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

Hazard ID	Situational Ana			
	Operational Mode	Operational Scenario	Environmental Details	Situation Details
HA-001	OM03 - Normal Driving	OS04 - Highway	EN06 - Rain (slippery r	SD02 - High speed
HA-002	OM03 - Normal Driving	OS03 - Country Road	EN01 - Normal	SD02 - High speed
HA-003	OM03 - Normal Driving	OS04 - Highway	Fog(Degraded View)	SD02 - High speed
HA-004	OM03 - Normal Driving	OS03 - Country Road	Cross-wind(Lateral	SD02 - High speed

the HA-003 and HA-004 rows.
work.

alysis

Other Details (optional)	Item Usage (function)	Situation Description	Function
	IU01 - Correctly	Normal driving on a highway during rain	Lane Departure
	IU02 - Incorrectly	Normal driving on a country road during	Lane Keeping
	IU01 - Correctly	Normal Driving on a highway in foggy	Lane Departure
	IU01 - Correctly	Normal Driving on a highway during	Lane Keeping

		Hazard Identification
Deviation	**Deviation Details**	**Hazardous Event (resulting effect)**
Steering Wheel Vibrates too	LDW function applies	Collision with other
Lane Keeping function is	Lane Keeping function is	Collision with other
Function unexpectedly	Due to reduced visibility,	Car Comes off road
Actor effect is too less	If the direction of strong	Collision with other

Event Details	Hazardous Event Description	Exposure (of situation)
High haptic feedback can affect	The Lane Departure Warning	E3 - Medium
The driver believes that the lane	The driver do not use the	E2 - Low
Since the visibility is low, the car	Lane departure warning	E3 - Medium
If the amount of torque applied is	Amount of torque applied is	E3 - Medium

Hazardous Event Classifi		
Rationale (for exposure)	**Severity (of potential harm)**	**Rationale (for severity)**
According to functional safety	S3 - Life-threatening or	Driving at high speed
The driver is on a country road	S3 - Life-threatening or	Driving at high speed
Highway Driving on foggy roads	S3 - Life-threatening or	Driving at high speed
Highway Driving on windy roads	S3 - Life-threatening or	Driving at high speed

cation		Determin
Controllability (of hazardous event)	**Rationale (for controllability)**	**ASIL Determination**
C3 - Difficult to control or	Difficult to control in case the haptic feedback is	ASIL C
C3 - Difficult to control or	A lane keeping assistance when always ON is to	ASIL B
C3 - Difficult to control or	A wrong steering action made by the driver at	ASIL C
C2 - Normally controllable	Driver can control the vehicle and steer it into the	ASIL B

ıation of ASIL and Safety Goals
Safety Goal
The oscillating torque from the LDW
The Lane Keeping Assistance function
The lane departure warning function
The lane keeping assistance function