AutoDrive

Advancing fail-aware, fail-safe, and fail-operational electronic components and systems for automated driving

Programm / Ausschreibung	IKT der Zukunft, ECSEL, ECSEL 3. Ausschreibung 2016	**Status**	abgeschlossen
Projektstart	01.05.2017	**Projektende**	31.10.2020
Zeitraum	2017 - 2020	**Projektlaufzeit**	42 Monate
Keywords	1_Mobility		

Projektbeschreibung

Durchsetzen von Fail-aware, Fail-safe und Fail-operational E/E Komponenten, Systeme und Architekturen für hoch- und vollautomatisiertes Fahren, die die Zukunftsmobilität sicherer, effizienter, leistbarer und für den Endverbraucher akzeptabel machen

Abstract

Although the idea of highly and fully automated driving may still appear futuristic, most of the core technologies required are available today. The European industry has a sound basis to build upon. However, the complexity that automated systems bring to the car industry is enormous. Currently, even the most sophisticated vehicle automation technology on the road is not able to surpass human driving capabilities – especially considering context awareness in any situation and at any weather condition. Moreover, there is no common agreement on quantifiable dependability measures which hardware and embedded software have to achieve on both component and system level to allow safe automated driving for SAE Levels 3-5.

AutoDrive aims for the design of (i) fail-aware (self-diagnostics), (ii) fail-safe, and (iii) fail-operational (HW and SW redundancy) electronic components and systems architecture that enable the introduction of automated driving in all car categories.

AutoDrive results will significantly contribute to safer and more efficient automated driving. It will raise end-user acceptance and comfort by supporting drivers in highly challenging situations (active safety) as well as in regular driving situations (ADAS). Combining both will reduce the number of road fatalities especially in rural scenarios and under adverse weather conditions. Thus, AutoDrive will contribute to Europe’s Vision Zero and improve efficiency by forming the basis for intelligent road traffic management to prevent traffic congestion.

AutoDrive has gathered Europe’s leading semiconductor companies, suppliers, OEMs, and Research Institutes to consider all stakeholders needed to create a pan-European eco-system, which will lead to a significant competitive advantage for the European industry by setting standards and being market pioneers of the next generation electronic components and system architectures. This will sustain and even grow the market position of all AutoDrive partners

Projektpartner

- Virtual Vehicle Research GmbH