SIMON LUCEY (simon.lucey@csiro.au)
ICT Centre, Australian Commonwealth Scientific and Industrial
Research Organisation (CSIRO), Brisbane, QLD, Australia

RESEARCH INTERESTS

Computer Vision, Machine Learning, Face Analysis, Body Analysis, Multi-modal Biometrics, Audio-Visual Speech Recognition, Artificial Intelligence.

PROFESSIONAL PREPARATION

- Ph.D., Electrical Engineering, Queensland University of Technology, Brisbane, Australia, 2003.
  (Dissertation Title: Audio-Visual Speech Processing)
- B.E., Electrical and Electronic Engineering (1st class honors), University of Southern Queensland, Toowoomba, Australia, 1999.
  (Undergraduate Thesis Title: Low-Rate Image Compression Using Vector Quantization)

RESEARCH EXPERIENCE

- ARC Future Fellow, Senior Research Scientist & Research Project Leader, ICT Centre, Commonwealth Scientific and Industrial Research Organization (CSIRO) Australia, October 2009 - present
- Professor (Adjunct), School of ITEE at the University of Queensland, September 2010 - present.
- Associate Professor (Adjunct), School of Engineering Systems at the Queensland University of Technology, September 2010 - present.
- Associate Professor (Adjunct), School of Electrical and Information Engineering at The University of Sydney, March 2010 - present.
- Adjunct Faculty, Robotics Institute, Carnegie Mellon University, October 2009 - present.
- Assistant Research Professor (Faculty), Robotics Institute, Carnegie Mellon University, October 2008 - October 2009.
- Systems Scientist (Faculty), Robotics Institute, Carnegie Mellon University, 2005-2008
- Post Doctoral Fellow, ECE Department, Carnegie Mellon University, 2002-2005
  (Working on multimodal biometrics, speaker and face verification, computer vision and learning)
- Graduate Researcher, EESE Department, Queensland University of Technology, 1999-2002
  (Working on audio-visual speech processing, computer vision and learning)
- Undergraduate Researcher, EE Department, University of Southern Queensland, 1998-1999
  (Working on image compression)

FUNDING

- Partner Investigator in ARC Discovery Grant, "Omniscient Face Recognition for Uncooperative Subjects", Chief Investigator Prof. Sridha Sridharan, Queensland University of Technology, ($350,000 AUD) January 2011 - December 2013.
- Partner Investigator in ARC Discovery Grant, "Added depth: automated high level image interpretation", Chief Investigator Prof Anton van den Hengle, University of Adelaide, ($325,000) January 2011 - December 2013.
- Awarded Australian Research Council (ARC) "Future Fellowship" for "Advance Interface Technologies for Computational Science & Simulation" ($886,400 AUD October 2009 - October 2013).
- Principal Investigator on project "Avatar for Gaming", Cywee Ltd, ($800,000 (AUD) 04/01/2010 - 04/01/2012).
- Principal Investigator on project "Video Image and Retrieval Tool (VIRAT)", Lockheed Martin Corp, (subcontract DARPA), ($200,000 (USD) 09/01/08 – 11/30/09).
- Co-Principal Investigator on project "Properties of Pain Expression." Canadian Institutes of Health Research. ($300,000 (USD) October 2005 - October 2008).
- Co-Principal Investigator on project "Collaborative Research DHB: Coordinated Motion and Facial Expression in Dyadic Conversation." The National Science Foundation, ($611,725 September 2005 - September 2008).
- Awarded project "Patch-Based Video Analysis and Content Extraction" as Principal Investigator in the VACE III proogramme being run by the DTO. ($308,911, October 2006 - January 2008).

PROFESSIONAL ACTIVITIES

- Local Arrangements Chair of the IEEE International Conference on Computer Vision (ICCV) in Sydney, Australia, 2013. ICCV is regarded as the premier conference in computer vision and is a CORE A+ conference. ICCV is also considered one of the top 5 conferences in the broader topic of AI.
- Served on NSF review panel for Robust Intelligence - Small (March 2009)
- Co-Organized and Co-Chair of the International Conference on Auditory and Visual Speech Processing (AVSP) on Moreton Island, Australia in September 2008.
- Initiated and ran the inaugural "Beyond Patches" workshop at CVPR 2006 (and the subsequent follow workshop at CVPR 2007) which was first workshop of its kind to advocate using patch-based representation for solving difficult computer vision and pattern recognition problems.
- Based on success of "Beyond Patches" workshops invited to be a guest editor of a special issue of "Patches in Vision" in EURASIP's Journal of Image and Video Processing in 2009.
- Initiated and ran the inaugural "Non-Rigid Registration and Tracking" (NRTL) workshop at ICCV 2007.
- Served and continue to serve on various programme committees in field. It should be noted that conferences like ICCV, CVPR and ECCV are considered to be the 3 top computer vision conferences (in that order) in the world (according to Computer Science Conference Ranking website http://www.cs-conference-ranking.org/home.html in June 2009) with CVPR and ICCV being categorised as being in the top 5 of all international conferences in Artificial Intelligence and Machine Learning. Programme committees the candidate has served on:-
- IEEE International Conference in Computer Vision (ICCV) {2007,2009}
- IEEE International Conference in Computer Vision and Pattern Recognition (CVPR) {2006,2007,2009}
- European Conference in Computer Vision (ECCV) {2008}
- IEEE International Conference in Automatic Face and Gesture Recognition (AFGR) {2008}
- Digital Image Computing: Techniques and Applications (DICTA) {2008,2009}
- HCSNet Workshop on the Use of Vision in HCI (VisHCI) satellite to DICTA. {2007}
- International Workshop on "Beyond Patches" (BP) satellite to CVPR'06 and CVPR'07. {2006, 2007}
- International Workshop on "Non-rigid Registration and Tracking through Learning" (NRTL) satellite to ICCV'07 {2007}
- Served as an associated editor to IEEE Transactions of Multimedia 2005 - 2008.

AWARDS

- Australian Research Council (ARC), Future Fellow, for 2009 - 2013 (funding associated with award is $886,400 (AUD)). Only 200 fellowships were offered across all disciplines of science in Australia, with the fellowships open to a highly competitive number of international applicants.
- Finished 3rd with a face recognition system designed for the BANCA face recognition challenge held at the International Conference of Pattern Recognition (ICPR) in Cambridge, U.K., 2004. Details of this result can be found in our ICPR'2004 publication.
- Paper authored by candidate entitled "Learning patch dependencies for improved pose mismatched face verification" selected in the best papers of CVPR'06 special issue in the prestigious International Journal of Computer Vision. IJCV was considered to have the #1 impact factor of 365 Computer Science journals and #1 of 85 Artificial Intelligence journals (as judged by ISI - 2006).
- Paper authored by candidate entitled " AAM derived face representations for robust facial action recognition" selected as one of the best papers of AFGR'06 and was invited as a full book chapter in the book "Face Recognition".
- Australian Post Graduate Award (APA) with stipend (1999-2001)
- Geoff Wilmoth medal (1998) (awarded to student with highest final year grades, outstanding final year project and for service to the community).
- Runner up in IEAust Electrical Engineering Queensland, best project competition. (1998)

INVITED TALKS

- "Leveraging convex quadratics for alignment and classification in vision", at the University of California San Diego (UCSD), August 2009 (invited by Prof. Javier Movellan)
- "Relaxations in vision: Convex or just vexing?", at the University of Southern California (USC), August 2009 (invited by Prof. Louis P. Morency)
- "Generative vs. Discriminative Non-Rigid Object Alignment", at the University of British Columbia, Vancouver, Canada, June 2008. (invited by Prof. Jim Little and Prof. Eric Bateson, talk was supported by University)
- "Generative vs. Discriminative Non-Rigid Object Alignment", at Simon Fraser University, Vancouver, Canada, June 2008. (invited by Assistant Prof. Greg Mori)
- "Bounds on Gradient-Descent Discriminative Alignment", at the Australian National University (ANU), Canberra, Australia, March 2008. (invited by Prof. Richard Hartley)
- "Constrained Local Models for Face Fitting", at Dalle Molle Institute for Perceptual Artificial Intelligence (IDIAP), Martigny, Switzerland, June 2007 (invited Dr. John Dines)
- "Viewpoint Invariant Face Recognition Using Patches", at University of Illinois, Champaign-Urbana, USA, April 2007. (invited by Prof. Thomas Huang, talk was supported by University)
- "Generalizing without Examples: Improved Face Recognition with a Free-Parts Representation" at the University College of London (UCL), Marstlem Heath, U.K., May 2005.
- "Habile Face and Pattern Recognition" at the Australian National University (ANU), Canberra, Australia, January 2005.
- "Habile Face and Pattern Recognition"; at the Queensland University of Technology (QUT), Brisbane, Australia, January 2005.

ADDITIONAL INFORMATION

- Accomplished C, C++ and MATLAB programmer.
- Unix administrator for AMP Lab's Unix cluster (2002-2004).
- Designed and constructed a real-time text-independent speaker verification demo for the Sony Project (2002).
- Designed and constructed a real-time audio-visual speech recognition systems, along with illumination and camera booth (2000).

TEACHING EXPERIENCE

2010-2011, "Computer Vision Summer School" at Kioloa ANU Campus, Australia March 2010, 2011.
2008, "Computer Vision from a Learning Perspective",
short-course at the Machine Learning Summer School (MLSS'08) at Kioloa ANU Campus, Australia, March 2008.

2002-2005, ECE Department, Carnegie Mellon University
Guest lecturer for subjects:
- 18-794, Pattern Recognition Theory
- 18-396, Signal Systems

September 2002, San Jose, CA.
Ran a tutorial, over two "full" days on "Speaker Recognition" for the Sony Corporation in San Jose, CA.

STUDENTS & STAFF

- Supervising Hilton Bristow, Ph.D. Student, QUT [2011 - present].
- Supervising Jack Valmadre, Ph.D. Student, QUT [2011 - present].
- Supervising Yingying Zhu, Ph.D. Student, UQ [2011 - present].
- Hiring Jason Saragih as a post-doc to conduct research in expression recognition and human computer interaction (HCI) [2008 - 2009].
- Supervised - Yang Wang (post-doc) in facial feature detection [2006 – 2008].
- Co-supervising Ahmed Bilal Ashraf – Ph.D. Student in ECE department, CMU [2006 – present].
- Co-supervising Mark Cox - Ph.D. Student at the Queensland University of Technology (QUT) in Australia [2007 - 2009]

- Co-supervised Nisarg Vyas - Master's Student (Face Recognition/Detection in Compression for VACE project) [2004-2005]
- Co-supervised Mike Beattie – Master's Student (Mult-modal Biometrics for DIBAS project) [2004-2005]

SELECTED PROJECTS

Advanced Interface Technologies using Computer Vision, funded by ARC (2009-2013)
- PI on project (funding associated with award is $886,400 (AUD)
- Developing technologies to interact using faces and body using vision.

Avatar Project, funded by Cywee gaming company in Taiwan (20010-2012)
- PI on project (funding associated with contract is $800,000 (AUD)
- Developing technologies to animate avatar for gaming and simulation.

Human Dynamics Project, funded by NSF (2005 – 2008)
- Co-PI on project
- Conducting research into synthesizing facial avatars through the AAM framework.
- Developing algorithms for multi-view generic AAM fitting.

Pain Project, funded by CIHR (2005 – 2008)
- Co-PI on project
- Conducting research into recognizing facial action for analyzing pain in medical patients. Supervising students and post-docs coordinating research agenda for project.

DENSO Project, funded by DENSO Corporation (2006 – present)
- Conducting cutting edge research in the development of a "Generic AAM" facial feature detector.
- Giving seminars and feedback on transferring current AAM technology into a practical product.

VACE III Project, funded by DTO (October 2006 – January 2008)
- Primary PI and leader on project.
- Formulating cutting edge algorithms for patch-based face analysis in order to gain improved face recognition and facial expression recognition.
- Plan on participating in upcoming CLEAR evaluation in April 2007.
- Supervising Ahmed Bilal Ashraf in this area.
- Hired Yang Wang (post-doc) to conduct research in this area.

Deception Project, funded by NRL (2005-2006)
- Conducted research into the development of algorithms that are able to recognize facial actions associated with deception.

VACE II Project, funded by ARDA (2003-2005)
- Conducted research into developing robust and high performing face recognition algorithms.
- Participated in BANCA face recognition competition (finished 3rd)
- Participated in round 1 of the Face Recognition Grand Challenge
- Supervised a Master's student Nisarg Vyas in that area
- Delivered to MITRE, face detection and recognition software (FHI algorithm).

DIBAS Project, funded by NIST (2003 – 2005)
- Conducted research into improving the performance of distributed biometrics within a building.
- Supervised a Master's student Mike Beattie in that area.

Sony Project, funded by Sony Corporation (2002 – 2003)
- Conducted research in developing speaker verification algorithms for hand held devices.
- Delivered speaker verification demo and software.

PUBLICATIONS

Journals

- A. Asthana, **S. Lucey** and R. Goecke, "Regression based automatic face annotation for deformable model building", Pattern Recognition, 2011. (accepted for publication)

- P. Lucey, J. F. Cohn, I. Matthews, **S. Lucey**, J. Howlett, K. M. Prkachin, “Automatically detecting pain in video through facial action units”, IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics, vol 99, pp 1-11, 2011.
- J. Saragih, and **S. Lucey** and J. F. Cohn, “Deformable Model Fitting by Regularized Landmark Mean-Shift”, International Journal of Computer Vision (IJCV), vol 91, no. 2, 200-215, 2011.
- A. B. Ashraf, **S. Lucey**, and T. Chen, “Re-interpreting the application of Gabor filters as a manipulation of the margin in linear support vector machines”, IEEE Trans. PAMI July 2010, (vol. 32 no. 7) pp. 1335-1341.
- **S. Lucey**, Y. Wang, J. F. Cohn, “Non-rigid face tracking with enforced convexity and local appearance consistency constraint”, International Journal of Image and Vision Computing 27(12): 1788-1796, November 2009.
- A. B. Ashraf, **S. Lucey**, J. F. Cohn, and T. Chen, “The painful face – pain expression recognition”, International Journal of Image and Vision Computing, 27(12):1788-1796, November 2009.
- **S. Lucey**, Y. Wang, M. Cox, S. Sridharan, and J. F. Cohn. Efficient constrained local model fitting for non-rigid face alignment. International Journal of Image and Vision Computing, 27(12): 1804-1813, November 2009.
- **S. Lucey**, and T. Chen, “Patches in Vision”, EURASIP Journal of Image and Video Processing, vol. 2009, Article ID 689150
- **S. Lucey** and T. Chen, “A viewpoint invariant, sparsely registered, patch based, face verifier”, International Journal of Computer Vision (IJCV) , October 2008, vol. 80 no. 1, pp. 58-71.
- **S. Lucey** and T. Chen , “Integrating monolithic and free-parts representations for improved face verification in the presence of pose mismatch”, Pattern Recognition Letters, June 2007 vol. 28 no. 8, pp. 895 - 903.
- **S. Lucey** and T. Chen, S. Sridharan and V. Chandran, “Integration strategies for audio-visual speech processing: Applied to text dependent speaker recognition”, IEEE Transactions on Multimedia, June 2005 vol. 7 no. 3, 2005.
- **S. Lucey**, S. Sridharan and V. Chandran , “Improved facial feature detection for AVSP via unsupervised clustering and discriminant analysis”, EURASIP Journal on Applied Signal Processing (2003).
- **S. Lucey**, S. Sridharan, and V. Chandran, "Adaptive mouth segmentation using chromatic features," Pattern Recognition Letters, vol. 23, pp. 1293-1302, 2002.
- **S. Lucey**, S. Sridharan, and V. Chandran, “Robust lip tracking using active shape models and gradient vector flow”, Australian Journal of Intelligent Information Processing Systems (AJIIPS), vol. 6, no. 3, pp. 175-179, 2000.

Book Chapters

- **S. Lucey**, A. B. Ashraf, J. Cohn, " Investigating spontaneous facial action recognition through AAM representations of the face.” Face Recognition, Pro Literatur Verlag, Mammendorf, Germany, April, 2007.

Book Articles

- M. Beattie, B.V.K. Vijaya Kumar, **S. Lucey**, and O. Tonguz. “Automatic Configuration for a Biometrics-Based Physical Access Control System”. Lecture Notes in Computer Science, Springer-Verlag Heidelberg, volume 3781 / 2005, October 2005.
- M. Beattie, B.V.K. Vijaya Kumar, **S. Lucey**, and O. Tonguz. “Combining Verification Decisions in a Multi-Vendor Environment”. Lecture Notes in Computer Science, Springer-Verlag Heidelberg, volume 3546 / 2005, July 2005.
- **S. Lucey**, "An evaluation of visual speech features for the tasks of speech and speaker recognition," Lecture Notes in Computer Science, Springer-Verlag Heidelberg, volume 2688 / 2003, pp. 260-267, June 2003.
- **S. Lucey** and T. Chen, "Improved audio-visual speaker recognition via the use of a hybrid combination strategy," Lecture Notes in Computer Science, Springer-Verlag Heidelberg, volume 2688 / 2003, pp. 929-936, June 2003.

Conference Papers

- Y. Zhu, M. Cox and **S. Lucey**, “3D Motion Reconstruction for Real-World Camera Motion”, IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2011.
- J. Saragih, **S. Lucey** and J. F. Cohn, “Real-time Avatar Animation from a Single Image”, IEEE International Conference on Automatic Face and Gesture Recognition (AFGR) 2011.

- R. J. Bennets, D. Burke, K. Brooks, J. Kim, **S. Lucey**, J. Saragih and R. A. Robbins, "Avatars vs Point-light Faces: Movement Matching is Better Without a Face", Proceedings of the 38th Australasian Experimental Psychology Conference, 2011.
- S. W. Chew, P. Lucey, **S. Lucey**, J. Saragih, J. F. Cohn, S. Sridharan, "Person-Independent Facial Expression Detection using Constrained Local Models", IEEE Workshop on Facial Expression Recognition and Analysis Challenge, at AFGR 2011.
- P. Lucey, **S. Lucey** and J. F. Cohn, "Registration Invariant Representations for Expression Detection", International Conference on Digital Image Computing: Techniques and Applications (DICTA) 2010.
- **S. Lucey** and J. Jang, "Non-Rigid Face Tracking Using Short Track-Life Features", International Conference on Digital Image Computing: Techniques and Applications (DICTA) 2010.
- J. Valmadre and **S. Lucey** "Deterministic 3D Human Pose Estimation using Rigid Structure", European Conference on Computer Vision (ECCV) 2010.
- S. Ali, and **S. Lucey**, "Are Correlation Filters useful for Human Action", International Conference on Pattern Recognition (ICPR) 2010.
- A. B. Ashraf, **S. Lucey**, T. Chen, "Fourier Image Alignment", IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2010.
- A. Ryan, J. F. Cohn, **S. Lucey**, J. Saragih, P. Lucey, F. De la Torre, and A. Rossi, "Automated Facial Expression Recognition System" IEEE International Carnahan Conference on Security Technology, October 2009.
- J. Saragih, **S. Lucey**, and J. F. Cohn, "Deformable Model Fitting with a Mixture of Local Experts", IEEE International Conference on Computer Vision (ICCV) 2009
- J. Saragih, **S. Lucey**, and J. F. Cohn, "Subspace constrained mean shifts", IEEE International Conference on Computer Vision (ICCV) 2009
- M. Cox, **S. Lucey**, and S. Sridharan, and J. F. Cohn, "Least squares congealing for large numbers of images", IEEE International Conference on Computer Vision (ICCV) 2009.
- P. Lucey, J. Cohn, **S. Lucey**, K. Prkachin and S. Sridharan, "Automatically detecting pain using facial actions" in proceedings of the International Conference on Affective Computing and Intelligent Interaction (ACII), September 2009.
- P. Lucey, J. Cohn, **S. Lucey**, K. Prkachin and S. Sridharan, "Automatically detecting action units from faces of pain: Comparing shape and appearance features" in proceedings of the International Conference on Computer Vision and Pattern Recognition (CVPR) Workshop, Human Communicative Behavior Analysis, 2009.
- **S. Lucey**, "Enforcing non-positive support weights for stable support vector tracking", IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2008.
- P. Lucey, **S. Lucey**, M. Cox, S. Sridharan, and J. F. Cohn, "Comparing object alignment algorithms with appearance variation: Forward-additive vs Inverse-composition" IEEE International Workshop on Multimedia Signal Processing (MMSP) 2008.
- A. B. Ashraf, **S. Lucey**, T. Chen, "Learning patch correspondences for improved viewpoint invariant face recognition", IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2008.
- M. Cox, **S. Lucey**, and S. Sridharan, "Least squares congealing for unsupervised alignment of images", IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2008.
- Y. Wang, **S. Lucey**, and J. F. Cohn, "Enforcing convexity for improved alignment with constrained local models", IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2008.
- Y. Wang, **S. Lucey**, and J. F. Cohn, "Non-rigid face tracking with local appearance consistency constraint", IEEE Conference on Automatic Face and Gesture Recognition (AFGR) 2008.
- J. Saragih, **S. Lucey**, and J. F. Cohn, "Linear deformable model fitting with soft correspondence constraints", IEEE Conference on Automatic Face and Gesture Recognition (AFGR) 2008.
- Y. Wang and **S. Lucey**, "Non-Rigid Object Alignment with a Mismatch Template Based on Exhaustive Local Search" in proceedings of the International Conference on Computer Vision (ICCV) Workshop, NRTL, October 2007.
- A. B. Ashraf, **S. Lucey**, T. Chen, K. Prkachin, P. Solomon, Z. Ambadar and J. F. Cohn, "The painful face: Pain expression recognition using active appearance models." Proceedings of the ACM International Conference on Multimodal Interfaces (ICMI'07), Nagoya, Japan, 9-14.
- **S. Lucey** and I. Matthews, "Face refinement through a gradient descent alignment approach," in HCSNet Workshop on the Use of Vision in HCI (VisHCI), Canberra, Australia, November 2006.

- **S. Lucey** and T. Chen, “Learning patch dependencies for improved pose mismatched face verification,” in IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), vol. 1, pp. 909–915, 2006
- **S. Lucey**, F. De la Torre, I. Matthews, C. Hu, Z. Ambadar, J. Cohn “AAM derived face representations for robust facial action recognition” , in the proceedings of the IEEE Conference on Face and Gesture (F&G), pp. 155 – 160, April 2006.
- P. Lucey, **S. Lucey** and S. Sridharan “Using a Free-Parts Representation for Visual Speech Recognition”, in proceedings of Digital Image Computing: Techniques and Applications (DICTA), Cairns, Australia, December 2005.
- **S. Lucey** and T.Chen “Improved face recognition through mismatch driven representations of the face,” in proceedings of the International Conference on Computer Vision (ICCV) Workshop, PETS, Beijing, October 2005.
- **S. Lucey**, "Using overlapping distributions to deal with face pose mismatch," in proceedings of the British Machine Vision Conference, September 2005.
- **S. Lucey** and P. Lucey “Improved Speech Reading through a Free-Parts Representation”,in proceedings of the International Conference on Audio-Visual Speech Processing (AVSP), Vancouver, June 2005.
- **S. Lucey**, "The symbiotic relationship of parts and monolithic face representations in verification," in proceedings of the International Conference on Computer Vision and Pattern Recognition (CVPR) Workshop, Face Processing in Video (FPIV), Washington D.C., 2004.
- **S. Lucey** and T. Chen, "A GMM parts based face representation for improved verification through relevance adaptation," presented at International Conference on Computer Vision and Pattern Recognition (CVPR), Washington D.C., 2004.
- M. Beattie, B.V.K. Vijaya Kumar, **S. Lucey**, and O. Tonguz. “Building access control using coordinated biometric verification,” Biometrics: International Conference on Pattern Recognition (ICPR) Workshop, Biometric Challenges arising from Theory to Practice (BCTP), Cambridge, U.K. 2004.
- K. Messer, J. Kittler, M. Sadeghi, M. Hamouz, A. Kostin, F. Cardinaux, S. Marcel, S. Bengio, C. Sanderson, N. Poh, Y. Rodriguez, J. Czyz, L. Vandendorpe, C. McCool, S. Lowther, S. Sridharan, V. Chandran, R. P. Palacios, E. Vidal, B. Li, S. LinLin, W. Yan , Y. Chiang, ; Liu Hsien-Chang; Hung Yi-Ping; Heinrichs, A.; Muller, M.; Tewes, A.; von der Malsburg, C.; Wurtz, R.; Zhenger Wang; Feng Xue; Yong Ma; Qiong Yang; Chi Fang; Xiaoqing Ding; Lucey, S.; Goss, R.; Schneiderman, H.;Face authentication test on the BANCA database
- **S. Lucey** and T. Chen, "An investigation into subspace rapid speaker adaptation for verification," in proceedings of the IEEE Conference on Multimedia and Expo (ICME), pp. 69-72, Baltimore MD, U.S.A., 2003.
- **S. Lucey** and T. Chen, "Improved speaker verification through probabilistic subspace adaptation," in proceedings of Eurospeech, pp. 2021-2024, Geneva, Switzerland, 2003.
- **S. Lucey** and S. Sridharan, "A theoretical framework for independent classier combination," in proceedings of the International Conference on Pattern Recognition (ICPR), Quebec City, Canada, 2002.
- **S. Lucey**, S. Sridharan, and V. Chandran, "A link between cepstral shrinking and the weighted product rule in audio-visual speech recognition," in proceedings of the International Conference on Spoken Language Processing (ICSLP), pp. 1961-1964, Denver, Colorado, 2002.
- B. Baker, M. McGreevy, **S. Lucey** and S.Sridharan. "Audio-Visual Speech Recognition - A practical implementation", in proceedings of the Workshop on Signal Processing and its Applications (WoSPA), 2002.
- **S. Lucey**, S. Sridharan, and V. Chandran, "An investigation of HMM classifier combination strategies for improved audio-visual speech recognition," in proceedings of Eurospeech, pp. 1185-1188, Aalborg, Denmark, 2001.
- **S. Lucey**, S. Sridharan, and V. Chandran, "A suitability metric for mouth tracking through chromatic segmentation," in proceedings of the International Conference on Image Processing (ICIP), pp. 258-261, Thessaloniki, Greece, 2001.
- **S. Lucey**, S. Sridharan, and V. Chandran, "Improving visual noise insensitivity in small vocabulary audio-visual speech recognition applications." in proceedings of the International Symposium on Signal Processing and its Applications (ISSPA), vol. 2, pp. 434-437, Kuala-Lumpur Malaysia, August 2001.

- **S. Lucey**, S. Sridharan, and V. Chandran, "Improved speech recognition using adaptive audio-visual fusion via a stochastic secondary classifier." in proceedings of the International Symposium on Intelligent Multimedia, Video and Speech Processing, pp. 551-554, Hong Kong, May 2001.
- **S. Lucey**, S. Sridharan, and V. Chandran, "An improvement of automatic speech reading using an intensity to contour stochastic transformation." in proceedings of the Australian Speech Science Technology Conference (SST), pp. 98-103, Canberra Australia, December 2000.
- **S. Lucey**, S. Sridharan, and V. Chandran. "Initialised eigenlip estimator for fast lip tracking using linear regression", in proceedings of the International Conference on Pattern Recognition (ICPR), Barcelona, pp. 182-185, September 2000.
- **S.Lucey**, S.Sridharan and V.Chandran, "Chromatic lip tracking using a connectivity based fuzzy threshold technique", in proceedings of the International Symposium on Signal Processing and its Applications (ISSPA), 1999.

REFEREES

- Prof. Takeo Kanade (tk@cs.cmu.edu), U.A. and Helen Whitaker University Professor, Robotics Institute, Carnegie Mellon University, Pittsburgh, PA., USA.
- Prof. Tsuhan Chen (tsuhan@cmu.edu), Associate Department Head of the Electrical and Computer Engineering Department, Carnegie Mellon University, Pittsburgh PA., USA.
- Prof. Jeffery F. Cohn (jeffcohn@pitt.edu), Professor of Psychology and Associate Professor of Psychiatry at the University of Pittsburgh and Adjunct Faculty at the Robotics Institute, Carnegie Mellon University, Pittsburgh, PA., USA.
- Prof. Vijaya-kumar Bhagavatula (kumar@ece.cmu.edu), Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh PA., USA.
- Prof. Sridha Sridharan (s.sridharan@qut.edu.au), Head of the Speech, Audio, Image & Video Technology (SAIVT) Research Project, within the Centre for Built Environment and Engineering Research (C-BEER) of the Queensland University of Technology, Brisbane Qld., Australia.