

Case Study

How a tier-1 automotive supplier benefited by deploying inertial sensor software for its vehicle stability control unit



Inertial sensor development for a global automotive supplier

Business Situation

The customer, a tier 1 automotive supplier based in Europe and North America, is among the world leaders in automotive safety, developing and producing the industry's widest variety of active and passive systems. Some of the products of the customer include: chassis and occupant safety systems, and additional products such as body controls, fasteners and engine valves. The project involved development of Inertial Sensor software for the given Vehicle Stability Control unit with features such as providing vital inputs for vehicle stability control applications such as ABS (antilock braking systems), Traction control & Yaw control; Supporting 3 vehicle movements such as Yaw, Roll & Pitch; Internal failsafe for electrical, mechanical failures etc.

Mahindra Satyam's Role

Mahindra Satyam's role involved closely interacting with the customer for requirements and performing tasks such as Architecture design, Software design & development; Verification and validation, CAN driver development, Inertial sensor signal processing, Digital filtering, and Failsafe Matlab/ Simulink models.

Benefits

- Contributed to Next Gen product development
- Replaced three sensors into single integrated sensor with smaller footprint
- Improved reliability due to reduced wiring for connecting to VSC unit
- Enabled efficient communication with VSC unit
- Achieved quick turnaround time due to offshore development