

FOR IMMEDIATE RELEASE

Hitachi Automotive Systems develops vehicle localization estimation technology that increases the stability of autonomous driving through the integration of GPS positional information, camera image information, and the industry's first function addressing loss of sight of lane

Tokyo, September 21, 2016 --- Hitachi Automotive Systems, Ltd. today announced that it has developed vehicle localization estimation technology that increases the stability of autonomous driving by integrating the industry's first lane marking fusion function of camera image information processing, which addresses loss of sight of lane, with GPS position information and forward and peripheral images obtained from stereo cameras and SurroundEye^{®*} monitoring cameras.

A vehicle that is being driven autonomously needs to constantly detect its position, and since positional detection needs to be stable as well as highly accurate, Hitachi Automotive Systems is accelerating the development of an advanced vehicle position detection system that meets such requirements. With respect to highly accurate detection, Hitachi Automotive Systems is improving accuracy by matching, within the autonomous driving ECU (Electronic Control Unit), GPS-based position information with image information obtained from forward and peripheral monitoring cameras.

The problem is when there is a loss of sight of lanes during processing of the camera image information, due to bad weather conditions, tight curves, and so forth. The newly-developed lane marking fusion function constantly accumulates the forward and peripheral camera image information, and each time such a loss of lane sight occurs in the course of the image information processing, the function uses the immediately preceding detected information to perform a stable estimation of the vehicle's position. Thus, even when there is a loss of lane sight, the system is able to support the stable driving operation of the autonomous vehicle.

In an industry in which there is intense competition to achieve the practical implementation of an advanced vehicle position detection system that combines GPS position information and image information, Hitachi Automotive Systems aims to move ahead of competitors by using this development of a lane marking fusion function to achieve the early practical application of such a system.

The technologies that underpin such advanced vehicle position detection systems have been validated at Hitachi Automotive Systems' Sawa Works, confirming their functions as solutions for autonomous driving systems. In addition, the company will be making a presentation at FISITA 2016, which starts in Busan, Republic of Korea, on September 26.

Hitachi Automotive Systems will continue to accelerate the development of solutions to contribute to the early commercialization of next-generation vehicles such as autonomous driving vehicles and connected cars.

* SurroundEye[®] is a registered trademark of Clarion Co., Ltd.

About Hitachi Automotive Systems, Ltd.

Hitachi Automotive Systems, Ltd. is a wholly owned subsidiary of Hitachi, Ltd., headquartered in Tokyo, Japan. The company is engaged in the development, manufacture, sales and services of automotive components, transportation related components, industrial machines and systems, and offers a wide range of automotive systems including engine management systems, electric power train systems, drive control systems and car information systems. For more information, please visit the company's website at <http://www.hitachi-automotive.co.jp/en/>.

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.
