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Kudan Inc.

Kudan-participating EU autonomous driving project ERASMO successfully showcased its cutting-edge technology and moved towards commercialization

Kudan is pleased to announce that ERASMO, a pioneering European autonomous driving consortium, has successfully completed a technology demonstration of a state-of-the-art on-board positioning unit (OBU) that will enable fully automated driving.

ERASMO, an autonomous driving project promoted by the European Union Space Programmes Agency (EUSPA), is an industry-academic consortium bringing together Europe's major players and technology companies like Kudan, Renault Group, Idneo, GMV and Septentrio. It has been researching and developing an On-Board Positioning Unit (OBU) that will enable fully-fledged autonomous driving by combining satellite positioning systems (GPS and GNSS) and state-of-the-art Artificial Perception technology.

Vehicle location information is crucial for the latest autonomous driving systems, which need to know not only which road a vehicle is travelling on, but also which lane it is in and even the position of the vehicle within the lane. On the other hand, satellite positioning systems used in the automotive industry are subject to errors of several metres, while shielding and reflections from weather, terrain and buildings reduce their accuracy, and conditions such as tunnels and underground car parks present significant difficulties.

To address this fundamental technical challenge, ERASMO's Onboard Positioning Unit (OBU), with its unique algorithms, integrated multiple sensors and multi-frequency satellite positioning systems to provide a reliable hybrid solution that maintains 10 cm positioning accuracy regardless of the external environment affecting the satellite positioning system. By integrating state-of-the-art localization and safety systems, this on-board positioning unit enables highly accurate and safe autonomous navigation for fully autonomous driving.

In a demonstration held at France's University of Technology of Compiègne's Centre for Innovation, the performance of ERASMO's Onboard Positioning Unit (OBU) in various autonomous driving scenarios, including urban centres, peri-urban areas, rural environments and roads for autonomous driving, was demonstrated to showcase the high accuracy and reliability of the vehicle position.
(For more information on the technology demonstration, see ERASMO link)

Although no company has yet succeeded in commercializing fully autonomous driving, reports of notable achievements are increasing in frequency. Level 4 and Level 5 autonomous driving is expected to grow at 30% annually, highlighting the importance of solutions such as the

ERASMO Onboard Positioning Unit (OBU), which can be realized with Kudan's proprietary technology, and this success is expected to accelerate its commercialization.

About Kudan Inc.
Kudan is a deep tech research and development company specializing in algorithms for artificial perception (AP). As a complement to artificial intelligence (AI), AP functions allow machines to develop autonomy. Currently, Kudan is licensing its technology for next-generation solution areas such as digital twin, robotics and autonomous driving.
For more information, please refer to Kudan's website at https://www.kudan.io/.

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