

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 the HA-003 and HA-004 rows.
When finished, export your spreadsheet as a pdf file so that a reviewer can easily see your work.

Hazard ID	Situational Analysis										Hazard Identification				Hazardous Event Classification						Determination of ASIL and Safety Goals	
	Operational Mode	Operational Scenario	Environmental Details	Situation Details	Other Details (optional)	Item Usage (function)	Situation Description	Function	Deviation	Deviation Details	Hazardous Event (potential effect)	Event Details	Hazardous Event Description	Exposure (of situation)	Rationale (for exposure)	Severity (of potential harm)	Rationale (for severity)	Controllability (of hazardous event)	Rationale (for controllability)	ASIL Determination	Safety Goal	
HA-001	OM03 - Normal Driving	OS04 - Highway	EN05 - Rain (slippery road)	SD02 - High speed		I,U01 - Correctly used	Normal driving on a highway during rain	Lane Departure	DV04 - Actor effect is too much	The Lane Departure	EV00 - Collision with	High haptic feedback can affect	The Lane Departure Warning	E1 - Medium	Driving on a highway with rain	S3 - Life-threatening or	Collisions at high	C3 - Difficult to control	It is difficult to react properly when the steering	C	The oscillating steering torque from the	
HA-002	OM03 - Normal Driving	OS03 - Country Road	EN01 - Normal conditions	SD02 - High speed		I,U02 - Incorrectly used	Normal driving on a country road during	Lane Keeping	DV03 - Function is always	Lane Keeping function is	EV00 - Collision with	Driver use the function as if the	The driver do not use the	E2 - Low	The covariation between driving at	S3 - Life-threatening or	Collisions at high	C3 - Difficult to control	When the driver loose focus on driving, it is	B	The Lane Keeping Assistance function	
HA-003	OM03 - Normal Driving	OS04 - Highway	EN02 - Sun flares	SD02 - High speed		I,U01 - Correctly used	Normal driving on a highway during sun	Lane Departure	DV19 - Sensor detection is	The Lane Departure	EV00 - Collision with	Driver who over-relies the	Driver fail to react the	E2 - Low	The condition driving towards the	S3 - Life-threatening or	Collisions at high	C2 - Normally	If the driver doesn't over-rely on the system, driver	A	If the camera cannot detect lane lines	
HA-004	OM03 - Normal Driving	OS04 - Highway	EN04 - Snowfall (operated)	SD02 - High speed		I,U01 - Correctly used	Normal driving on a highway during or	Lane Keeping	DV19 - Sensor detection is	Lane Keeping function	EV00 - Collision with	Torque applied is wrong way,	The Lane Keeping Assistance	E2 - Low	The condition of having such a	S3 - Life-threatening or	Collisions at high	C3 - Difficult to control	If the system tries to apply wrong torque on the	B	If the camera cannot detect lane lines	