Hazard ID	Situational Ana			
	Operational Mode	Operational Scenario	Environmental Details	Situation Details
HA-001	OM03 - Normal Driving	OS04 - Highway	EN06 - Rain (slippery	SD02 - High speed
HA-002	OM03 - Normal Driving	OS03 - Country Road	EN01 - Normal conditions	SD02 - High speed
HA-003	OM03 - Normal Driving	OS05 - Mountain Pass	EN07 - Snow (Slippery	SD01 - Low Speed
HA-004	OM04 - Backward Driving	OS01 - Any Road	EN03 - Fog	SD01 - Low Speed

alysis

Other Details (optional)	Item Usage (function)	Situation Description	Function
	IU01 - Correctly used	Normal driving on a highway during rain (slippery road) with high speed and correctly used system.	Lane Departure Warning (LDW) function shall apply an oscillating steering torque to provide the driver with haptic feedback
	IU02 - Incorrectly used	Normal driving on a country road during normal conditions with high speed and incorrectly used systam.	Lane Keeping Assistance (LKA) function shall apply the steering torque when active in order to stay in ego lane
	IU01 - Correctly used	Normal driving on a mountain terrain amidst snowfall	Lane Departure Warning (LDW) function shall apply an oscillating steering torque to provide the driver with haptic feedback
	IU01 - Correctly used	Reverse drive in foggy condition	Lane Departure Warning (LDW) function shall apply an oscillating steering torque to provide the driver with haptic feedback

Hazard Identification			
Deviation	**Deviation Details**	**Hazardous Event (resulting effect)**	**Event Details**
DV04 - Actor effect is too much	A higher torque than the max is applied by the lane departure function	EV00 - Collision.	The higher torque might restrict driver's ability to control. The driver loose control and cause collision.
DV03 - Function is always activated	Lane Keeping function is always activated	EV00 - Collision with other vehicle.	Driver may misuse the function as if the car was a self-driving car and not pay attention to driving.
DV01 - Function not activated	Warning not activated mayb	EV23 - Car comes off the road.	Function does not activate even when car is off the lane.
DV15 - Sensor detection too late	Camera feedback is delayed while trying to reverse	EV00 and EV02 - Collision with other vehicle/Pedestrian	The lane assistance gives delayed feedback while reverse

	Hazar		
Hazardous Event Description	**Exposure (of situation)**	**Rationale (for exposure)**	**Severity (of potential harm)**
The Lane Departure Warning function applies an oscillating torgue with very high torque (above limit)	E3 - Medium probability	Driving on a highway with rain could happen between 1% and 15% of the time operating the vehicle.	S3 - Life-threatening or fatal injuries
The function is being misused.	E2 - Low probability	Humans tend to misuse a function systems either due to lack of knowledge or on whim.	S3 - Life-threatening or fatal injuries
The driver might not be alerted that he is off the lane and not take corrective measure, hence causing the car to fall off the road.	E3 - Medium probability	Drivers may tend to rely too much on lane assistance system.	S3 - Fatal
The driver may not be aware of the camera delay while reverse and crash	E3 - Medium probability	Drivers may rely too much on lane assist	S3 - Life-threatening or fatal injuries

dous Event Classification

Rationale (for severity)	Controllability (of hazardous event)	Rationale (for controllability)
Collisions at high speed could cause fatal injuries.	C3 - Difficult to control or uncontrollable	It is difficult to manoeuvre a malfunctioning system
Accidents could lead to loss of life .	C3 - Difficult to control or uncontrollable	It is not easy to respond effectively and prevent accident at the last moment.
Can lead to death	C2 - Normally controllable	A driver can use his senses to make sure the car is in the safe lane even when the lane assistance doesn't activates
Accidents could lead to loss of life .	C3 - Difficult to control or uncontrollable	If a driver isn't aware of this delay then unless there's a passenger at back the driver might not be alerted

Determination of ASIL and Safety Goals	
ASIL Determination	**Safety Goal**
C	The oscillating steering torque from the Lane Departure Warning function shall be capped.
B	The Lane Keeping Assistance function shall be time limited, and additional steering torque shall end after a given time interval so the driver cannot misuse the system for autonomous driving.
B	Customised warning for snowy conditions.
C	Warning system onboard for malfunctioning camera