

Curriculum Vitae

Alper Yilmaz, PhD

Associate Professor
Civil, Environmental and Geodetic Engineering
The Ohio State University

Personal statement

Dr. Yilmaz is an Associate Professor of Geodetic Engineering with appointments in Civil Engineering, and Computer Science and Engineering Departments at The Ohio State University. He is a senior member of IEEE and an active member of ASPRS, ISPRS and IAPR professional societies. Dr. Yilmaz is currently chairing the ISPRS Working Group 5 of Technical Commission II on Dynamic Scene Understanding. He is serving as Editor-In-Chief for the *Photogrammetric Engineering and Remote Sensing Journal*. He has served as Associate Editor for the *Computer Vision and Image Understanding Journal* between 2014 and 2016 and the *Machine Vision and Applications Journal* between 2006 and 2011. Dr. Yilmaz has organized a number of conferences on Photogrammetry and Computer Vision fields. Dr. Yilmaz's research has received over \$8M in extramural funding. Dr. Yilmaz has published over 100 journal and conference papers which received more than 7,500 citations. Among other honors, he was awarded the *Lumley Research Award* (OSU) in 2012, and the *Lumley Interdisciplinary Research Award* (OSU) in 2015 and honorable mention for the *Masao Horiba Award* (Japan) in 2016. He has advised 16 PhD students to completion who have found academic and industry positions in prominent institutions.

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Online Professional Profiles

Google Scholar	https://scholar.google.com/citations?user=MeQC1XYAAAAJ&hl=en
LinkedIn	https://www.linkedin.com/in/alper-yilmaz-b745761
Research Gate	https://www.researchgate.net/profile/Alper_Yilmaz3

Positions

6/2017 – present	Professor , Civil, Environmental and Geodetic Engineering, The Ohio State University
6/2017 – present	Professor (by courtesy), Computer Science and Engineering, The Ohio State University
9/2012 – 6/2017	Associate Professor , Civil, Environmental and Geodetic Engineering, The Ohio State University
9/2012 – 6/2017	Associate Professor (by courtesy), Computer Science and Engineering, The Ohio State University
9/2006 – 8/2012	Assistant Professor , Civil, Environmental and Geodetic Engineering, The Ohio State University
9/2010 – 8/2012	Assistant Professor (by courtesy), Computer Science and Engineering, The Ohio State University
8/2004 – 5/2006	Visiting Assistant Professor , Computer Science, Univ. Of Central Florida
1/2000 – 8/2004	Graduate Research Associate , Computer Science, Univ. Of Central Florida

Degrees

8/2004	Ph.D. , University Of Central Florida, Computer Science <i>Advisor:</i> Mubarak Shah, PhD <i>Dissertation title:</i> Object Tracking and Activity Recognition in Video Acquired Using Mobile Cameras
5/2001	M.S. , University Of Central Florida, Computer Science
9/1999	M.E. , Istanbul Technical University, Computer Engineering <i>Advisor:</i> Muhittin Gokmen <i>Thesis title:</i> Face Recognition Using Eigenhills
5/1997	B.S., Yildiz Technical University, Computer Science and Engineering

Honors & Awards

7/2016	Research. Honorable Mention. International Dr. Masao Horiba Award. Horiba Ltd., Japan
4/2015	Research. Lumley Interdisciplinary Research Award. College of Engineering. The Ohio State University
7/2013-2/2015	Extension. Member. OSU President and Provost's Leadership Institute. The Ohio State University
10/2013	Scholarship. Senior Member. The Institute of Electrical and Electronics Engineers.
4/2012	Research. Lumley Research Award. College of Engineering. The Ohio State University
11/2008	Scholarship. Duane C. Brown Photogrammetry Senior Award. The Ohio State University
3/2004	Research. Hillman Fellowship for Excellence in Research. Computer Science Department. University Of Central Florida (\$2,000)
4/2001	Research. Merit Graduate Fellowship. University Of Central Florida (\$1,000)
3/2000	Research. Merit Graduate Fellowship. University Of Central Florida (\$1,000)
5/1999	Research. Honors Fellowship for Academic Excellence. Turkish Informatics Foundation (\$10,000.00)

Peer Evaluation of Teaching

- 03/08/2016 by Prof. Halil Sezen (CE 6451 Photogrammetry)
- 03/18/2014 by Prof. Dorota Grejner-Brzezinska (CE 8454 Videogrammetry)
- 05/08/2012 by Prof. Ben Coifman (CE 406 Fundamentals of civil engineering analysis)
- 04/26/2011 by Prof. Mark McCord (CE 406 Fundamentals of civil engineering analysis)
- 11/05/2010 by Prof. Carolyn Merry (GS 628 Analytical photogrammetry I)
- 10/22/2009 by Prof. Dorota Brzezinska (GS 728 Digital photogrammetry II)
- 11/04/2008 by Prof. Rongxing Li (GS 728 Digital photogrammetry II)

Advised Graduate Students

Graduate Students (completed and current)

Category	Current	Complete
Post-Doctoral Fellow (mentor)	1	2
Doctoral student (Dissertation advisor)	8	16
Masters student (Thesis advisor)	0	8
Masters student (Advisor)	1	3
Totals	10	29

Post-Doctoral Fellows (Mentor)

1. 3/2015-present **Ashish Gupta**
2. 9/2013-8/2014 **Polun (Ryan) Lai**

Current Doctoral students (Dissertation Advisor)

1. 1/2017-present **Oliver Nina** (electrical and computer engineering)
2. 9/2016-present **Ji Hyun Li** (nuclear engineering)
3. 1/2016-present **Guanyu Xu** (geodetic science)
4. 1/2016-present **Michael Karnes** (mechanical engineering)
5. 8/2014-present **Nima Ajam** (civil engineering)
6. 9/2013-present **Changlin Xiao** (civil engineering)
7. 1/2013-present **Yujia Zhang** (geodetic science)
8. 8/2012-present **M. Taha Koroglu** (electrical and computer engineering)

Completed Doctoral students (Dissertation Advisor)

1. 3/2014-3/2017. **Sagar Deshpande**. Semi-automated methods to create a hydro-flattened DEM using Single Photon and Linear Mode LiDAR. Tenure Track Assistant Professor, Ferris State Univ.
2. 1/2013-5/2016. **Siavash HosseinyAlamdary**. Traffic Scene Perception using Multiple Sensors for Vehicular Safety Purposes. Current Position: Tenure Track Assistant Professor, Univ. of Twente, Netherlands.
3. 1/2014-11/2015. **Anuchit Sukcharoenpong**. "Shoreline Mapping with Integrated HSI-DEM using Active Contour Method." Current Position: Geospatial Information Researcher, Geoinformation and Space Technology Development Agency, Thailand Government.
4. 12/2012-5/2015. **Ding Li**. "ESA ExoMars PanCam Vision System Geometric Modeling and Evaluation." Current Position: Research Scientist, Trimble Inc.
5. 1/2010-5/2014. **Daniya Zamalieva**. "Transformational Models for Background Subtraction in Moving Cameras." Current Position: Research Scientist, Amazon A9. (co-advised with J. Davis)
6. 0/2009-19/2014. **Young Jin Lee**. "Real-Time Object Motion and 3D Localization From Geometry." Current Position: Research Scientist, Trimble Inc.
7. 1/2010-12/2013. **Bernard Abayowa**. "Automatic Registration of Optical Aerial Imagery to a LIDAR Point Cloud for Generation of Large Scale City Models" (co-advised with R. Hardy at the Univ. of Dayton) Current Position: Program Director at US Air Force Research Labs.
8. 8/2008-12/2013. **Heewon Lee**. "Exploiting dichromatic reflection model of an imaged object." (co-advised with H. Hemami)
9. 1/2008-12/2013. **Mohammed Al-Shahri**. "Line Matching in a Wide-Baseline Stereo-View." Current Position: Tenure track faculty at Sultan Qaboos University, Omman.
10. 6/2009-7/2013. **Kyoungjin Park**. "Generating Thematic Maps From Hyperspectral Images Using A Bag-of-Materials Model." Software Engineer at Icaros Inc.
11. 8/2007-12/2012. **Jinwei Jiang**. "Collaborative Tracking of Image Features Based on Projective Invariance." Current Position: Research Scientist at Ford Motor Inc.
12. 4/2008-8/2012. **Panu Srestasathiern**. "Line Based Estimation of Object Space Geometry and Camera Motion." Current Position: Geospatial Information Researcher, Geoinformation and Space Technology Development Agency, Thailand Government.
13. 3/2006-8/2011. **Gabor Barsai**. "Data registration without explicit correspondence for estimating camera orientation parameters." Current Position: Tenure track faculty at Ferris State University, Michigan.
14. 1/2008-8/2011. **Diego Mandelli**. "Scenario Clustering and Dynamic PRA." Current Position: Idaho National Labs. (co-advised with T. Aldemir)
15. 8/2007-12/2010. **Lei Ding**. "From pixels to people: graph based methods for grouping problems in computer vision." Current Position: Research Scientist at Paypal Inc. (co-advised with M. Belkin)
16. 1/2007-2/2010. **Po-Lun Lai**. "Shape recovery by exploiting planar topology in 3D projective space." Current Position: Research Scientist at Trimble Inc.

Current Masters Students

1. 8/2015 **Abdullah Alanazi**
2. 8/2015 **Yuchen Lai**
3. 8/2015 **Sai Luo**

Completed Masters Students

1. 8/2015-4/2017 **Nima AjamGard**. "Configuration of large camera networks."
2. 8/2015-4/2017 **Yuchen Lai**, "Augmented Reality Visualization of Building Information Models."

3. 8/2015-3/2017 **Abdullah Alanazi**, "Evaluation the accuracy of GIS data acquired from OpenStreetMaps by comparing against ISPRS benchmark data."
4. 8/2014-5/2016 **Adam Mattmuller** (co-advised with Prof. Tunc Aldemir), Nuclear Power Plant Maintenance Improvements via Implementation of Wearable Technology."
5. 1/2011-12/2014 **Andrew Kerns** (non-thesis), The Ohio State University
6. 9/2011-5/2013 **Jordan Lawver**, "Robust Feature Tracking in Image Sequences Using View Geometric Constraints."
7. 1/2011-5/2012 **Kashyap Maduri**, (non-thesis)
8. 7/2008-6/2011 **Vinod Khare**, "Precise image registration and occlusion detection."
9. 1/2009-9/2010 **Mustafa Ozendi**, "Viewpoint independent image classification and retrieval."
10. 1/2008-5/2010 **Rhae-Sung Kim**, "Spectral matching using bitmap indices of spectral derivatives for the analysis of hyperspectral imagery."
11. 8/2006-12/2008 **Panu Srestasathiern**, "View invariant planar object recognition."
12. 9/2006-5/2008 **Kyounghin Park**, "Design of web services system for digital photogrammetry workstation based on service oriented architecture."

Undergraduate Senior Thesis Advisor

1. 5/2011 **Jordan Lawver**, "Three-Dimensional Volumetric Scene Recovery From Multiple Stereo Views Using Voxel Division Techniques."

Noteworthy accomplishments of advisees

1. **Taha Koroglu:**
Recipient of competitive Turkish Government Fellowship (2012)
2. **Siavash HosseinyAlamdary:**
Awarded second place in TIC'14: The ISPRS Tracking and Imaging Challenge (2014)
3. **Jordan Lawver:**
US Geospatial Intelligence Foundation Scholarship (2012);
OSU College of Engineering Undergraduate Research Fellowship (2011);
Honors Thesis (2011);
Best Paper Award at ISA Workshop (2013)
4. **Po-Lun Lai:**
OSU Duane Brown Junior Award (2010);
IEEE travel fellowship recipient (2008);
Post Doctoral Research at Mechanical Engineering Department at OSU (2011)
5. **Lei Ding:**
OSU Presidential Fellowship (2008);
Post Doctoral Research at Electrical Engineering Dept. at Columbia University
6. **Jinwei Jiang:**
OSU University Fellowship (2007)
7. **Panu Srestasathiern:**
Recipient of competitive Thailand Government Fellowship (2008)
8. **Mohammed Al-Shahri:**
Recipient of competitive Oman Government Fellowship (2008)

Advised Visiting Scholars and Researchers

1. 7/2017-current Zhao Yafeng
2. 4/2016-current Meng Yi
3. 9/2015-3/2017 Shirui Li
4. 7/2016-12/2016 Mancheng Feng
5. 7/2016-12/2016 Zeshu Zhang
6. 6/2015-3/2016 Huan Chang
7. 8/2014-7/2015 Feng Wang
8. 1/2015-6/2015 Prashast Bindal
9. 9/2014-8/2014 Weisen Pan
10. 5/2013-4/2014 Levent Ozparlak

11. 4/2011-4/2012 Akif Durdu
12. 6/2011-9/2011 Aliye Kayis
13. 8/2009-8/2010 Haluk Eren
14. 3/2009-3/2010 Jae-Soo Cho
15. 8/2008-8/2009 Kong-Hyun Yun

Curriculum Development

I have developed/taught the following courses:

The Ohio State University

GS831 Advanced pattern recognition methods in digital mapping	2008 ^{WI} , 2010 ^{WI}
GS830 Advanced methods of processing imagery in photogrammetry	2007 ^{SP} , 2009 ^{SP}
GS774 Spectral methods and raster geometry in digital mapping	2007 ^{WI} , 2009 ^{WI} , 2011 ^{WI}
GS728 Digital photogrammetry II	2008 ^{AU} , 2009 ^{AU} , 2012 ^{WI}
GS629 Digital photogrammetry I	2008 ^{SP} , 2010 ^{SP} , 2011 ^{SP}
GS628 Analytical photogrammetry I	2010 ^{AU}
CE406 Fundamentals of civil engineering analysis	2011 ^{SP} , 2012 ^{SP}
CE2060 Numerical methods	2012 ^{AU} , 2013 ^{SP} , 2013 ^{AU} , 2014 ^{AU} , 2015 ^{AU} , 2016 ^{AU}
CE6451 Photogrammetry	2013 ^{SP} , 2015 ^{SP} , 2016 ^{SP} , 2017 ^{SP}
CE8454 Videogrammetry	2014 ^{SP}

University of Central Florida

CAP6412 Advanced computer vision	2005 ^{SP}
CAP6411 Computer vision systems	2006 ^{SP}
CAP5415 Computer vision	2004 ^{AU} , 2005 ^{AU}
COP3223 C programming language	2003 ^{SP}

List of Books, Chapters, Articles and Other Published Papers

Table listing types and quantities of published papers

Published Work Type	Number of Publications
Patents	2
Chapters in Edited Books	8
Peer-Reviewed Journal Articles	25
Peer-reviewed Papers in Proceedings	42
Papers in Proceedings	49
Total	126

Table of acceptance rates for conference

Peer-Reviewed Conference	Acceptance rate
IEEE Int. Conf. on Computer Vision (oral+poster)	30 %
IEEE Conf. on Computer Vision and Pattern Recognition (oral+poster)	35 %
Int. Conf. on Pattern Recognition (oral+poster)	55 %
ISPRS Ann. Photogrammetry, Remote Sensing and Spatial Inf. Sci. (oral)	50 %
European Conference on Computer Vision (oral+poster)	35 %

Table of journal impact factors

Journal Name	Impact Factor	# of pubs
ACM Journal of Computing Surveys	3.373	1
Computer Vision and Image Understanding	2.134	5
IEEE Trans. on Pattern Analysis and Machine Intelligence	5.781	1
Image and Vision Computing Journal	1.766	1
International Journal of Computer Vision	3.81	1

Machine Vision and Applications	1.351	1
Pattern Recognition Journal	3.399	2
Plos One	3.234	1
IEEE Transactions on Geoscience and Remote Sensing	3.36	1
ISPRS Journal of Photogrammetry and Remote Sensing	4.188	2
IEEE Transactions On Image Processing	3.735	2
Journal of Field Robotics	2.152	1
Journal of Reliability Engineering and System Safety	2.498	3
Journal of Biomedical Optics	2.556	1
International Journal of Remote Sensing	2.76	1
Journal of Automation in Construction	2.442	1

Invention Disclosures

- [1] A. Yilmaz, A. Gupta. Topology Based Large Scale Indoor/Outdoor Geo-Navigation for Mobile Platforms Guided by GIS and BIM. OSU TCO TechID T2016-075. Filed 10/2015.
- [2] A. Yilmaz, E. Martin. A wearable computing system for guided pain-management. OSU TCO TechID: T2015-154. Filed 1/2015.
- [3] A. Yilmaz, N. Hall, C. Hitchcock, Y. Lee, E. Martin, S. Nichols, E. Ozer, S. Povoski, J. Sachire, R. Xu. A Wearable Integrated System of Augmented Reality for Targeted Pathologic Specimen Sampling. OSU TCO TechID: T2014-265. Filed 5/2014.
- [4] A. Yilmaz, N. Hall, Y. Lee, E. Martin, E. Ozer, R. Xu. A wearable navigation system for image-guided cancer surgery. OSU TCO TechID: T2014-221. Filed 4/2014

Patents

- [1] A. Yilmaz, E. Martin, C. Hitchcock, S. Povoski, E. Ozer and R. Xu. Methods and systems for performing navigation assisted medical procedures. US Patent Application Number 14/549,258. Filing Date: November 20, 2014. **Published.**
- [2] A. Yilmaz and A. Gupta. Systems, Methods, and Devices for Geo-Localization. US Patent Application Number 15/048,285. Filing Date: February 2016. **Patent Pending.**

Chapters in Books

- [1] Ashish Gupta and Alper Yilmaz. 2017. Social Network Inference in Video, in Signal Processing, Volume 6, Chapter 11, pages 1-33, Elsevier. **(accepted)**
- [2] L. Ding and A. Yilmaz. 2014. Learning Social Relations from Videos: Features, Models and Analytics. In Human-Centered Social Media Analytics. Edited by Y.R. Fu and S. Rees. New York, NY: Springer Verlag. DOI 10.1007/978-3-319-05491-9_2
- [3] F. Porikli and A. Yilmaz. 2012. Object Tracking. In Video Analytics for Business Intelligence. Edited by C. Shan, F. Porikli, T. Xiang and S. Gong. New York, NY: Springer Verlag. ISBN 978-3-642-28597-4
- [4] A. Durdu, I. Erkmén, A. Erkmén, A. Yilmaz. 2012. Robotic Hardware and Software Integration for Changing Human Intentions. In Prototyping of Robotic Systems: Applications of Design and Implementation. Edited by T. Sobh, X. Xiong. IGI Global Publisher. ISBN13: 978-1-466-60176-5
- [5] A. Yilmaz. 2011. Detecting and Tracking the Action Content. In Computer Analysis of Human Behavior. Advances in Pattern Recognition. Edited by Theo Gevers and Albert Ali Salah. New York, NY: Springer Verlag. 41-68. ISBN 978-0-85729-993-2
- [6] A. Yilmaz. 2009. Active Contours: Snakes. In Wiley Encyclopedia of Computer Science and Engineering. Vol. 1. Edited by Benjamin W. Wah. New Jersey: John Wiley & Sons. 11-13. ISBN: 978-0-471-38393-2
- [7] A. Yilmaz. 2009. Level Set Methods. In Wiley Encyclopedia of Computer Science and Engineering. Vol. 3. Edited by Benjamin W. Wah. New Jersey: John Wiley & Sons. 1731-1734. ISBN: 978-0-471-38393-2
- [8] A. Yilmaz. 2009. Contour Tracking. In Wiley Encyclopedia of Computer Science and Engineering. Vol. 1. Edited by Benjamin W. Wah. New Jersey: John Wiley and Sons. 668-672. ISBN: 978-0-471-38393-2

Peer-Reviewed Journal Articles

- [1] C. Zhang, P. Tang, N. Cooke, V. Buchanan, A. Yilmaz, S. W. Germain, R. L. Boring, S. Akca-Hobbins, A. Gupta. May 2017. Human-centered automation for resilient nuclear power plant outage control. Journal of Automation in Construction. DOI: 10.1016/j.autcon.2017.05.001

- [2] S. HosseinyAlamdary and A. Yilmaz. March 2017. A Bayesian Approach to Traffic Light Detection and Mapping. *ISPRS Journal of Photogrammetry and Remote Sensing*. Vol. 125, pp 184-192. DOI: 10.1016/j.isprsjprs.2017.01.008
- [3] S. Deshpande and A. Yilmaz. 2017. A semi-automated method to create a LiDAR-based hydro-flattened DEM. *International Journal of Remote Sensing*. Vol. 38, Issue: 5, p. Pages: 1365-1387. DOI: 10.1080/01431161.2017.1280632
- [4] Z. Zhang, J. Pei, D. Wang, Q. Gan, J. Ye, J. Yue, B. Wang, S. Povoski, E. Martin, Jr, C. Hitchcock, A. Yilmaz, M. Tweedle, P. Shao and R. Xu. 2016. A Wearable Goggle Navigation System for Dual-mode Optical and Ultrasound Localization of Suspicious Lesions: Validation Studies Using Tissue-simulating Phantoms and An Ex Vivo Human Breast Tissue Model. *Plos One*. Volume:11, Issue:7, ISSN: 1932-6203
- [5] A. Sukcharoenpong, A. Yilmaz, and R. Li. March 2016. An Integrated Active Contour Approach to Shoreline Mapping using HSI and DEM. *IEEE Transactions on Geoscience and Remote Sensing*. Volume:54, Issue: 3, p. 1586 – 1597. DOI 10.1109/TGRS.2015.2483641
- [6] B. Abayowa, R. Hardie and A. Yilmaz. August 2015. Automatic Registration of Optical Aerial Imagery to a LiDAR Point Cloud for Generation of City Models. *ISPRS Journal of Photogrammetry and Remote Sensing*. Vol. 106, p. 68-81. DOI 10.1016/j.isprsjprs.2015.05.006
- [7] D. Zamalieva and A. Yilmaz. 2014. Background subtraction for the moving camera: A geometric approach. *Computer Vision and Image Understanding*, Vol 127, p. 73-85. DOI 10.1016/j.cviu.2014.06.007
- [8] M. Al-Shahri and A. Yilmaz. September 2014. Line Matching in Wide-Baseline Stereo: A Top-Down Approach. *IEEE Trans. on Image Processing*. Vol 23, Issue 9. p. 4199-4210. DOI 10.1109/TIP.2014.2331147
- [9] J. Jiang and A. Yilmaz. March 2014. Persistent Feature Tracking Using Scene Geometry. *Computer Vision and Image Understanding*, Vol 120 p 141-156. DOI 10.1016/j.cviu.2013.10.009
- [10] R. Li, S. He, B. Skopljak, X. Meng, P. Tang, A. Yilmaz, J. Jiang, C. Oman, M. Banks and S. Kim. March 2014. A Multi-sensor Integration Approach toward Astronaut Navigation for Landed Lunar Missions. *Journal of Field Robotics*, (31)2 p. DOI 245-262. 10.1002/rob.21488
- [11] D. Zamalieva, A. Yilmaz and T. Aldemir. December 2013. A probabilistic model for online scenario labeling in dynamic event tree generation. *Journal of Reliability Engineering and System Safety*, Vol. 120 p. 18-26. DOI 10.1016/j.res.2013.02.028
- [12] D. Mandelli, A. Yilmaz, T. Aldemir, K. Metzroth, R. Denning. July 2013. Scenario Clustering and Dynamic Probabilistic Risk Assessment. *Journal of Reliability Engineering & System Safety*. Vol. 115, p. 146-160. DOI 10.1016/j.res.2013.02.013
- [13] D. Zamalieva, A. Yilmaz and T. Aldemir. February 2013. Online Scenario Labeling using a Hidden Markov Model for Assessment of Nuclear Plant State. *Journal of Reliability Engineering & System Safety*, Vol. 110 p. 1-13. DOI 10.1016/j.res.2012.09.002
- [14] K. Mitra, J. Melvin, S. Chang, K. Park, A. Yilmaz, S. Melvin and R. Xu. November 2012. Indocyanine Green loaded microballoons for biliary imaging in cholecystectomy. *Journal of Biomedical Optics*. Vol. 17. No. 4 pp.116025. DOI 10.1117/1.JBO.17.11.116025
- [15] L. Ding, A. Yilmaz and R. Yan. April 2012. Interactive Image Segmentation Using Dirichlet Process Multiple View Learning. *IEEE Trans. on Image Processing*. Vol. 21. No.4, pp. 2119-2129. DOI 10.1109/TIP.2011.2181398
- [16] P. Srestasathiern and A. Yilmaz. November 2011. Planar Shape Representation and Matching Under Projective Transformation. *Computer Vision and Image Understanding*. Vol. 115. No. 11, pp. 1525-1535. DOI 10.1016/j.cviu.2011.07.004
- [17] A. Yilmaz. March 2011. Kernel Based Object Tracking Using Asymmetric Kernels with Adaptive Scale and Orientation Selection. *Machine Vision and Applications Journal*. Vol. 22, no. 2: 255-268. DOI 10.1007/s00138-009-0237-4
- [18] L. Ding and A. Yilmaz. May 2010. Interactive image segmentation using probabilistic hypergraphs. *Pattern Recognition*. Vol. 43, no. 5: 1863-1873. DOI 10.1016/j.patcog.2009.11.025
- [19] A. Yilmaz and M. Shah. March 2008. A Differential Geometric Approach To Representing the Human Actions. *Computer Vision and Image Understanding*. Vol. 109, no. 3: 335-351. DOI 10.1016/j.cviu.2007.09.006
- [20] A. Yilmaz, O. Javed and M. Shah. January 2006. Object Tracking: A Survey. *ACM Journal of Computing Surveys*. Vol. 38, no. 4. DOI 10.1145/1177352.1177355
- [21] A. Yilmaz and M. Shah. November 2006. Matching Actions In Presence Of Camera Motion. *Computer Vision and Image Understanding*. Vol. 104, no. 2-3. 221-231. DOI: 10.1016/j.cviu.2006.07.012

- [22] A. Yilmaz, X. Li and M. Shah. 2004. Contour Based Object Tracking with Occlusion Handling in Video Acquired Using Mobile Cameras. *IEEE Trans. on Pattern Analysis and Machine Intelligence*. Vol. 26, no. 11: 1531-1536. ISSN 0162-8828
- [23] A. Yilmaz, K. Shafique and M. Shah. July 2003. Target Tracking in Airborne Forward Looking Infrared Imagery. *Image and Vision Computing*. Vol. 21, no. 7: 623-635. DOI 10.1016/S0262-8856(03)00059-3
- [24] C. Rao, A. Yilmaz and M. Shah. November 2002. View Invariant Representation and Recognition of Actions. *Int. Journal of Computer Vision*. Vol. 50, no. 2: 203-226. ISSN 0920-5691
- [25] A. Yilmaz and M. Gokmen. 2001. Eigenhill vs. Eigenface and Eigenedge. *Pattern Recognition*. Vol. 34, No 1: p. 181-184. ISSN 0031-3203

Peer Reviewed Papers in Proceedings

- [1] C. Xiao and A. Yilmaz. 09.2017. A Unique Target Representation And Voting Mechanism For Visual Tracking. *IEEE Int. Conf. Image Processing*. Beijing, China.
- [2] C. Xiao and A. Yilmaz. 06.2017. Visual Tracking Utilizing Object Concept from Deep Learning Network. *ISPRS Annals of Photogrammetry and Remote Sensing Spatial Information Science*, IV-1-W1, 125-132, <https://doi.org/10.5194/isprs-annals-IV-1-W1-125-2017>. Hannover, Germany
- [3] A. Gupta and A. Yilmaz. 04.2017. Subspace Projection Methods for Large Scale Image Data Analysis. *IEEE International Conference on Multimedia Big Data (BigMM)*. Laguna Hills, CA, USA
- [4] A. Gupta and A. Yilmaz. 10/2016. Indoor Localization using Building Information Models. 8th ACM SIGSPATIAL International Workshop on Indoor Spatial Awareness (ISA). San Francisco, CA.
- [5] A. Gupta and A. Yilmaz. 10/2016. Indoor Positioning System Using Visual and Inertial Sensors. *IEEE SENSORS*. Orlando, FL.
- [6] C. Xiao and A. Yilmaz. 12/2016. Efficient Tracking with Distinctive Target Colors and Silhouette. *International Conference On Pattern Recognition (ICPR)*. Cancun, Mexico.
- [7] A. Gupta, H. Chang and A. Yilmaz. 07/2016. GPS-Denied Geo-Localization Using Visual Odometry. *ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci. Volume III-3*, p. 263-270, Prague doi:10.5194/isprs-annals-III-3-263-2016.
- [8] S. HosseinyAlamdary and A. Yilmaz. 07/2016. Traffic light detection using conic section geometry. *ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci. Volume III-1*, p. 191-200 doi:10.5194/isprs-annals-III-1-191-2016 Prague.
- [9] S. HosseinyAlamdary and A. Yilmaz. 12/2015. Surface Recovery: Fusion of Image and Point Cloud. *IEEE ICCV Multi-Sensor Fusion Workshop*. Santiago, Chili.
- [10] J. Huai, Y. Zhang and A. Yilmaz. 09/2015. Real-time large scale 3D reconstruction by fusing Kinect and IMU data. *ISPRS Ann. Photogrammetry Remote Sensing Spatial Information Science*, II-3-W5, 491-496, 2015. La Grande Motte, France.
- [11] HosseinyAlamdary and A. Yilmaz. 2015. 3d Super-Resolution Approach For Sparse Laser Scanner Data. *ISPRS Ann. Photogrammetry Remote Sensing Spatial Information Science*, II-3/W5, 151-157, doi:10.5194/isprsannals-II-3-W5-151-2015, 2015
- [12] D. Zamalieva, A. Yilmaz and J. Davis. 09/2014. A Multi-Transformational Model for Background Subtraction with Moving Cameras. *European Conference on Computer Vision*. Switzerland. Vol. 8689, pp. 803-817.
- [13] S. HosseinyAlamdary, P.-L. Lai, A. Yilmaz. 2014. Merging images, trajectory, and point clouds for 3D object tracking. *ISPRS Photogrammetric Computer Vision TCIII Midterm Symposium*. Zurich. Switzerland (September) (**Second place award**)
- [14] D. Li, R. Li, A. Yilmaz. 2014. ESA ExoMars: Prelaunch PanCam geometric modeling and accuracy assessment. *ISPRS Photogrammetric Computer Vision TCIII Midterm Symposium*. Zurich. Switzerland (September)
- [15] S. HosseinyAlamdary and A. Yilmaz. 11/2014. Motion Vector Field Estimation Using Brightness Constancy Assumption and Epipolar Geometry Constraint. *ISPRS Annals of Photogrammetry Remote Sensing Spatial Information Science*, II-1, 9-16, doi:10.5194/isprsannals-II-1-9-2014
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- [17] Y. Lee and A. Yilmaz. 2013. Real-time Object Detection and 3D Positioning in a Multiple Camera Setup. *IISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci.*, II-3-W2, 31-35. Antalya, Turkey. (November)

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- [19] J. Jiang and A. Yilmaz. 2011. Good Features to Track: A View Geometric Approach. IEEE Workshop on Mobile Vision (In conjunction with ICCV). Barcelona, Spain. (November)
- [20] A. Durdu, I. Erkmén, A. Erkmén and A. Yilmaz. 2011. Morphing Estimated Human Intention via Human-Robot Interactions. International Conference on Intelligent Automation and Robotics (ICIAR). San Francisco, CA (October), pp. 354-359.
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- [23] L. Ding and A. Yilmaz. 2010. Enhancing Interactive Image Segmentation with Automatic Label Set Augmentation. In: Proc. of European Conference on Computer Vision (ECCV). Crete, Greece. (September): Vol 6316. pp. 575-588.
- [24] L. Ding and A. Yilmaz. 2010. Learning Relations among Movie Characters: A Social Network Perspective. In: Proc. of European Conference on Computer Vision (ECCV). Crete, Greece. (September): pp. 410-423. DOI: 10.1007/978-3-642-15561-1_30
- [25] K. Park and A. Yilmaz. 2010. Social Network Approach to Analysis of Soccer Game. In: International Conf. on Pattern Recognition (ICPR), *oral presentation*. Istanbul, Turkey: IAPR. (August 21), pp. 3935 – 3938. DOI: 10.1109/ICPR.2010.957
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- [27] P. Lai and A. Yilmaz. 2009. Shape Recovery Using Rotated Slicing Planes. In: Int. Congress on Image and Signal Processing (CISP). Tianjin, China. (October 17)
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- [30] Yilmaz and G. Barsai. 2008. A View-Geometric Approach to View and Occlusion Invariant Geographic Shape Recognition and Retrieval. In: International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences (ISPRS). B3b, Vol. XXXVII. Beijing, China. (July): 457-463.
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Conference Papers in Proceedings

- [1] N. AjamGard and Alper Yilmaz. 03/2017. Placing and Orienting a Network of Cameras Using Irradiance/Exposure-Added Camera Model and BIM. ASPRS Annual Conf. Imaging and Geospatial Technology Forum. Baltimore, MD
- [2] S. Deshpande and A. Yilmaz. 03/2017. A method to hydroflatten Single Photon LiDAR. ASPRS Annual Conf. Imaging and Geospatial Technology Forum. Baltimore, MD
- [3] M. Yi, A. Yilmaz and A. Gupta. 03/2017. Histogram intersection kernel with spatial pyramid matching for plant diseases classification. Baltimore, MD
- [4] M. Karnes, A. Gupta and A. Yilmaz. 09/2016. 3D Body Mapping For Real-Time Muscle Volume Assessment of Astronauts During LDEM. International Astronautical Congress. Guadalajara, Mexico.
- [5] P. Tang, C. Zhang, A. Yilmaz, N. Cooke, R. Boring, A. Chasey, S. Jones, T. Vaughn. 07/2016. Automatic Imagery Data Analysis for Diagnosing Human Factors in the Outage of a Nuclear Plant. International Conference on Human-Computer Interaction. Toronto, Canada.
- [6] Y. Zhang and A. Yilmaz. 07/2016. Structured light based 3D scanning for specular surface by the combination of gray code and phase shifting. Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., Vol. XLI-B3. Pp. 137-142 Prague, Czech Republic. doi:10.5194/isprs-archives-XLI-B3-137-2016
- [7] S. Deshpande and A. Yilmaz. 04/2016. A semi-automatic method to Hydro-flatten LiDAR data. ASPRS Imaging & Geospatial Technology Forum. Fort Worth, TX.
- [8] Z. Zhang, J. Pei, D. Wang, C. Hu, J. Ye, Q. Gan, P. Liu, J. Yue, B. Wang, P. Shao, S. Povoski, E. Martin, Jr., A. Yilmaz, M. Tweedle and R. Xu. 2016. A Google Glass navigation system for ultrasound and fluorescence dual-mode image-guided surgery. SPIE Photonics West. February 2016. San Francisco, CA.
- [9] C. Zhang, P. Tang, A. Yilmaz, N. Cooke, A. Chasey, R. Boring, T. Vaughn, and S. Jones. 2016. Video-based Crane-Related Workflow Control Framework for Nuclear Power Plant Outages. Association for Automation and Robotics in Construction. July 18. Auburn, Alabama
- [10] R.X. Xu, A. Yilmaz, P. Shao, Z. Zhang, W. Ren, P. Liu, J. Pei, T.F. Michael, S. Povoski, E. Martin. 2015. A wearable surgical navigation system for sentinel lymph node mapping and image-guided biopsy. Biomedical Engineering Society (BMES) Annual Meeting. October 7-10. Tampa, United States.
- [11] M. Alshahri and A. Yilmaz. 2015. A Robust Line Feature Matching Method In A Wide-Baseline Views. ASPRS Imaging & Geospatial Information Forum. Tampa Florida (May).
- [12] RS Kim, A. Yilmaz. 2014. Spectral Matching using Bitmap Indices of Spectral Derivatives for the Analysis of Hyperspectral Imagery. International Conference on Environmental Science and Technology. Houston, Texas (June).
- [13] D. Zamalieva, Z. Jankovsky, A. Yilmaz, T. Aldemir and R. Denning. 2014. Automated Selection of Number of Clusters for Determining Proliferation Resistance Measures. Proc. of Probabilistic Safety Assessment and Management Topical Meeting. Honolulu, Hawaii (June)
- [14] M. Al-Shahri and A. Yilmaz. 2013. Framework for Line Feature Matching Across Images. ASPRS 2013 Annual Conference, Maryland (March)
- [15] D. Mandelli, C. Smith, A. Yilmaz and T. Aldemir. 09/2013. Mining nuclear transient data through symbolic conversion. International Topical Meeting on Probabilistic Safety Assessment and Analysis (PSA). Columbia, South Carolina.

- [16] D. Zamalieva, A. Yilmaz, T. Aldemir and R. Denning, "Online labeling of dynamic event tree scenarios using Observable Operator Models," International Topical Meeting on Probabilistic Safety Assessment and Analysis (PSA), 09/2013.
- [17] Z. Jankovsky, D. Zamalieva, A. Yilmaz, R. Denning and T. Aldemir, "A clustering analysis of probabilistic proliferation resistance measures in an example nuclear fuel system," International Topical Meeting on Probabilistic Safety Assessment and Analysis (PSA), 09/2013. **(best student paper award)**
- [18] D. Zamalieva, A. Yilmaz and T. Aldemir, "Thresholding strategies for Dynamic Event Tree online labeling with Hidden Markov Models," American Nuclear Society Winter Meeting and Nuclear Technology Expo (ANS), 11/2013. Washington, DC.
- [19] D. Mandelli, C. Smith, C. Rabiti, A. Alfonsi, R. Youngblood, V. Pascucci, B. Wang, D. Maljovec, P. T. Bremer, T. Aldemir, A. Yilmaz, D. Zamalieva, "Dynamic PRA: an Overview of New Algorithms to Generate, Analyze and Visualize Data", American Nuclear Society Winter Meeting and Nuclear Technology Expo (ANS), 11/2013. Washington, DC., 949-953
- [20] Z. Jankovsky, D. Zamalieva, R. Denning, A. Yilmaz and T. Aldemir, "A Comparison of Various Clustering Schemes for Proliferation Resistance Measures," American Nuclear Society Winter Meeting (ANS), 2013.
- [21] P. Srestasathiern, A. Yilmaz. Jan 2012 "Recovering projective structure and motion from straight lines." In: Evolutionary And Bio-Inspired Computation: Theory And Applications Vol. 8402 BELLINGHAM: Spie-Int Soc Optical Engineering.
- [22] H. Lee and Alper Yilmaz. 2012. Intrinsic Color from a Single Outdoor Image. ASPRS Annual Conference. Sacramento, CA (March)
- [23] D. Zamalieva, A. Yilmaz, T. Aldemir, "Online Scenario Classification in Dynamic Event Tree Generation Using a Statistical Markov Model", Proc.9th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-9), Chung-Hwa Nuclear Society, Taipei, Taiwan, September, 2012. Kaohsiung City, Taiwan.
- [24] Lee, Young-Jin; Yilmaz, Alper. Jan 2011. "Boresight Calibration of the Aerial Multi-Head Camera System." In: Evolutionary And Bio-Inspired Computation: Theory And Applications V. 8059 Bellingham: Spie-Int Soc Optical Engineering. pp. 805-908. (Published).
- [25] Y. Lee and A. Yilmaz. 2011. Boresight Calibration of the Aerial Multi-Head Camera System. SPIE Evolutionary and Bio-Inspired Computation: Theory and Applications. Orlando, FL (April).
- [26] K. Metzroth, D. Mandelli, A. Yilmaz, R. Denning and T. Aldemir. 2011. A Comparison of Scenario Binning Methods for Dynamic Probabilistic Risk Assessment. In: European Safety and Reliability Conference. Troyes, France. (September)
- [27] D. Mandelli, A. Yilmaz and T. Aldemir. 2011. Scenario Analysis and PRA: Overview and Lessons Learned. In: European Safety and Reliability Conference. Troyes, France. (September)
- [28] D. Zamalieva, A. Yilmaz and T. Aldemir. 2011. A Probabilistic Model for Online Scenario Labeling in Dynamic Event Tree Generation. In: European Safety and Reliability Conference. Troyes, France. (September)
- [29] D. Mandelli, A. Yilmaz and T. Aldemir. 2011. Data Processing Methodologies Applied to Dynamic PRA: an Overview. In: Int. Topical Meeting on Probabilistic Safety Assessment and Analysis. Wilmington, NC. (March)
- [30] D. Zamalieva, A. Yilmaz and T. Aldemir. 2011. Online State Estimation in Dynamic Event Trees for a Level Controller Dataset. In: International Topical Meeting on Probabilistic Safety Assessment and Analysis. LaGrange Park, IL. (March)
- [31] D. Mandelli, A. Yilmaz, T. Aldemir. 2011. Clustering Scenarios on Manifolds. In: Proceedings of the American Nuclear Society, Vol 104, 391-393.
- [32] T. Aldemir, U. Catalyurek, R. Denning, C. Smidts, X. Sun, A. Yilmaz. 2011. Method and Tool Development to Support Systematic Quantification of Uncertainties. In: Transactions of American Nuclear Society. Vol. 104. 954-956 (June)
- [33] D. Mandelli, A. Yilmaz, T. Aldemir. 2011. Clustering Scenarios on Manifolds: an Application to Scenario Analysis using Principal Component Analysis. In: Transactions of American Nuclear Society. Vol. 105, 521-523 (November)
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- [35] V. Khare, A. Yilmaz and Olga Mendoza-Schrock. 2010. Precise Image Registration and Occlusion Labeling. In: IEEE NAECON. Dayton, OH. (July 14)

- [36] Y. Lee, A. Yilmaz and O. Mendoza-Schrock. 2010. In-flight Camera Platform Calibration of the Aerial Multi-Head Camera System. In: IEEE NAECON. Dayton, OH. (July 14): 1-6.
- [37] D. Mandelli, A. Yilmaz, K. Metzroth, R. Denning and T. Aldemir. 2010. Scenario Aggregation and Analysis via Mean-Shift Methodology. In: Int. Congress on Advances in Nuclear Power Plants. San Diego, CA. (June): 990-994.
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- [39] T. Aldemir, A. Yilmaz and D. Mandelli. 2010. Scenario Aggregation in Dynamic PRA Uncertainty Quantification. In: Proceedings of the American Nuclear Society. Vol. 102. San Diego, CA. (June): 246-249.
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- [42] I. Lee, S. He, P. Lai and A. Yilmaz. 2010. Building Point Grouping Using View-Geometry Relations. In: ASPRS Annual Conference. San Diego, CA. (April 25)
- [43] K. Park and A. Yilmaz. 2010. A Social Network Analysis Approach to Analyze Road Networks. In: ASPRS Annual Conference. San Diego, CA. (April 25)
- [44] R. Li, S. He, B. Skopljak, J. Jiang, P. Tang, A. Yilmaz, M. Banks and C. Oman. 2010. Development of a Lunar Astronaut Spatial Orientation and Information System (LASOIS). In: ASPRS Annual Conference. San Diego, CA. (April 25)
- [45] R. Li, B. Wu, B. Skopljak, S. He, Y. Lee, A. Yilmaz, J. Jiang, M. Banks, C. Oman, and K. Bhasin. 2009. Prototype Development for a Lunar Astronaut Spatial Orientation and Information System. In: NLSI Lunar Science Forum: NASA. (June 21)
- [46] Yilmaz and G. Barsai. 2009. Object Recognition Using Angles in the Projective Plane. In: American Society for Photogrammetry and Remote Sensing Annual Conference. Baltimore, MD, USA. (March): 1-6.
- [47] P. Lai and A. Yilmaz. 2009. A New Approach for Vanishing Line Estimation. In: American Society for Photogrammetry and Remote Sensing Annual Conference. Baltimore, MD, USA. (March): 1-6.
- [48] R. Li, K. Di, B. Wu, S. He, B. Skopljak, M. Tang, A. Yilmaz, M. Banks, C. Oman and K. Bhasin. 2008. LASOIS: Enhancing the Spatial Orientation Capability of Astronauts on the Lunar Surface. In: NASA Lunar Science Conference. San Jose, CA, USA. (July): 1-4.
- [49] K. Park and A. Yilmaz. 2007. A Design of a Web Service for Digital Photogrammetry Workstation Using Service Oriented Architecture. In: International e-Conference on Computer Science. (December)
- [50] A. Yilmaz. 2007. Sensor Fusion in Computer Vision. In: IEEE GRSS/ISPRS Joint Workshop on Remote Sensing and Data Fusion over Urban Areas. Paris, France. (April)

Papers in Preparation/Submitted

- [1] Ronald Xu, Alper Yilmaz, Peng Liu, Changlin Xiao, Zeshu Zhang and Michael Tweedle. March 2017. A Hololens Based Augmented Reality System For Teleguided Surgery, Translational to Clinical (T2C) Regenerative Medicine Wound Care Conference. Columbus OH
- [2] A. Durdu, Aydan M. Erkmén and A. Yilmaz. 2016. Reshaping Human Intention in Human-Robot Interactions by Robot Moves: A Comparative Analysis of HMM and OOM Methods. International Journal of Robotics Research. **Submitted**
- [3] C. Zhang, P. Tang, N. Cooke, V. Buchanan, A. Yilmaz, S.W. Germain, R.L. Boring, S. Akca-Hobbins, A. Gupta. 09/2016. A Review of Human-Centered Automation for Resilient Nuclear Power Plant Outage Control, Journal of Automation in Construction, **Submitted**
- [4] G. Barsai and A. Yilmaz. 2/2017. Registration Of Images To Lidar And Gis Data Without Establishing Explicit Correspondences. ISPRS Journal of Photogrammetry and Remote Sensing. **In preparation**

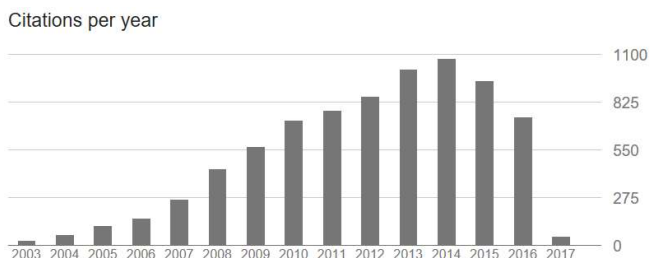
Description of Quality Indicators, such as Citations, Ranking or Impact Factors of Journal or Publisher

Since peer reviewed conference papers do not appear in citation counts, the citations below are extracted from Google Scholar. The citation counts only include journal articles and conference papers.

Number of received citations from others

- Number of citations is compiled from Google Scholar on April, 2016.
- According to Google Scholar my
 - h-index is 22
 - i10-index is 43
 - Erdős number is 4
 - Number of citations is 7,818

Year	Number of Citations
2017	51
2016	736
2015	945
2014	1076
2013	1017
2012	856
2011	774
2010	720
2009	569
2008	417
2007	256
2006	146
2005	103
2004	52
2003	23
2002	11
2001	6
Total	7,818



Research Grants

Dr. Yilmaz has received close to \$8.7M in research funds from Industry, NASA, DOE, NGA, DOT, NSF, AFRL, NSA and Pelotonia.

Year	Funded Proposals	Funding (\$US)
2016	2	2,654,793
2015	2	809,351
2014	3	672,605
2013	2	333,231
2012	1	412,349
2011	6	1,767,809
2010	3	741,966
2009	1	3,805
2008	1	1,200,000
2007	1	111,247
Total	21	8,707,156

University Funded Research

- 7/2014-5/2017 "Wearable Navigation System for Image-guided Cancer Resection Surgery." OSUCCC Intramural Research Program IDEA Award. \$100,000 (**PIs:** Alper Yilmaz, Ronald Xu, Michael Tweedle)
- 3/2017-2/2018 "The UAV Semantic Video Segmentation Challenge 2017" ISPRS Scientific Initiatives 7,000 Swiss Franc (**PIs:** Alper Yilmaz, Michael Yang)
- 5/2009-4/2010 "Development of Methods for Tracking Human Motion Without Markers in Athletic & Clinical Environments." OSU Sports Medicine Center. \$3,805.00. (**PI:** Ajit Chaudhari, **CoI:** Alper Yilmaz)

Industry Funded Research

- 11/2014-6/2017 "Recovering 3D ceiling profile using light coding technology." Intelligent Construction Tools, LLC. \$344,977. (**PI:** Alper Yilmaz)
- 1/2012-6/2015 "Localization and Pose estimation for Tools at Construction Sites." Trimble Inc. \$412,349. (**PI:** Alper Yilmaz)

Government Funded Research

- 10/2016-9/2020 "Smart City Challenge." USDOT. \$2,587,793 (**PI:** Carla Bailo (OSU) **Core Team Member:** Alper Yilmaz and others)
- 4/2016-6/2017 "Generative models with visual attention for target tracking and reacquisition." AFRL. \$67,000. (**PI:** Alper Yilmaz (OSU))
- 10/2015-9/2018 "Automatic Video Analysis for Proactive Computer-Based Workflow Management during Nuclear Power Plant Outages." DOE NEUP Program. \$799,351. (**PIs:** Pingbo Tang (ASU), Alper Yilmaz (OSU), **CoIs:** Nancy Cooke (ASU), James Rogers (ASU))
- 7/2015-6/2016 "REU Supplement: CMMI-1435446: Simulation of Collapse Behavior and Testing of Masonry Buildings." National Science Foundation. \$10,000 (**PI:** Halil Sezen, **CoI:** Alper Yilmaz)
- 7/2014-6/2016 "Analytical and Experimental Collapse Behavior of Masonry Buildings." National Science Foundation. \$227,628 (**PI:** Halil Sezen, **CoIs:** Alper Yilmaz)
- 7/2013-6/2015 "Geolocating videos acquired from mobile platforms." National Geospatial-Intelligence Agency. \$263,031 (**PI:** Alper Yilmaz)
- 6/2011-3/2015 "High-precision long-range rover localization and topographic mapping using networked PanCam images for the ESA ExoMars rover mission." NASA. \$624,705. (**PI:** Alper Yilmaz, **CoI:** Dorota Brzezinska)
- 6/2011-12/2014 "Outreach: Crater seeker for Mars and beyond." NASA. \$80,000. (**PI:** Alper Yilmaz, **CoI:** Dorota Brzezinska)
- 7/2011-6/2014 "Integration of lunar reconnaissance orbiter camera (LROC) and lunar orbiter laser altimeter (LOLA) data for near real-time precision lunar topographic mapping and landing sites assessment." NASA. \$399,633. (**PI:** Alper Yilmaz, **CoI:** Dorota Brzezinska)
- 10/2011-5/2014 "Pathway Aggregation (Clustering) in the Risk Assessment of Proliferation Resistance and Physical Protection (PR&PP) of Nuclear Energy Systems." DOE NEUP Program. \$534,471. (**PI:** Tunc Aldemir, **CoIs:** Alper Yilmaz, M. Yue, L. Cheng, Umit Catalyurek)
- 1/2013-12/2013 "Collaborative research: RAPID: Impact of disturbance from hurricane Sandy on methane emission and carbon sequestration rates in NJ coastal wetlands." National Science Foundation. \$70,200. (**PI:** Gil Bohrer, **CoIs:** Alper Yilmaz, Karina Schafer)
- 10/2011-9/2012 "View Geometric Approach to Tracking Scene Features." NSF/AFRL/Industry Center for Surveillance Consortium. \$44,000.00. (**PI:** Alper Yilmaz, **CoI:** Randolph Moses, Lee Potter)
- 4/2011-9/2012 "Identifying Groups and Their Leaders in in IED Burying Scenario Acquired from a Camera Mounted on a Pole." Air Force Research Laboratory.

	\$85,000.00. <i>Contract number: FA8650-07-D-1220-Task #6. (PI: Alper Yilmaz, CoI: Randolph Moses)</i>
11/2010-9/2012	"Wide Area Multimodal Sensor Exploitation for Detecting Human Threat Signatures." Air Force Research Laboratory. \$43,000.00. <i>Contract number: FA8650-07-D-1220-Task #6. (PI: Alper Yilmaz, CoI: Randolph Moses)</i>
3/2010-9/2011	"Method and tool development to support systematic quantification of uncertainties." Idaho National Labs/Battelle Energy Alliance, LLC. \$369,986.00. <i>Contract Number: Cont 42898 Task Rel 21. (PI: Tunc Aldemir, CoIs: Richard Denning, Carol Smidts, Xiadong Sun, Umit Catalyurek, Alper Yilmaz)</i>
4/2010-7/2011	"Image Georegistration, Camera Calibration and Dismount Categorization In Support of DEBU from Layered Sensing." Air Force Research Laboratory. \$328,980.00. <i>Contract number: FA8650-07-D-1220-Task #5. (PI: Alper Yilmaz, CoIs: Mateen Rizki, Charles Toth)</i>
8/2008-7/2011	"Enhancement of spatial orientation capability of astronauts on the lunar surface." NASA-National Space Biomedical Research Institute. \$1,200,000.00. <i>Contract Number: NCC 9-58-351. (PI: Ron Li, CoI: Alper Yilmaz, Kaichang Di, Martin Banks)</i>
9/2007-1/2009	"Real-time analysis of urban and rural environments for source assessment from a network of video cameras." DOD Counterintelligence Field Activity Behavioral Science Directorate. \$111,247.00. <i>Contract Number: H9C104-07-C-0009. (PI: Alper Yilmaz)</i>

Editorial Activities

Journal Editorial Board

2017	Editor , Proceedings of the ISPRS Hannover Workshop.
2016-present	Editor-In-Chief , ASPRS Photogrammetric Engineering and Remote Sensing Journal.
2017-present	Board Member , International Journal Engineering and Geosciences
2014-present	Associate Editor , Computer Vision and Image Understanding, Elsevier.
2015	Guest editor , ISPRS International Journal of Geo-Information. Special issue on Tracking and Imaging.
2015	Field Editor on Sensor Fusion for GPS-denied Environments, Springer, Encyclopedia of GIS
2006-2011	Associate Editor , Machine Vision and Applications.

Conference Organizing Committee Membership

2016	Chair of Technical Sessions, Chair of Theme Sessions, Chair of Special Sessions XXIII Int. Soc. Photogrammetry & Remote Sensing (ISPRS) Congress
2015	Chair, Int. Soc. Photogrammetry & Remote Sensing (ISPRS) GEOSPATIAL Symposium
2015	Science Committee Member, International Symposium on Computer Vision in Remote Sensing (CVRS)
2015	Science Committee Member, International Summer School on Mobile Mapping Technology (SS-MMT)
2015	Organizer, IEEE/ISPRS Workshop on Multi-Sensor Fusion for Dynamic Scene Understanding (MSF)
2014	Organizer, ISPRS TIC: The Tracking and Imaging Challenge (TIC'14)
2014	Area Chair, ISPRS TC III Symposium on Photogrammetric Computer Vision (ISPRS PCV)
2014	Organizer, IEEE/ISPRS Workshop on Multi-Sensor Fusion for Outdoor Dynamic Scene Understanding (MSF)
2014	Area Chair, IEEE Winter Applications of Computer Vision Conference (WACV)

2013	Organizer, ISPRS Image Sequence Analysis Workshop (ISPRS ISA)
2012	Publicity Chair, IEEE Advanced Video and Signal Based Surveillance (AVSS)
2011	Area Chair, ACM SIGHIT International Health Informatics Symposium (ACM-IHI)
2010	Area Chair, IAPR International Conference on Pattern Recognition (ICPR)
2010	Session Chair, IAPR International Conference on Pattern Recognition (ICPR)
2008	Area Chair, IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)

Conference Technical Program Committee Membership

2015	British Machine Vision Conference
2015	AAAI Conference on Artificial Intelligence
2014	IEEE Workshop on Applications for Aerial Video Exploration
2014	IEEE Int. Symp. on Robot and Human Interactive Communication (RO-MAN)
2014	Canadian Conference on Computer and Robot Vision (CRV)
2012-present	IEEE Int. Conf. on Advanced Video and Signal based Surveillance (AVSS)
2011	IEEE ICCV Workshop on Performance Evaluation on Recognition of Human Actions and Pose Estimation Methods (ICCV/PERHAPS)
2011	IEEE ICCV Workshop on Computer Vision for Remote Sensing of the Environment (ICCV/CVRS)
2010-2011	Int. Conf. on Computer Graphics, Imaging and Visualization (CGIV)
2010	IEEE International Conference on Advanced Video and Signal-Based Surveillance
2008-present	European Conference on Computer Vision (ECCV)
2007-present	IEEE International Conference on Computer Vision (ICCV)
2006-present	IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)
2004-present	IAPR International Conference on Pattern Recognition (ICPR)

Book Reviewer

2011	J. N. Kutz, "Scientific Computing and Data Analysis," Oxford University Press.
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Journal Reviewer

2015	European Journal of Remote Sensing
2015	ASPRS Photogrammetric Engineering & Remote Sensing
2015	Elsevier Advances in Space Research (ASR)
2006-present	IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)
2005-present	Computer Vision and Image Understanding Journal (CVIU)
2005, 2009, 2014	Elsevier Pattern Recognition Journal
2013,2014,2015	IEEE Trans. on Image Processing
2011	Journal of Computing in Civil Eng.
2011	Integrated Computer-Aided Engineering
2006, 2009, 2010	Image and Vision Computing Journal
2007	IEEE Trans. on System, Man and Cybernetics
2006-2007	IEEE Trans. on Multimedia
2006, 2011	IEEE Trans. on Aerospace and Electronic Systems
2006, 2008, 2011	Marine Geodesy Journal
2006	Elsevier Real Time Imaging Journal
2005	Trans. On Mobile Computing

Professional Activities

03/2017	Review Panel Member , National Science Foundation (Environmental Monitoring Panel)
10/2016	Proposal Reviewer , ETH Zurich Research Commission
12/2016	Selection Committee Member , ASPRS 2016-2017 Paper Awards
12/2016	Selection Committee Member , ASPRS Altenhofen Scholarship

04/2016	Advisory Committee Member , Intelligent Transportation Systems University Grand Challenge
04/2014	Proposal Reviewer , NASA Postdoctoral Program (NPP)
04/2014	Proposal Reviewer , ETH Zurich Research Commission
03/2014	Proposal Reviewer , National Science Foundation (Division of Information and Intelligent Systems Smart Health Program)
11/2012	Proposal Reviewer , Portuguese Foundation for Science and Technology (FCT)
07/2012	Review Panel Member , National Science Foundation (Division of Information and Intelligent Systems Smart Health Program)
03/2012	Review Panel Member , National Science Foundation (Robust Intelligence Program)
03/2010	Proposal Reviewer , National Science Foundation (Division of Engineering Education and Centers)
03/2009	Review Panel Member , National Science Foundation (Robust Intelligence Program)
02/2009	Proposal Reviewer , National Science Foundation (Information Integration and Informatics Program)

Student Life Activities

03/2014	Evaluator, OSU University Fulbright Campus Evaluation Committee
03/2013	Evaluator, OSU University Fulbright Campus Evaluation Committee
04/2011	Evaluator, OSU College of Engineering Denman Undergraduate Research Forum

List of Offices Held and Services to Professional Societies

2016-present	Member , IEEE Computer Society Technical Committee on Intelligent Informatics
2016-present	Member , IEEE Computer Society Technical Committee on Multimedia Computing
2010-present	Member , IEEE Computer Society Technical Committee on Pattern Analysis and Machine Intelligence
2016-present	Member , IEEE Computer Society Technical Committee on Social Networking
2016-present	Member , IEEE Computer Society Technical Committee on Wearable and Ubiquitous Computing
2016-present	Chair, Commission II WG II/5 , International Society for Photogrammetry and Remote Sensing (ISPRS)
2014-present	Committee Member, Publications and Publicity Committee , International Association for Pattern Recognition (IAPR)
2012-2016	Co-Chair, Commission III WG III/3 , International Society for Photogrammetry and Remote Sensing (ISPRS)
2010-present	Active Member , American Society for Photogrammetry and Remote Sensing (ASPRS)
2009-2010	Treasurer, Special Group on Health Informatics , Association for Computing Machinery (ACM)
2003-present	Active Member , Association for Computing Machinery (ACM)
2001-present	Active Member , IEEE Computer Society
1999-present	Active Member , Institute of Electrical and Electronics Engineers (IEEE)

Administrative Service

Unit Committees

2017-present	Member, Promotion and Tenure Committee , Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.
2016-present	Chair, Workload committee , Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.
2016-present	Member, Mentoring committee , Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.
2013-present	Member, Executive Committee , Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.

- 2015-2016 **Chair, Faculty search committee**, Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.
- 2014-2015 **Chair, Faculty search committee**, Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.
- 2012-2014 **Member, Scholarship Committee**, Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.
- 2011-2014 **Member, Undergraduate Studies Committee**, Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.
- 2009-2011 **Member, Graduate Studies Committee**, Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.
- 2011 **Member, Ad-hoc Committee on Organization of Geodetic Science and Remote Sensing Courses for Semester Conversion**, Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.
- 2007-2009 **Member, Computer Committee**, Dept. of Civil Environmental and Geodetic Engineering, The Ohio State University.

Program Committees

- 2010-2014 **Member, Graduate Studies Committee**, Geodetic Science Graduate Program, The Ohio State University.
- 2010-2011 **Graduate Interdisciplinary Specialization Semester Conversion Committee**, The Ohio State University.
- 2009 **PPAT, Ad-hoc committee on restructuring of Geodetic Science Graduate Program**, Geodetic Science Graduate Program, The Ohio State University.

College Committees

- 2017- **Procedures Oversight Designee (POD)**, Engineering College, The Ohio State University.

University Committees

- 2014-present **Member, University Research Committee**, The Ohio State University.
- 2013-present **Senator, University Senate**, The Ohio State University.
- 2013-present **Member, Faculty Council**, The Ohio State University.
- 2015-2016 **Member, Council on the Physical Environment (COPE)**, The Ohio State University.
- 2011, 2013 **Faculty Member, Fulbright Campus Evaluation Panel**, The Ohio State University.