

Patents and Publications

Patent Summary

1. T. Mohan, G. Gordon. Distributed Light Fixture Beacon Management. U.S. Patent 9,585,227. Filed April 2016. Issued Feb 2017.
2. S. Patel, G. Gordon, T. Mohan. Associating Information with an Asset or a Physical Space. U.S. Patent 9,585,228. Filed June 2016. Issued Feb 2017.
3. T. Mohan, M. Gershowitz, G. Gordon. Self-determining a Configuration of a Light Fixture. U.S. Patent Application 15/334,470. Filed Oct 2016. Pending.
4. S. Patel, G. Gordon, T. Mohan. Associating Information with an Asset or a Physical Space. U.S. Patent Application 15/405,179. Filed Jan 2017. Pending.
5. T. Mohan, G. Gordon. Distributed Light Fixture Beacon Management. U.S. Patent Application 15/405,198. Filed Jan 2017. Pending.
6. E. Grossmann, G. Gordon, J. Woodfill. Systems, Methods, and Computer Program Products for Runtime Adjustment of Image Warping Parameters in a Multi-Camera System. U.S. Patent 9338439. Filed March 2013 (priority April 2012). Issued May 2016.
7. Grossmann, Gordon, Woodfill. Systems, Methods, and Computer Program Products for Low-Latency Warping of a depth map. U.S. Patent 9159135. Filed March 2013. Issued Oct 2015.
8. Grossmann, Gordon, Woodfill. Systems, Methods, and Computer Program Products for Compound Image Demosaicing and Warping. U.S. Patent 9230297. Filed March 2013 (Priority May 2012). Issued Jan 2016.
9. J. Woodfill, E. Grossmann, G. Gordon. Systems and methods for row causal scan-order optimization stereo matching. U.S. Patent 9183461. Filed May 2013. Issued Nov 2015.
10. Grossmann, Gordon, Woodfill. Display Screen For Camera Calibration. U.S. Patent 8743214. Filed May 2011. Issued June 2014.
11. Grossman, Gordon, Woodfill. Camera Calibration Using an Easily Produced 3D Calibration Pattern. U.S. Patent 8872897. Filed May 2011. Issued Oct 2014.
12. St. Hilaire, Gordon, Woodfill, Buck, Clochset. 2012. Enhancing Stereo Depth Measurements with Projected Texture. U.S. Patent 8,238,611. Filed May 2011, Issued August 2012.
13. St. Hilaire, Gordon, Woodfill, Buck, Clochset. 2011. Enhancing Stereo Depth Measurements with Projected Texture. U.S. Patent 7,970,177. Filed March 2006, Issued June 2011.
14. Woodfill, Buck, Gordon, Jurasek, Brown. 2010. Integrated Image processor. U.S. Patent 7,664,315. Filed Nov. 2004, Issued Feb. 2010.

15. Gordon, Darrell, Harville, Woodfill. 2008. Background Estimation and Removal Based on Range and Color. U.S. Patent 7,317,830. Filed Nov. 2003, Issued Jan 2008.
16. Darrell, Harville, Rahimi, Gordon. 2007. Three Dimensional Object Pose Estimation which Employs Dense Depth Information. U.S. Patent 7,158,656. Filed Aug. 2005, Issued Jan 2007.
17. Darrell, Harville, Rahimi, Gordon. 2006. 3D Pose Tracking with Linear depth and Brightness Constraints. U.S. Patent 7,003,134. Filed March 1999, Issued Feb. 2006.
18. Gordon, Darrell, Harville, Woodfill. 2003. Background Estimation and Removal Based on Range and Color. U.S. Patent 6,661,918. Filed Dec. 1998, Issued Dec. 2003.
19. Darrell, Gordon, Woodfill, Baker. 2002. A Method and Apparatus for Personnel Detection and Tracking. U.S. Patent 6,445, 810. Filed Dec. 2000, Issued Sept. 2002.
20. Darrell, Gordon, Woodfill, Baker. 2001. A Real-Time Open-background Virtual Mirror or Display with Face-Specific Visual Distortion. U.S. Patent 6,188,777. Filed Aug. 1997, Issued Feb. 2001.

Articles

1. G. Gordon, X. Chen, R. Buck, "[Person and Gesture Tracking with Smart Stereo Cameras](#)," In *Proceedings of SPIE Vol. 6805: Three-Dimensional image Capture and Applications*, (San Jose, CA), Jan. 2008.
2. J. Woodfill, R. Buck, D. Jurasek, G. Gordon, T. Brown. "[3D Vision: Developing an Embedded Stereo Vision System](#)," *IEEE Computer magazine*, May 2007.
3. J. Woodfill, G. Gordon, D. Jurasek, T. Brown, R. Buck, "[The Tyzx DeepSea G2 Vision System, A Taskable, Embedded Stereo Camera](#)," In *Proceedings of the IEEE Computer Society Workshop on Embedded Computer Vision, Conference on Computer Vision and Pattern Recognition*, (New York, NY), June 2006.
4. J. Woodfill, G. Gordon, R. Buck, [Tyzx DeepSea High Speed Stereo Vision System](#), In *Proceedings of the IEEE Computer Society Workshop on Real Time 3-D Sensors and Their Use, Conference on Computer Vision and Pattern Recognition*, (Washington, D.C.), June 2004.
5. G. Gordon, M. Billinghamurst, M. Bell, J. Woodfill, B. Kowalik, A. Erendi, J. Tilander "[The Use of Dense Stereo Range Data in Augmented Reality](#)", *Proceedings of the IEEE International Symposium on Mixed and Augmented Reality (ISMAR02)*, (Darmstadt, Germany), Sept 2002.
6. M. Harville, G. Gordon, J. Woodfill, "[Adaptive Background Subtraction Using Color and Depth](#)", *Proceedings of the IEEE International Conference on Image Processing*, (Thessoloniki, Greece), October 2001.
7. M. Harville, G. Gordon, J. Woodfill, "[Foreground Segmentation Using Adaptive Mixture Models in Color and Depth](#)", *Proceedings of the IEEE Workshop on Detection and Recognition of Events in Video*, (Vancouver, Canada), July 2001.

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11. G. Gordon, "[3D Pose Estimation of the Face from Video](#)", In *Face Recognition, From Theory to Applications*, H. Wechsler, P.J. Phillips, V. Bruce, F. Fogelman Soulie, and T. Huang (Eds.), NATO ASI Series F, Springer-Verlag, 1998.
12. T. Darrell, G. Gordon, J. Woodfill, M. Harville, "[Integrated person tracking using stereo, color, and pattern detection](#)", *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, (Santa Barbara, CA), June 1998.
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14. T. Darrell, G. Gordon, J. Woodfill, H. Baker, M. Harville, "[Robust, Real-time People Tracking in Open environments Using Integrated Stereo, Color, and Face Detection](#)", *Workshop on Visual Surveillance, International Conference on Computer Vision*, Bombay, India, January 1998.
15. T. Darrell, G. Gordon, J. Woodfill, H. Baker, "A Magic Morphin' Mirror", *SIGGRAPH '97 Visual Proceedings*, ACM Press. Los Angeles, CA, August 1997.
16. G. G. Gordon, W. G. Smith, "Reconstruction of Uninstrumented Live Entities into a DIS Environment", *Proceedings of the 14th Workshop on Standards for the Interoperability of Distributed Simulations*, Orlando, Florida, March, 1996.
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18. G. Gordon, M. Lewis, "[Face Recognition Using Video Clips and Mug Shots](#)", *Proceedings of the Office of National Drug Control Policy (ONDCP) International Technical Symposium* (Nashua, NH), October 1995.
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22. G. Gordon ``[Face Recognition Based on Depth and Curvature Features](#)'', in Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, (Champaign, Illinois), pp.108-110, June 1992.
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24. G. Gordon, ``[Face Recognition from Depth Maps and Surface Curvature](#)'', in Proc. of SPIE, Geometric Methods in Computer Vision, San Diego, July 1991. Vol. 1570.
25. G. Gordon, "[Shape from Symmetry](#)", in Proc. of SPIE, Intelligent Robots and Computer Vision VIII: Algorithms and Techniques, Philadelphia, November 1989. Vol.1192.
26. G. Gordon, ``Smoothing Range Data for Curvature Estimation'', in Active Perception and Robot Vision, Proceedings of the NATO Advanced Study Institute, A. K. Sood, H. Wechsler eds, Springer-Verlag, 1992. Presented in Maratea, Italy, July 1989.

Interactive Installations

1. T. Darrell, G.Gordon, M.Harville, J.Woodfill, H. Baker, A.Hertzmann, [Magic Morphin' Mirror/ Mass Hallucinations](#), An interactive art and technology installation, The Tech Museum of Innovation and other sites.

Books

1. P. W. Hallinan, G. Gordon, A.L. Yuille, P. Giblin, D. Mumford, [Two-and Three-Dimensional Patterns of the Face](#), A.K.Peters, 1999.

Theses

1. G. Gordon, [Face Recognition from Depth and Curvature](#), PhD Thesis, Harvard University, Division of Applied Sciences, November 1991.
2. G. Gordon, [Edge and Line Detection for Tape Head Inspection](#), MS Thesis, MIT Department of Electrical Engineering and Computer Science, June 1986.