

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										Hazardous Event Classification										Determination of ASL and Safety Goals	
	Operational Mode	Operational Scenario	Environmental Details	Situation Details	Other Details (optional)	Item Usage (function)	Situation Description	Function	Deviation	Deviation Details	Hazard Identification (resulting effect)	Event Details	Hazardous Event Description	Exposure (of situation)	Rationale (for exposure)	Severity (of potential harm)	Controllability (of hazardous event)	Rationale (for controllability)	ASL Determination	Safety Goal		
HA-001	Normal driving	Any Road	Normal conditions	High speed		Correctly used	Normal driving on Any Road in Normal	Lane Departure	Active effect is	The LDW function applies.	Collision with other	High haptic feedback can offset.	Loss of control	High probability	Normal drive with High speed is a	Life threatening or fatal	Speed is high	Normally controllable	The driver can take control with big effort	C	The modulating steering torque from the	
HA-002	Normal driving	Any Road	Normal conditions	High speed		Incorrectly used	Normal driving on Any Road in Normal	Lane Keeping	Function	The LKA function is always	Collision with other	The driver was misusing the	Loss of control	High probability	Normal drive with High speed is a	Life threatening or fatal	Speed is high	Strongly controllable	The driver can easily take control	B	The lane keeping assistance function	
HA-003	Normal driving	Highway	snow slippery road	High speed		Correctly used	Normal driving on Highway in Snow at	Lane Departure	Function	The LDW Functions is	Collision with other	Unexpected haptic will affect	The camera sensor error will	Low probability	Snow for most region is very low	Life threatening or fatal	Speed is high	Normally controllable	Most of the driver can take control	CAD	The LDW system shall disable LDW	
HA-004	Normal driving	Highway	Sun blares (obscured)	High speed		Correctly used	Normal driving on Highway in Sun blares	Lane Keeping	Function	The LKA function is	Collision with other	The driver will lose control when	The camera sensor error will	Medium	Driving highway with Sun blares will	Life threatening or fatal	Speed is high	Normally controllable	Most of the driver can take control	A	The LKA system shall disable LDW	