

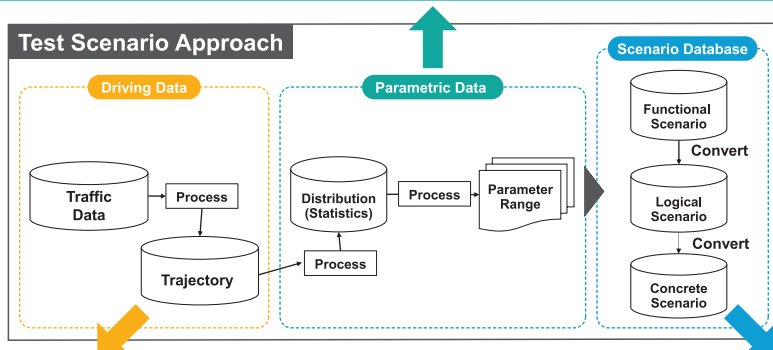
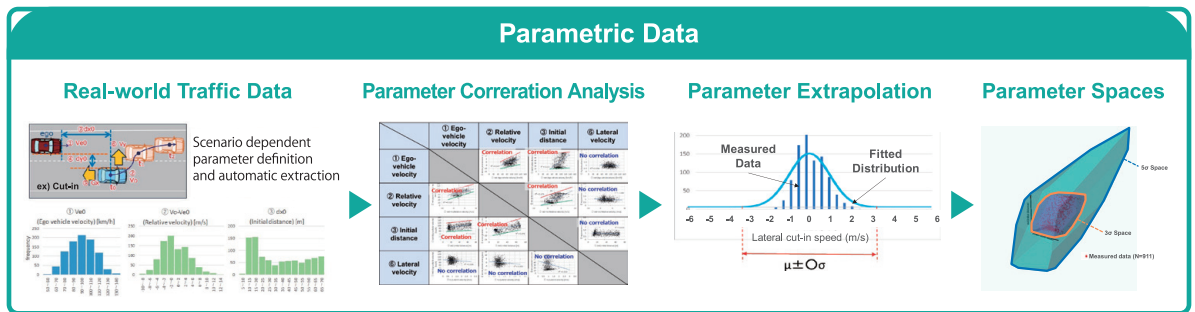


Safety Assurance KUDos for Reliable Autonomous vehicles: SAKURA Project

Summary

- Socially acceptable and technically sound safety assurance methodologies are needed to safely introduce Automated Driving systems into the market.
- The SAKURA Project is a large-scale coordinated initiative funded by the Japanese Ministry of Economy, Trade and Industry (METI) that aims at harmonizing data collection, developing research methodologies and coordinating standardization activities through joint efforts with vehicle manufacturers (JAMA) and traffic safety research institutions.
- Within this project, a comprehensive safety assurance process has been developed and a number of activities are being deployed including real-traffic monitoring data collection, development of traffic scenarios for safety evaluation and definition of safety criteria.
- The safety assurance process will be applied to guide the development of the systems towards a safer Automated Driving society.

Parametric Data



Driving Data

Instrumented Car

Process

Fixed Observation

Process

Ongoing third-party data acquisition with both instrumented vehicles and fixed cameras over motorways

Scenario Database

SAKURA Scenario Database Structure

Scenario Search

- Scenario Structure (Traffic Disturbance)
- Feature Model(UML)
- Basic View <Detailed display>
 - Parameter Space
 - Trace information
 - Others
- Concrete Scenario output (XML format)
- Preventable scenario generation (Update possible)
- Logical Scenario output (Parameter Space)
- Foreseeable Parameter range output (Update possible)