INSTRUCTIONS:
Fill out the hazard analysis and risk assessment below.
HA-001 should be for the lane departure warning function as discussed in
HA-002 should be for the lane keeping assistance function as discussed ir
Then come up with your own situations and hazards for the lane assistanc
When finished, export your spreadsheet as a pdf file so that a reviewer car

Hazard ID			
	Operational Mode	**Operational Scenario**	**Environmental Details**
HA-001	OM03 Normal Driving	OS04 Highway	EN06 Rain(slippery roac
HA-002	OM03 Normal Driving	OS04 Highway	EN01 Normal
HA-003	OM03 Normal Driving	OS02 City Road	EN07 Snow(slippery road)
HA-004	OM03 Normal Driving	OS04 Highway	EN04Snowfall(degrade

the lecture.
ı the lecture.
:e system. Fill in the HA-003 and HA-004 rows.
ı easily see your work.

Situational Analysis

Situation Details	Other Details (optional)	Item Usage (function)
SD02 High speed	N/A	IU01 Correctly used
SD02 High speed	N/A	IU02 Incorrectly used
SD01 Low speed	N/A	IU01 Correctly used
SD02 High speed	N/A	IU01 Correctly used

Situation Description	Function	Deviation
Normal driving on highway during	Lane Departure Warning	DV04 Actor
Normal driving on country roads during	Lane Keeping	DV03 Function
Normal driving on city road during snow(slippery road) with low speed and	Lane Departure Warning (LDW) function shall	DV04 Actor
Normal driving on highway during	Camera function shall	DV19

Hazard Identification		
Deviation Details	**Hazardous Event (resulting effect)**	**Event Details**
The Lane Departure Warning	Collision with other	High haptic feedback can affect
Lane Keeping Assistance	Collision with other	If Lane keeping assistance function
The Lane Departure Warning	Collision with other	High haptic feedback can affect
Camera function captures	Collision with other	Falsely detected lane lines by

Hazardous Event Description	Exposure (of situation)	Rationale (for exposure)
Oscillating torque to the	E3	Normal driving on highway during
Lane Keeping Assistance is	E2	The condition of normal driving on
Oscillating torque to the	E2	The condition of normal driving on city road at snowy road condition
Camera function falsely detects	E2	The condition of normal driving on

Hazardous Event Classification		
Severity (of potential harm)	**Rationale (for severity)**	**Controllability (of hazardous event)**
S3	In highway, the speed	C3
S3	In highway, the speed	C3
S1	In city road, the speed of the vehicle is	C3
S3	In highway, the speed	C2

	Determi
Rationale (for controllability)	**ASIL Determination**
Oscillating steering wheel too much at high speed is	ASIL C
Driver hands are off from the steering wheel at high	ASIL B
Oscillating steering wheel too much in snow(slippery condition) is difficult to control	QM
Unintended use of Lane Departure Warning and	ASIL A

nation of ASIL and Safety Goals

Safety Goal
The oscillating steering torque from the
The lane keeping assistance torque is
The oscillating steering torque from the
The use of camera in degraded view