

# Mehmet KILIÇARSLAN

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## EDUCATION

- Ph.D. Computer Science, Purdue University, Indianapolis, USA, 2018  
Dissertation: *Motion Paradigm to Detect Pedestrians and Vehicle Collision*  
Advisor: Professor Jiang Yu Zheng
- M.S. Computer Science, Indiana University, Bloomington, 2012
- B.S. Mathematics, Selcuk University, Konya, Turkey, 2008  
Advisor: Professor Kemal Aydin

## WORKING EXPERIENCE

- 2022 – Current Assistant Professor  
Department of Computer Engineering, Eskisehir Technical University, TURKEY
- 2019 – 2022 Dr. Lecturer  
Department of Computer Engineering, Eskisehir Technical University, TURKEY
- 2014 – 2018 Software Developer  
Swanson Lab, School of Optometry, Indiana University, Bloomington  
*Design and implement software for Optical coherence tomography (OCT) and Adaptive optics scanning laser ophthalmoscope (AOSLO) imaging systems to diagnose glaucoma.*

## RESEARCH EXPERIENCES

- 2012–2018 Graduate Student Researcher, Center for Visual Information Sensing and Computing (VISC), Purdue University, Indianapolis

## PROJECTS

- 2014–2016 Researcher  
Technology and Enhancements to Improve Pre-Crash Safety, US Department of Transportation (USDOT) Research and Innovation Technology Administration (RITA)

## RESEARCH INTERESTS

Computer vision, Image and video processing, Intelligent transportation systems

## FELLOWSHIPS, GRANTS, AND AWARDS

- 2010–18 Full Scholarship for Master and PhD studies in USA, Turkish Ministry of Education
- 2016 Travel Grant, International Conference on Pattern Recognition (ICPR)
- 2011 Fellowship, Indiana University, Bloomington (\$1000)
- 2010 Fellowship, Indiana University, Bloomington (\$1000)

## PUBLICATIONS

### Peer-Reviewed International Journal Articles

- 2022 Mehmet Kilicarslan and Jiang Yu Zheng. “DeepStep: Direct detection of pedestrian walking from motion.” *IEEE T-IV*, **Under review**
- Mehmet Kilicarslan and Tansu Temel. “Motion-aware vehicle detection in driving videos.” *Turkish Journal of Electrical Engineering and Computer Sciences Sci*, 30, (2022), 63-78
- 2018 M Kilicarslan and J Y Zheng. Predict Vehicle Collision by TTC From Motion Using a Single Video Camera. *IEEE Transactions on Intelligent Transportation Systems*, pages 1–12, 5 2018

### Peer-Reviewed International Conferences

- 2019 Guo Cheng, Jiang Yu Zheng, and Mehmet Kilicarslan. Semantic segmentation of road profiles for efficient sensing in autonomous driving. In *2019 IEEE Intelligent Vehicles Symposium (IV)*, pages 564–569, 2019
- 2017 Mehmet Kilicarslan and Jiang Yu Zheng. Direct vehicle collision detection from motion in driving video. In *Intelligent Vehicles Symposium (IV), 2017 IEEE*, pages 1558–1564. IEEE, 2017
- 2016 M. Kilicarslan and J. Y. Zheng. Bridge motion to collision alarming using driving video. In *2016 23rd International Conference on Pattern Recognition (ICPR)*, pages 1870–1875, Dec 2016
- M. Kilicarslan, J. Y. Zheng, and K. Raptis. Pedestrian detection from motion. In *2016 23rd International Conference on Pattern Recognition (ICPR)*, pages 1857–1863, Dec 2016
- Z. Wang, J. Y. Zheng, and M. Kilicarslan. Visualizing road appearance properties in driving video. In *2016 Nicograph International (NicoInt)*, pages 25–28, July 2016

- 2015 M. Kilicarslan, J. Y. Zheng, and A. Algarni. Pedestrian detection from non-smooth motion. In *2015 IEEE Intelligent Vehicles Symposium (IV)*, pages 487–492, June 2015
- 2014 M. Kilicarslan and J. Y. Zheng. Visualizing driving video in temporal profile. In *2014 IEEE Intelligent Vehicles Symposium Proceedings*, pages 1263–1269, June 2014
- M. Kilicarslan and J. Y. Zheng. Detecting walking pedestrians from leg motion in driving video. In *17th International IEEE Conference on Intelligent Transportation Systems (ITSC)*, pages 2924–2929, Oct 2014
- 2012 M. Kilicarslan and J. Y. Zheng. Towards collision alarming based on visual motion. In *2012 15th International IEEE Conference on Intelligent Transportation Systems*, pages 654–659, Sept 2012
- M. Kilicarslan and J. Y. Zheng. Modeling potential dangers in car video for collision alarming. In *2012 IEEE International Conference on Vehicular Electronics and Safety (ICVES 2012)*, pages 195–200, July 2012

## INVITED TALKS

- 2015 “Pedestrian Detection from Leg Motion in Driving Video.” Crash Imminent Safety (CrIS) University Transportation Center( UTC) Annual Meeting, Ohio State University. Columbus, Ohio, USA. Sep 24.

## PROGRAMMING EXPERTISE

Python, Matlab, Tensorflow, Keras, PyTorch, OpenCV

## SERVICE

Reviewer, *IEEE Transactions on Intelligent Transportation Systems*

Reviewer, *IEEE Transactions on Intelligent Vehicles*

Reviewer, *Intelligent Transportation Systems Conferences*

Updated January 2022