[

[

{

"Requirement":"Req\_SZ\_01",

"RequirementClassification":"SafetyGoal",

"LESS Requirement":"The system should prevent dangerous unintended acceleration"

},

{

"Reference":"test-Req\_SZ\_01",

"Requirement":"Req\_SZ\_01",

"Testobjects":["System", "acceleration"],

"PRE":{},

"POST":{}

}

],

[

{

"Requirement":"Req\_SZ\_03",

"RequirementClassification":"SafetyGoal",

"LESS Requirement":"Any dangerous unintended deceleration shall be prevented by the system"

},

{

"Reference":"test-Req\_SZ\_03",

"Requirement":"Req\_SZ\_03",

"Testobjects":["System", "deceleration"],

"PRE":{},

"POST":{}

}

],

[

{

"Requirement":"Req\_SZ\_04",

"RequirementClassification":"SafetyGoal",

"LESS Requirement":"The system should prevent loss of deceleration that is unintended"

},

{

"Reference":"test-Req\_SZ\_04",

"Requirement":"Req\_SZ\_04",

"Testobjects":["System", "deceleration"],

"PRE":{},

"POST":{}

}

],

[

{

"Requirement":"SReq\_01",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"The drive pedal should check the sensor signals of the drive pedal for plausibility"

},

{

"Reference":"test-SReq\_01",

"Requirement":"SReq\_01",

"Testobjects":["drive\_pedal", "sensor\_signals"],

"PRE":{},

"POST":{"drive\_pedal": {"check": true}, "sensor\_signals": {"plausibility": true}}

}

],

[

{

"Requirement":"SReq\_01",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"The drive pedal must check its internal sensor signals for plausibility"

},

{

"Reference":"test-SReq\_01b",

"Requirement":"SReq\_01",

"Testobjects":["drive\_pedal", "sensor\_signals"],

"PRE":{},

"POST":{"drive\_pedal": {"check": true}, "sensor\_signals": {"plausibility": true}}

}

],

[

{

"Requirement":"SReq\_02",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"The throttle valve shall check the sensor signals of the throttle valve for plausibility"

},

{

"Reference":"test-SReq\_02",

"Requirement":"SReq\_02",

"Testobjects":["throttle\_valve", "sensor\_signals"],

"PRE":{},

"POST":{"throttle\_valve": {"check": true}, "sensor\_signals": {"plausibility": true}}

}

],

[

{

"Requirement":"SReq\_04",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"using appropriate plausibility checks the engine control unit must detect errors in the actuator"

},

{

"Reference":"test-SReq\_04",

"Requirement":"SReq\_04",

"Testobjects":["engine\_control\_unit", "actuator", "plausibility\_checks"],

"PRE":{},

"POST":{}

}

],

[

{

"Requirement":"SReq\_05",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"The engine control unit must check internal actuator signals for plausibility"

},

{

"Reference":"test-SReq\_05",

"Requirement":"SReq\_05",

"Testobjects":["engine\_control\_unit", "actuator\_signals"],

"PRE":{},

"POST":{"engine\_control\_unit": {"check": true}, "actuator\_signals": {"plausibility": true}}

}

],

[

{

"Requirement":"SReq\_05a",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"unintended acceleration shall be detected and confirmed by the engine control unit"

},

{

"Reference":"test-SReq\_05a",

"Requirement":"SReq\_05a",

"Testobjects":["engine\_control\_unit", "acceleration"],

"PRE":{},

"POST":{}

}

],

[

{

"Requirement":"SReq\_06a",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"The engine control unit should monitor the function controller"

},

{

"Reference":"test-SReq\_06a",

"Requirement":"SReq\_06a",

"Testobjects":["engine\_control\_unit", "function\_controller"],

"PRE":{},

"POST":{}

}

],

[

{

"Requirement":"SReq\_06a2",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"Integrity of the lamp switch on request should be protected against spoofing by the system"

},

{

"Reference":"test-SReq\_06a2",

"Requirement":"SReq\_06a2",

"Testobjects":["system", "lamp\_switch"],

"PRE":{},

"POST":{"system": {"protect": true}, "lamp\_switch": {"integrity": true}}

}

],

[

{

"Requirement":"SReq\_06b",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"The navigation ECU must detect control signals that are malicious"

},

{

"Reference":"test-SReq\_06b",

"Requirement":"SReq\_06b",

"Testobjects":["navigation\_ECU", "control\_signals"],

"PRE":{},

"POST":{}

}

],

[

{

"Requirement":"SReq\_06b2",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"The navigation ECU should avoid malicious control signals from being transmitted"

},

{

"Reference":"test-SReq\_06b2",

"Requirement":"SReq\_06b2",

"Testobjects":["navigation\_ECU", "control\_signals"],

"PRE":{},

"POST":{"navigation\_ECU": {"avoid": true}, "control\_signals": {"transmitted": false}}

}

],

[

{

"Requirement":"SReq\_07",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"Control signals that are malicious must be detected by the gateway"

},

{

"Reference":"test-SReq\_07",

"Requirement":"SReq\_07",

"Testobjects":["gateway", "control\_signals"],

"PRE":{},

"POST":{}

}

],

[

{

"Requirement":"Req\_SEC\_ISO10",

"RequirementClassification":"SecurityGoal",

"LESS Requirement":"The gateway shall drop any detected malicious control signals"

},

{

"Reference":"test-Req\_SEC\_ISO10",

"Requirement":"Req\_SEC\_ISO10",

"Testobjects":["gateway", "control\_signals"],

"PRE":{},

"POST":{}

}

]

]