 A. Torsello, A. Robles-Kelly and E.R. Hancock, "Discovering Shape-classes using Tree Edit Distance and Pairwise Clustering", *International Journal of Computer Vision*, **72**, pp. 259–285, 2007.

107 H. Ragheb and E.R. Hancock, "The Modified Beckmann-Kirchhoff Scattering Theory for Rough Surface Analysis", *Pattern Recognition*, **40**, pp. 2004–2020, 2007.

108 A. Torsello and E.R. Hancock, "Graph Embedding using Tree Edit-Union", *Pattern Recognition*, **40**, pp. 1393–1405, 2007.

109 M. Castelan, W.A.P. Smith and E.R. Hancock, "A Coupled Statistical Model for Face Shape Recovery from Brightness Images", *IEEE Transactions on Image Processing*, **16**, pp. 1139–1151, 2007.

110 I. Ulusoy and E.R. Hancock, "A Statistical Approach to Sparse Multi-scale Phase-Based Stereo", *Pattern Recognition*, **40**, pp. 2504–2520, 2007.

111 HuaiJun Qiu and E.R. Hancock, "Graph Simplification and Matching using Commute Times", *Pattern Recognition*, **40**, pp. 2874–2889, 2007.

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115 M.P. Ewbank, W.A.P. Smith, E.R. Hancock and T.J. Andrews, “The M170 Reflects a Viewpoint-Dependent Representation for both Familiar and Unfamiliar Faces”, *Cerebral Cortex*, **18**, pp. 364–370, 2008.

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117 G.A. Atkinson and E.R. Hancock, “Two-dimensional BRDF Estimation from Polarisation”, *Computer Vision and Image Understanding*, **111**, pp. 126–141, 2008.

118 Bai Xiao, A. Torsello and E.R. Hancock, “Isotree: Tree Clustering using Metric Embedding”, *Neurocomputing*, **71**, pp. 2029–2036, 2008.

119 H. Ragheb and E.R. Hancock, “A Light Scattering Model for Layered Dielectrics with Rough Surface Boundaries”, *International Journal of Computer Vision*, **79**, pp. 179–207, 2008.

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121 Fan Zhang and E.R. Hancock, “Graph Spectral Image Smoothing using the Heat Kernel”, *Pattern Recognition*, **41**, pp. 3328–3342, 2008.

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131 Bai Xiao, R.C. Wilson and E.R. Hancock, "Geometric Characterization and Clustering of Graphs using Heat Kernel Embeddings", to appear *Image and Vision Computing*, 2010.

132 I. Patras and E.R. Hancock, "Coupled prediction-classification for robust visual tracking", to appear *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2010.

133 J. Wu, W.A.P. Smith and E.R. Hancock, "Facial Gender Classification using Shape from Shading", to appear *Image and Vision Computing*, 2010.

134 Bai Xiao, Hang Yu and E.R. Hancock, "Manifold Embedding for Shape Analysis", Neurocomputing, to appear, 2010.

B1ii: Edited works

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2 E.R. Hancock, “Special Edition-BMVC94”, *Image and Vision Computing*, **13**, pp. 317–460, 1996.

3 E. R. Hancock, *Edited Proceedings of the Fifth British Machine Vision Conference*, ISBN 0952 1998 1 X, 1994.

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7 E.R.Hancock, “Graph-based Representations”, Springer Lecture Notes in Computer Science, Volume 2726 2003.

8 M. Figueiredo, E.R. Hancock, M. Pelillo and J Zerubia, “Special Edition on Energy Minimisation Methods in Computer Vision and Pattern Recognition, IEEE Transactions on Pattern Analysis and Machine Intelligence: Part 1, November 2003 (Editorial TPAMI **25**, pp. 1361–1363).

9 M. Figueiredo, E.R. Hancock, M. Pelillo and J Zerubia, “Special Edition on Energy Minimisation Methods in Computer Vision and Pattern Recognition: Part 2, IEEE Transactions on Pattern Analysis and Machine Intelligence: Part 2, February 2004 (Editorial TPAMI **26**, pp. 145-146).

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B1iii: Conference Papers

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3 E. R. Hancock and J. Kittler, "A List-Driven Contextual Decision Rule", *Proceedings of the 5th Scandinavian Conference on Image Analysis*, **Vol 2** , pp.555–562, 1987.

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427 M.P. Ewbank, W.A.P. Smith, E.R. Hancock, and T.J. Andrews, "Testing Viewpoint Invariance in the Neural Representation of Faces: An MEG Study", Brain, Vision and Artificial Intelligence, LNCS **4729**, pp. 52–61, 2007.

428 W.A.P. Smith and E.R. Hancock, "Surface Integration: Two Statistical Approaches", ICIAP, pp. 343–348, 2007.

429 HongFang Wang and E.R. Hancock, "Kernelised Relaxation Labelling using Fokker-Planck Diffusion", ICIAP, pp. 29–34, 2007.

430 Fan Zhang, C.Goodlett, E.R. Hancock and G. Gerig, "Probabilistic Fiber Tracking using Particle Filtering and Von Mises-Fisher Sampling", EMMCVPR, LNCS, **4679**, pp. 303–317, 2007.

431 M. Dickens and E.R. Hancock, " Estimating Reflectance Functions using a Cyberware 3030 Scanner", CAIP, LNCS, **4673**, pp. 342–350, 2007.

432 G. Atkinson and E.R. Hancock, " Surface Reconstruction using Polarization and Photometric Stereo" CAIP, LNCS, **4673**, pp. 466–472, 2007.

433 M. Castelan and E.R. Hancock, " Face Shape Recovery and Recognition Using a Surface Gradient Based Statistical Model", CAIP, LNCS, **4673**, pp. 399–407, 2007.

434 D. Emms, R.C. Wilson and E.R. Hancock, " Graph Similarity using Interfering Quantum Walks", CAIP, LNCS, **4673**, pp. 823,–831, 2007.

435 F. Zhang, C. Goodlet, G. Gerig and E.R. Hancock " Probabilistic Fiber Tracking using Particle Filtering", MICCAI, LNCS **4792**, pp. 144–152, 2007.

436 J. Wu, W.A.P. Smith and E.R. Hancock. "Gender Classification using Shape from Shading", BMVC, Vol 1, pp. 499–508, 2007.

437 I. Patras and E.R. Hancock, "Template Tracking with Observation Relevance Determination", ICIP, Vol 1, pp. 501–504, 2007.

438 Jing Wu, W.A.P. Smith and E.R. Hancock, "A Weighted Principle Geodesic Analysis Method for Gender Classification", CIARP, LNCS **4756**, pp. 331–359, 2007.

439 W.A.P. Smith and E.R. Hancock, "A New Framework for Grayscale and Colour Non-Lambertian Shape-from-shading", ACCV, **LNCS 4844**, pp. 869–880, 2007.

440 S. Ceolin and E.R. Hancock, "Facial Shape Space from Surface Normals and Geodesic Distance", IEEE DICTA, pp. 416–423, 2007.

441 G. Atkinson and E.R. Hancock, "Recovering Material Reflectance Information from Polarization", ICCV Workshop on Photometric Analysis for Computer Vision, 2007.

442 W.A.P. Smith and E.R. Hancock, "Facial Reflectance Measurements from Single Images using Shape-from-shading", ICCV Workshop on Photometric Analysis for Computer Vision, 2007.

442 M.Dickens, H. Ragheb and E.R. Hancock, "Analysis of Skin Reflectance using Beckmann-Kirchhoff Scattering and a Cyberware 3030 Scanner", ICCV Workshop on Photometric Analysis for Computer Vision, 2007.

443 H. ElGhawalby and E.R. Hancock, "Measuring Graph Similarity Using Spectral Geometry", ICIAR 2008, LNCS, **5112**, pp. 517–526, 2008.

444 J. Wu, W.A.P. Smith and E.R. Hancock, "Facial Gender Classification Using Shape from Shading and Weighted Principal Geodesic Analysis", ICIAR 2008, LNCS, **5112**, pp. 925-934, 2008.

445 S. Ceolin, W.A.P. Smith and E.R. Hancock, "Facial Shape Spaces from Surface Normals", ICIAR 2008, LNCS, **5112**, pp. 955–965, 2008.

446 W.A.P. Smith and E.R. Hancock, "Recovering Face Shape and Reflectance Properties from Single Images", Proc. IEEE International Conference on Automatic Face and Gesture Recognition, 2008.

447 J. Wu, W.A.P. Smith and E.R.Hancock, "Gender Classification Based on Facial Surface Normals", DOI 10.1109/ICPR.2008.4761056, ICPR 2008.

448 P. Ren, R.C. Wilson and E.R. Hancock "Pattern Vectors from the Ihara Zeta Function", DOI 10.1109/ICPR.2008.4761902, ICPR 2008.

449 F. Escolano, E.R. Hancock, and M.A. Lozano, "Birkhoff Polytopes, Heat Kernels and Graph Complexity", DOI 10.1109/ICPR.2008.4761921, ICPR 2008.

450 S. Xia, P. Ren and E.R. Hancock, "Ranking the Local Invariant Features for the Robust Visual Saliencies", DOI 10.1109/ICPR.2008.4761170, ICPR 2008.

451 X. Bai, R.C. Wilson and E.R. Hancock, "Object Recognition Using Graph Spectral Invariants", DOI 10.1109/ICPR.2008.4761245, ICPR 2008.

452 M.Dickens, W.A.P. Smith, H. Ragheb and E.R. Hancock, "Measuring Skin Reflectance Parameters", DOI 10.1109/ICPR.2008.4761885, ICPR 2008.

453 D. Emms and E.R. Hancock, "Graph Drawing using Quantum Commute Times", DOI 10.1109/ICPR.2008.4761274, ICPR 2008.

454 J. Sharpe and E.R. Hancock, "Recognising facial expressions using spherical harmonics", SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 157–166, 2008.

455 D.M. Emms and E.R. Hancock, “Graph Edit Distance without Correspondence from Continuous-time Quantum Walks”, SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 5-14, 2008.

456 Xia Shenping and E.R. Hancock, “3D Object Recognition Using Hyper-Graphs and Ranked Local Invariant Features”, SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 117–126, 2008.

457 Peng Ren, R.C. Wilson and E.R. Hancock, “Graph Characteristics from the Ihara Zeta Function”, SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 256–266, 2008.

458 Jing Wu, W.A.P. Smith E.R. Hancock, “Supervised Principal Geodesic Analysis on Facial Surface Normals for Gender Classification”, SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 664–673, 2008.

459 Peng Ren, R.C. Wilson and E.R. Hancock, “Spectral Embedding of Feature Hypergraphss”, SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 308–317, 2008.

460 Xia Shenping and E.R. Hancock, “Clustering Using Class Specific Hyper Graphs”, SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 318–328, 2008.

461 H. ElGhawalby and E.R. Hancock, “Graph characteristic from the Gauss Bonnet Theorem”, SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 207–216, 2008.

462 F. Escolano, M.A. Lozano and E.R. Hancock, “Polytopal Graph Complexity, Matrix Permanents, and Embedding”, SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 237–246, 2008.

463 X. Bai, R.C. Wilson and E.R. Hancock, “Quantitative Evaluation of Heat Kernel Invariants”, SSPR 2008, Lecture Notes in Computer Science, **5342**, pp. 217–226. 2008.

464 H. ElGhawalby and E.R. Hancock, “Characterizing graphs using spherical triangles”, IbPRIA 2009, Lecture Notes in Computer Science, **5524**, pp. 465–472, 2009.

465 Shenping Xia and E.R. Hancock, “Pairwise Similarity Propagation based Graph Clustering for Scalable Object Indexing and Retrieval”, GbR 2009, Lecture Notes in Computer Science, **5534**, pp.184–183, 2009.

466 H. ElGhawalby and E.R. Hancock, “Graph Regularisation using Gaussian Curvature”, GbR 2009, Lecture Notes in Computer Science, **5534**, pp. 233–242, 2009.

467 Peng Ren, R.C. Wilson and E.R. Hancock, "Characteristic Polynomial Analysis on Matrix Representations of Graphs", GbR 2009, Lecture Notes in Computer Science, **5534**, pp. 243–252, 2009.

468 F. Escolano, D. Giorgi, E. R. Hancock, M.A. Lozano, and B. Balcidieno, "Flow Complexity: Fast Polytopal Graph Complexity and 3D Object Clustering", GbR 2009, Lecture Notes in Computer Science, **5534**, pp. 253–262, 2009.

469 W.A.P. Smith and E.R. Hancock, "A Unified Model of Specular and Diffuse Reflectance for Rough, Glossy Surfaces", CVPR, pp. 643–650, 2009.

470 DongJun Yu, W.A.P. Smith and E.R. Hancock, "Learning a Self-Organising Map Model on a Riemannian Manifold", Mathematics of Surface, Lecture Notes in Computer Science, **5654**, pp. 375–390, 2009.

471 H. El Ghawalby and E.R. Hancock, "Geometric Characterizations of Graphs using Heat Kernel Embeddings", Mathematics of Surface, Lecture Notes in Computer Science, **5654**, pp. 124–142, 2009.

472 Shenping Xia and E.R. Hancock, "Learning Class Specific Hypergraphs", ICIAP 2009, Lecture Notes in Computer Science, **5716**, pp. 269–277, 2009.

473 DongJun Yu, W.A.P. Smith and E.R. Hancock, "A Riemammian Self-Organizing Map" ICIAP 2009, Lecture Notes in Computer Science, **5716**, pp. 229–238, 2009.

474 Chengming Zou, Guanghui Zhao, and E.R. Hancock, "Reconstructing 3D Facial Shape using Spherical Harmonics" ICIAP 2009, Lecture Notes in Computer Science, **5716**, pp. 949–957, 2009.

475 Peng Ren, R.C. Wilson and E.R. Hancock, "Hypergraphs, Characteristic Polynomials and the Ihara Zeta Function", CAIP 2009, Lecture Notes in Computer Science, **5702**, pp. 369–376, 2009.

476 Shenping Xia and E.R. Hancock, "Graph based Object Class Discovery", CAIP 2009, Lecture Notes in Computer Science, **5702**, pp. 385–393, 2009.

477 Peng Ren, R.C. Wilson and E.R. Hancock, "Weighted Graph Characteristics from Oriented Line Graph Polynomials", International Conference on Computer Vision, 2009.

478 J. Wu, W.A.P. Smith and E.R. Hancock, “Extracting Gender Discriminating Features from Facial Needle-maps”, ICIP 2009.

479 W.A.P. Smith and E.R. Hancock, “Specular and Diffuse Reflectance in Microfacet Models”, ICIP 2009.

480 J. Wu, W.A.P.Smith and E.R. Hancock, “Semi-Supervised Feature Selection for Gender Classification”, ACCV 2009.

481 S. Xia and E.R. Hancock, “Incrementally Discovering Object Classes using Similarity Propagation and Graph Clustering”, ACCV 2009.

482 Shenping Xia and E.R. Hancock, “Learning Large Scale Class Specific Hyper Graphs for Object Recognition”, ICIG 2009.

B1iv: Theses

1 E.R. Hancock, “The $\pi\pi\Lambda$ Channel from $K^{-}p$ Reactions in the $\Lambda(1690)$ Region, Ph.D. Thesis, University of Durham, 1981.

2 E.R. Hancock, “Contributions to Pattern Recognition and Computer Vision”, D.Sc. Thesis, University of Durham, 2007.

B2: Editorial duties

1991-1994	Editor British Machine Vision Association Newsletter
1991-2006	Associate Editor of Pattern Recognition Journal
1995	Guest Editor of Image and Vision Computing Journal
1997	Guest Editor for Special Edition of Pattern Recognition, April 2000
1999 -2004	Associate Editor of IEEE TPAMI
2001	Guest Editor Special Edition of IEEE TPAMI on Energy Minimisation
2006-present	Editorial Board, Pattern Recognition
2006-present	Editor-in-Chief. IET Computer Vision Journal
2008-present	Area Editor, Computer Vision and Image Understanding
2009	Guest Editor for Special Edition of CVIU on Graph-based Representations
2009-present	Editorial Board Image and Vision Computing
2009	Guest Editor for Special Edition of Pattern Recognition on Semi-supervised Learning

B3: Research Support

1990	£158,000 from DTI-SERC for Vision by Associative Reasoning *principal investigator*
1992	£145,000 from EPSRC for "A Unified Bayesian Framework *principal investigator - final report rated 4*
1992	£136,000 from Defence Research Agency for "Relaxation Algorithms for SAR..." *principal investigator*
1992	£9500 from DRA for CASE Studentship for Richard Wilson *principal investigator*
1993	£5429 from Innovation and Research Priming Fund *joint investigator*
1994	£105,000 from EPSRC for "Automatic Fish Ageing" *joint investigator - final report rated 4*
1994	£9500 from DRA for CASE Studentship for Andrew Cross *principal investigator*
1995	£6500 from Shell BV, Netherlands for CASE studentship for Nigel Sharp *principal investigator*
1995	£51,000 from Defence Research Agency for "Robust Graph Matching" *principal investigator*
1996	£10,000 From DRA for studentship enhancement for Simon Moss *principal investigator*
1996	£5,000 From DRA for studentship enhancement for Richard Myers *principal investigator*
1996	£126,000 extension from Defence Research Agency for "Robust Graph Matching" *principal investigator*
1997	£34,000 from Defence Research Agency for " Contour Extraction from Radar Images" *principal investigator*
1997	£234,000 from EPSRC for "Colour and Texture Selective Indexing" *joint investigator - final report rated outstanding (5)*
1998	£523,687 from HEFCE for "Joint Research Equipment Fund" *joint investigator*
1998	£214,000 from EPSRC for "Terrain Analysis using Radar Imagery" *principal investigator - final report rated outstanding (5)*
1998	£5,000 from DERA for "Terrain analysis software" *principal investigator*
1998	£33,000 from DERA for "Algorithms for radar image registration" *principal investigator*
1998	£155,000 from EPSRC for "Relational Models for Recognition and Learning"

	princpal investigator - final report rated outstanding (5)
1999	£75,000 from DERA for "Graph Clustering"
	principal investigator
2001	£215,000 from EPSRC for "Spectral Methods for Image Retrieval"
	principal investigator - final report rated outstanding (5)
2002	£179,000 from EPSRC for "Surface Reconstruction from Gauss Maps"
	principal investigator- final report rated outstanding (5)
2002	£100,000 from Qinetiq for "Learning Motion Behaviour"
	principal investigator
2003	£185,000 from EPSRC for "Quantum Algorithms for Inexact Graph Matching"
	joint investigator
2004	£1,000,000 from Woolfson Foundation for "York Brain Imaging Centre"
	joint investigator
2005	£15,000 from EU for "Molecular Structure Matching"
	sole investigator
2008	£280,000 from EU (FET) for "SIMBAD - Similarity Based Pattern Recognition"
	joint investigator
2009	£75,000 from Royal Society for "Imaging Studies of Brain Structure and Brain Funct
	sole investigator

B4i: Research Students Supervised

Jose Leite	Multi-scale line detection
1991-1995	*Awarded*
Richard Wilson	Relational graph matching
1992-1995	*Awarded, awarded K.M Stott Prizes for dissertation and thesis*
	awarded EPSRC Advanced Fellowship 1998–2003
Andrew Cross	Genetic search in computer vision
1994-1997	Awarded
Benoit Huet	Statistical indexing for image data-bases
1995-1998	Awarded
Kwang Nam Choi	Face recognition
1995-1998	Awarded
Richard Myers	Ambiguous labelling problems with genetic search
1995-1998	Awarded
Simon Moss	Expectation maximisation in vision
1995-1998	Awarded

Simon Hickinbotham	Texture analysis
1995-1998	Awarded
Philip Worthington	Shape from shading
1996-1999	Awarded
Eraldo Ribeiro	Shape from texture
1996-1999	Awarded
Bin Luo	Factorisation methods for graph-matching
1997-2000	Awarded
Marco Carcassoni	Generative graphical models
1998-2002	Awarded
Niklas Ludtke	Perceptual grouping with elastic graphs
1998-2002	Awarded
Andrea Torsello	Learning relational descriptions
1998-2003	Awarded
Hossein Ragheb	Specular Reflectance
1998-2003	Awarded
Abdullah Al Shaher	Arabic Character Recognition
1999-2004	Awarded
Antonio Robles Kelly	Graph spectral methods in computer vision
1999-2003	Awarded
HuaiJun Qiu	Spectral Simplification of Graphs
2002-2006	Awarded
Mario Castelan	Face reconstruction from single views
2002–2006	Awarded
Xiao Bai	Spectral embedding for visual learning
2002–2006	Awarded
Yang Li	Curvature-based analysis of faces
2002-2007	Awarded
Hongfang Wang	Kernelised correspondence analysis
2002-2007	Awarded
Hang Yu(M.Phil.)	Semidefinite programming form graph seriation
2003-6200	Submitted

Gary Atkinson	Surface reconstruction using Fresnel theory
2003-2007	Awarded
Ming Li(M.Sc.)	Grey-scale skeletonisation
2003-2005	Awarded
Will Smith	Face reconstruction and recognition from single views
2003-2007	Awarded
David Emms	Quantum random walks
2003-2007	Awarded
Fan Zhang	Graph spectral methods for image regularisation
2004-2008	Awarded
Jing Wu	Gender determination using shape-from-shading
2005-2009	Awarded
Howaida El Ghawalby	Structural representation and analysis of shape
2006-present	
Matt Dickens (M.Sc.)	Facial reflectance modelling
2006-2008	Awarded
Simone Ceolin	Shape priors
2006-present	
Normawati Rahman	Graph kernels and image retreival
2007-present	
Peng Ren	Spectra of hypergraphs
2007-present	
Yang Fan	MDL and graph spectra
2007-present	
Gul e Saman	Polarised light scattering from layered surfaces
2008-present	
Weiping Xu	Analysis on non-metric similarity data
2008-present	
Lin Han	Generative models of relational data
2008-present	
Lichi Zhang	Role of shape, texture and reflectance in face recognition
2008-present	
Nitya Subramaniam	Detecting camouflage textures

2009-present	
Mohamad Haseeb	Graph spectral methods for motion analysis
2009-present	
Zhihong Zhang	Gender, age and ethnicity variations in faces
2009-present	

The above list does not include project supervision of taught masters students (which number about 10) or research students assessed (which number about 20).

In addition I have part-supervised the following visiting PhD students whose theses have contained significant amounts of material based on my input:

Esther de Ves	Medical image registration
1996-1999	University of Valencia
Ilkay Ulusoy	Gabor filters and stereo
2001-2003	Middle Eastern Technical University, Ankara
Miguel-Angel Lozano	Heat kernel methods for graphs
2003-2007	University of Alicante
Erdem Akagunduz	Surface reconstruction for surgical planning
2007-present	Middle Eastern Technical University, Ankara

Research Student Achievements: *Awards, prizes etc.:* EPSRC Adavanced Fellow (Wilson), BCS Distinguished Disertation Runner-up (Zhang), best paper prizes (Wilson-Pattern Recognition Journal, Ragheb-CAIP 2001, Luo-ACCV 2002, Zhang-ICPR Piero Zamperoni Prize, Wu-BMVC 2007 Siemens Security Prize), university thesis prizes (Wilson, Luo, Torsello, Smith, Zhang); *Faculty positions:* (Wilson-Reader York, Huet-Associate Professor Eurecom, Luo - Dean Anhui U., Ribeiro- Associate Professor Florida Institute of Technology, Torsello-Assistant Professor Venice U., Robles-Kelly- Senior Research Fellow ANU/NICTA, Xiao- Associate Professor Beihang U., Smith- Lecturer York).

B4ii: External Ph.D. Examining

1992	Department of Physics, Imperial College
1993	Department of Electrical Engineering, Loughborough University
1993	Department of Physics, Kings College London
1994	Department of Computer Science, University of Essex
1996	Department of Electrical Engineering, University of Surrey
1997	Department of Electrical Engineering, University of Surrey
1998	Department of Electrical Engineering, University of Sheffield
1999	Department of Electrical Engineering, University of Southampton

1999	Department of Computer Science, University of Valencia
2001	Department of Electrical Engineering, University of Southampton
2002	Department of Computer Science, University of Bristol
2002	Department of Electrical Engineering, University of Surrey
2003	Department of Engineering, University of Oxford
2003	Department of Computer Engineering, Czech Technical University, Prague
2004	Department of Computer Science, University of Bristol
2004	Department of Computer Science, University of Venice
2004	Department of Computer Science, Tel Aviv University
2005	Department of Computer Science, University of Southampton
2005	Department of Elec. Eng., National University Singapore
2005	External assessor for PhD programmes University of Mysore
2006	Department of Computer Science, University of Sussex
2008	Department of Computer Science, University of Alicante
2009	Department of Computer Science, University of Venice
2009	RSISE, Australian National University
2009	Department of Computer Science, University College London
2009	Department of Computer Science, University of Cape Town
2009	Department of Electrical Engineering, Imperial College

B4iv: Postdocs Trained

Wing Hung Lau, Adrian Evans, Mick Turner, Andrew Finch, Richard Wilson, Andrew Cross, Benoit Huet, Marco Carcassoni, Bin Luo, Simone Severini, Antonio Robles-Kelly, Roberto Fraile.

B4v: Long Term Academic Visitors

Marcello Pelillo (University of Venice), Maolin Hu (Anhui University), Ilkay Ulusoy (Middle East Technical University), Shenping Xia (Chinese National Defence University), DongJun Yu (Nanjing), XianFang Sun (Beihang U.), Yong Tang (Yashan University), Jian Cheng (Chinese Academy of Sciences), Gao Chungxiao (Beihang U.), Chenming Zou (Wuhan University of Technology). En Zhou (Chinese National Defence University), Feng Liu (Huazhong University of Science Technology).

B5: Other research activities and distinctions

B5i: Distinctions and Awards

2000	Fellow of the International Association for Pattern Recognition
	Awarded every 2 years to 20 or so individuals.
2004	Honorary Professor Anhui University, P.R. China
2007	Fellow Institution of Engineering and Technology
2007	Fellow Institute of Physics
2007	Fellow of the British Computer Society
2009	Royal Society Wolfson Research Merit Award

B5ii: Recent Visiting Positions

2005	Visiting professor, CENETAV (University of Havana)
2006-present	Visiting professor NICTA/ANU (4 month-long visits)
2007	Visiting Fellow, Isaac Newton Institute, Cambridge University
2007	Visiting Professor, University of Rome "La Sapienza"
2008	Visiting Fellow, Isaac Newton Institute, Cambridge University

B5iii: Best Paper Awards

1990	Pattern Recognition Society (USA) Medal
	Awarded annually for the best paper in the Pattern Recognition Journal
1998	Pattern Recognition Journal Outstanding Paper Award
	Awarded annually to the best 3-4 papers in the Pattern Recognition
2001	Best paper award CAIP 2001
2002	Best paper award ACCV 2002
2006	Piero Zamperoni Best Paper Award ICPR 2006
2007	BMVC 2007 Siemens Best Security Paper Prize
2009	Best paper prize, ICIAP 2009

B5iv: Conference Committees and Organisation

1990	Organising Committee for EEC ERCIM Workshop on Image Analysis, Amsterdam
1991-present	Programme Committee of British Machine Vision Conference
1991	Review Committee, International Conference on Pattern Recognition
1994	Chairman, British Machine Vision Conference
1996-present	Programme Committee, International Conference on Pattern Recognition
1997	Co-chair IAPR Workshop on Energy Minimisation Methods in Pattern Recognition, Venice.
1997-present	Programme Committee, IEEE International Workshop on Visual Surveillance
1998-present	Programme Committee, IAPR Workshop on Syntactic and Structural Pattern Recognition
1999	Co-chair IAPR Workshop on Energy Minimisation Methods in Pattern Recognition, York.
2001-present	Programme Committee EMMVCPR

2001-present	Programme Committee, IEEE Conference on Computer Vision and Pattern Recognition
2001-present	Programme Committee IAPR GbR Workshop
2002	Co-chair 2nd Int. Workshop on Articulated Motion and Deformable Objects
2002-present	Programme Committee International Texture Workshop
2003	Chair 4th Workshop on Graph-based Representations
2003	Programme Committee Vision, Video and Graphics
2004	Computer Vision Track Chair ICPR 2004
2004-present	Programme Committee ECCV
2004	Programme Committee ICML 2004
2004-present	Programme Committee ICIAR
2005-present	Programme Committee IbPRIA
2004-2007	Programme Committee IEE VIE
2005-present	Programme Committee CIARP
2005-present	Programme Committee IMA Mathematics of Surfaces
2006	Area Chair ECCV Graz 2006
2006-present	Programme Committee Face and Gesture
2007	Track chair ICIAP, Modena
2007-present	Programme Committee, ICCV
2008	Area Chair, CVPR 2008
2009	Programme Co-Chair, ICIG 2009, Xian, China.
2009	Co-Chair IMA Conference on Mathematics of Surfaces
2010	General Chair SPR/SSPR 2010 Cesme Turkey

In addition I have been a programme committee member for numerous national and international workshops.

B5v Major Invited Talks

1995	Keynote speaker SIBGRAPI, Sao Carlos, Brazil
1995	Keynote speaker Brazilian Symposium on Neural Networks
1997	Invited participant Isaac Newton Institute Cambridge
1999	Invited speaker NSF DIMACS Workshop, Rutgers Uni.
2002	Keynote speaker SSPR Windsor, Canada, 2002
2003	Keynote speaker SCIA, Gottenburg, Sweden
2003	Keynote speaker ECML Workshop on Machine Learning in Computer Vision, Berlin
2005	Keynote speaker ICIAP, Cagliari 2005
2005	Invited speaker Bertinoro Workshop on Early Vision
2005	Invited speaker Erice Advanced Study Institute on Pattern Analysis
2005	Lecture series University of Havana

2006	Invited speaker computer vision symposium, Graz, Austria
2006	Keynote speaker ECCV Workshop on Prior Knowledge in Vision
2007	Keynote speaker KI 2007 Workshop on Learning from Non-Vectorial Data
2007	Opening Keynote and tutorial speaker DICTA 2007, Adelaide
2008	Keynote Plenary Speaker, Workshop on Spectral Graph Theory, Rio de Janeiro 2008
2009	Invited keynote, ICIG 2009, Xian
2010	Computer Vision Summer School, Kioloa (ANU)
2010	Keynote ICIAR 2010, Porto, Portugal
2010	Keynote Mexican Congress on Pattern Recognition

Recent seminars: U. Adelaide, Cardiff, Chinese Academy of Sciences, ANU, IC, Southampton, IST Lisbon, Leeds, Monash, Melbourne, Surrey, Tsinghua University, Microsoft Research Asia, Isaac Newton Institute Cambridge, University of Central Florida, UCL, Venice and ETH Zurich.

C: TEACHING

I have developed a total of 8 new courses for the computer science curriculum. These are presented at a variety of levels from first-year undergraduate to DPhil. The courses employ a number of different teaching methods including traditional "chalk-and-board", OHP delivery, student-seminars and literature-based research. In all cases there are printed lecture notes available to the students.

C1i: Undergraduate Courses

1992-1996	Computing with approximate numbers *First-year calculus and numerical analysis*
1991-1996	Topics in Computer Vision *Fourth-year MEng seminar-based course*
1993-1998	Image Analysis *Final year option*
1997-present	Mathematics for Computer Science *First-year matrices, probability and statistics*
2000-present	Computer Vision *Final year option*

My courses are generally well received by students, receiving good assessments for presentation, clarity and challenge. I am reasonably happy with this given their mathematical nature.

C1ii: Postgraduate Courses

1993-1998	Neural Networks *M.Sc. in Biological Computation option*
1996-2003	Research Skills *DPhil research students*

C1iii: Project supervision

I have supervised about 100 successful M.Sc. and undergraduate projects. About one-quarter of these have been at first-class or distinction level. Four students have produced conference publications on the results of their proejects (Oakley, Myers, Smith and Sharpe).

Civ: Open University Work

I was a course tutor for the level 2 module "Matter in the Universe" and the level 3 module "Understanding Space and Time", between 1983 and 1991.

C1v: Recent External Lecturing

2003	Tutorial Scandinavian Conference on Image Analysis, Gottebenborg
2005	Lecturer (4 hours) Erice Advanced Study on Pattern Analysis
2006	One week intensive course on computer vision at CENETAV, University of Havana
2007	Tutorial speaker IEEE DICTA Conference Adelaide

Videos of some recent talks (including the Erice lectures) are available and are linked to my webpage (http://www.cs.york.ac.uk/ erh).

C2: Membership of Professional Bodies

2007	Fellow Institution of Engineering and Technology
2007	Fellow Institute of Physics
2007	Fellow of the British Computer Society and CITP

C4: External Examining of Taught Courses

1999-2003	MRes in Vision and Graphics, University College London
2002-2004	MSc in Artificial Intelligence, University of Edinburgh
2006-2010	undergraduate computer science, University of Warwick

D: ADMINISTRATION AND MANAGEMENT

D1: Departmental Responsibilities

My departmental responsibilities are currently divided between leading the Computer Vision and Pattern Recognition Group (three other academic staff, three RA's and about 15 Ph.D. Students) and until recently duties associated with being Chair of the Departmental Research Committee (DRC).

As Chair of DRC I was responsible for RAE preparation, allocating resources for conference travel, considering requests for study leave and taking a general view of departmental research policy. I had overall responsibility for the Computer Science RAE submission. I was the architect and principal author for our RA5, and provided exemplars and guidelines for the 100 word paper summaries. I was responsible for the checking of the statistical data.

I am a member of the Departmental Strategy Group (the committee of professors and senior teaching officers) which sets the departmental agenda, makes recommendations for promotion and senior appointments, formulates research policy and prepares documentation for submission to the RAE. Previously I was chair of the Departmental Graduate Studies Committee, with responsibility for the recruitment, admission, training, progression and examining of research students. I was also responsible for the departmental DTA and scholarship allocation. During my period as chair of DGSC, research student numbers approximately doubled. I have served on departmental appointments committees for numerous research and academic posts.

1991-1994	Undergraduate and M.Sc. Project Co-ordinator
1992-1993	Secretary to Biological Computation M.Sc. Executive
1995-1997	Member Graduate Schools Committee in Computer Science
1997-2003	Chair Departmental Graduate Studies Committee
1998-	Member Departmental Strategy Group
2003-2008	Chair Departmental Research Committee

D2: University Committees

1993 -1997	Elected member of General Academic Board
1998 - 2001	Member of Professorial Board
2002-2005	Member Board for Graduate School
2007-present	Member University Research Committee

As a member of BfGS, in addition to the usual responsibilities of committee membership, I served on academic misconduct appeals panels and ORS selection panels.

As a member of URC I have participated in formulating the university's 10 year forward research strategy, and have been involved in department and research centre reviews.

D3: External Administration

D3i: External Committees

1991-1995	Member British Machine Vision Association Executive Committee
1998-2002	Chair IAPR Technical Committee on Computer Vision
2000-present	Member EPSRC Peer Review College (7 panel meetings, including ARF interview pa
2005-present	UK Representative on IAPR Governing Board
2005-present	Member UK Computing Research Committee
2006-2008	Member IAPR Constitution and Byelaws Committee
2008-present	Chair IAPR Constitution and Byelaws Committee
2008-present	Chair IAPR TC2 (Structural Pattern Recognition)

D3ii: Work as External Assessor

I have acted as an external assessor for promotion applications for readerships and chairs in the UK (Manchester, Glasgow, Southampton, Leeds, UWE, Bournemouth, IIIT Hydrabad) and for tenure-track reviews in the USA, Israel, Singapore and Canada.

As IAPR GB member I have been responsible for nominating senior members of the UK computer vision and pattern recognition community for IAPR prizes (e.g. Kittler for the KS Fu prize) and IAPR Fellowships (Davies, Fisher, Nixon).