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	SD02 - High speed
HA-002	OM03 - Normal driving	OS03 - Country Road	EN01 - Normal conditi	SD02 - High speed
HA-003	OM04 - Backward driving	OS01 - Any Road	EN01 - Normal conditi	SD01 - Low speed
HA-004	OM06 - Towing (active)	OS03 - Country Road	EN06 - Rain (slippery	SD02 - High speed

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

alysis

Other Details (optional)	Item Usage (function)	Situation Description	Function
	IU01 - Correctly use	Normal driving on wet highway	Lane Departure
	IU02 - Incorrectly us	Driver is misusing lane keeping assitance	Lane Keeping
	IU01 - Correctly use	Backing up on any road	Lane Departure
	IU01 - Correctly use	Towing vehicle on country road in rain	Lane Keeping

		Hazard Identification
Deviation	**Deviation Details**	**Hazardous Event (resulting effect)**
DV04 - Actor effect is too m	Departure warning too	EV00 - Collision with other vehicle
DV11 - Actor effect is wrong	Actor using system as	EV00 - Collision with other vehicle
DV10 - Actor effect is revers	Departure warning while	EV-01 - Side collision with obstacle
DV11 - Actor effect is wrong	Actor using system as	EV00 - Collision with other vehicle

Event Details	Hazardous Event Description	Exposure (of situation)
Vehicle crashes into other vehicle with injury to driver	Vibration too severe at	E3 - Medium prob
Vehicle crashes into other vehicle	Steer correction is	E2 - Low probabil
Vehicle crashes into obstacle with	Vibration during complex	E4 - High probabi
Vehicle crashes into other vehicle	Steer correction is	E2 - Low probabil

Hazardous Event Classification			
Rationale (for exposure)	**Severity (of potential harm)**	**Rationale (for severity)**	**Controllability (of hazardous event)**
Driving on highway in wet roads	S3 - Life-threatening or fa	High speed collision	C3 - Difficult to control or
Driving on country road and	S3 - Life-threatening or fa	High speed collision	C3 - Difficult to control or
Driving in reverse very common	S1 - Light and moderate i	Low speed collision	C1 - Simply controllable
Towing in rain uncommon	S3 - Life-threatening or fa	High speed collision	C3 - Difficult to control or

	Determination of ASIL and Safety Goals	
Rationale (for controllability)	**ASIL Determination**	**Safety Goal**
Hard to control on wet road	C	The oscillating steering torque from the la
Not controllable	B	The lane keeping assistance function sha
Simple to control at low speeds	QM	The oscillating steering torque from the la
Difficult to control due to rain and towing	B	The lane keeping assistance function sha