

AutonomousGIS 2017 Workshop Report

The First ACM SIGSPATIAL International Workshop on High-Precision Maps and Intelligent Applications for Autonomous Vehicles (AutonomousGIS 2017)

Redondo Beach, CA, USA - November 7, 2016

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Autonomous vehicles (aka self-driving cars) and their equipped intelligent systems are among the most exciting and innovative technologies in transportation. In order to operate safely, autonomous vehicles require high-precision geospatial datasets and maps, which contain significantly more detailed road information (such as lanes and signs) and the true ground (absolute accuracy) than those found in conventional geospatial resources for driving and navigation. With the integration with artificial intelligence, machine learning, data mining, image processing and other technologies, novel intelligent applications are fast growing. This workshop aims to bring both academic researchers and geospatial industry engineers together to present, discuss, and share the state-of-the-art scientific research and technology advancement on related fields for autonomous vehicles. The workshop participants will also have an opportunity to share their latest research works and brainstorm their visions of high-precision maps and development on future intelligent applications for autonomous vehicles.

AutonomousGIS 2017 (<http://stko-testing.geog.ucsb.edu/song/autonomousgis/>) was held in conjunction with the 25th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems on Nov. 7, 2017 in Redondo Beach, California, USA. This workshop accepted 4 papers in total including two full-papers and two short-papers. Each accepted full paper was allocated 20 minutes for a presentation, while accepted short papers were assigned 15 minutes. The full paper entitled “Lane Boundary Extraction from Satellite Imagery” by Andi Zang (Northwestern University), Runsheng Xu (Northwestern University), Zichen Li (New York University), and David Doria (HERE North America) won the Best Paper Award. In addition, Dr. Christine McGavran from Google Inc. who is a Engineering Lead for Geo-Automotive team gave a keynote titled “Delivering Useful Maps at Scale to Cars”, The workshop attracted in average 20 participants, with a maximum of about 40 participants during keynote in the room.

We sincerely thank the keynote speaker for her insightful keynote talk, and the authors for submitting and presenting high-quality papers in the AutonomousGIS 2017. We also would like to thank the workshop organizing chairs and the program committee members for their time and efforts in reviewing and evaluating the submitted papers. We hope that the proceedings of AutonomousGIS 2017 (<https://dl.acm.org/citation.cfm?id=3149092>) will inspire new research ideas about high-definition maps and intelligent applications for future autonomous vehicles.