Vaisala road weather services for automotive ADAS & AD

Precision road weather forecasting for advanced driving technology

The development and integration of new generations of Advanced Driver Assistance Systems (ADAS) and Automated Driving (AD) systems depend on the technology's ability to safely operate in environments where the conditions constantly change. Vaisala's road weather services, part of our Xweather family of subscription based products, provide highly accurate data about all types of road weather and surface conditions that compromise the safety of ADAS and AD systems if not considered.

When it comes to advanced and automated driving technology, safety is always the top priority. Vaisala's road weather solutions provide vehicle systems with the information needed to see beyond on-board sensor ranges, increasing both safety and comfort. Highly accurate and reliable data about constantly changing road conditions increases the availability of AD and ADAS functionality for the end user and plays an essential role in the further development and fine-tuning of assisted and automated driving systems for OEMs and technology suppliers.

Key benefits

Highly accurate road weather data

Vaisala's extensive weather measurement and road weather expertise and commitment to exceptional quality result in highly-accurate data about constantly changing weather conditions, enabling safer, more reliable, and more responsive ADAS and AD systems.

Increased driver and passenger safety

Predictive and pre-emptive road weather services can make the journey both safer and more comfortable by eliminating the need for unexpected braking or other sudden changes related to unforeseen road weather conditions.

Reliable data to drive R&D projects

Highly accurate road weather related datasets provide essential information to support further research and development of new AD/ADAS projects by both OEMs and technology suppliers targeting safe and fully autonomous systems.

Road weather services for automotive at a glance

Applications

- Support of optimal route determination and travel planning by providing near-future road weather and driving conditions.

- Advancing AD/ADAS research and development efforts with environmental datasets and improving AD/ADAS reliability for safe operations in all conditions.

- Assisting human drivers in foreseeing and avoiding challenging road weather conditions in the event that AD/ADAS systems are disabled.

Key features

Comprised of accurate road weather data that covers broad geographic areas for superior reliability and enhanced safety.

Incorporates surface state current conditions with forecasts, friction estimates, and water and ice film thicknesses for highly accurate road weather condition data.

Built on a very strong automotive foundation, and features Bosch as a lead co-development partner.

Flexible and easy start up, and compatible with other road weather services and hardware sensors in Vaisala's portfolio.

Why Vaisala?

Vaisala's weather and environmental technologies enable unrivaled road network awareness — keeping roadways safe and efficient in any season.

As the gold standard for precision and reliability, Vaisala's holistic approach provides customers with end-to-end simplicity, valuable partnership, and a comprehensive portfolio of solutions that are constantly evolving. Our 85+ years of innovation are reflected in our guiding principles for roads:

1. **Move ahead**
   Only Vaisala provides data of unrivaled depth and breadth while synthesizing it into objective decision support — so everyone can keep moving toward better, more insightful ways of operating.

2. **Mobility and beyond**
   We deliver the right insights to the right people at the right time, enabling a wide range of stakeholders to act with confidence and achieve a comprehensive understanding of their road networks and the vehicles on them — creating better, safer outcomes for all.

3. **The innovators**
   As a recognized industry expert, we continuously apply our knowledge and experience to create next-generation solutions that advance the industry; enabling stakeholders to innovate and optimize road networks like never before.

4. **See, understand, decide**
   Vaisala gives users rich data intelligence that improves real-time decision-making as well as observation enhanced forecasting to enable strategic planning. With a better, fuller understanding of their road network, users can do their jobs more decisively and effectively than ever.

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