

Table I: List of Selected Scenarios for Safety Testing of ADS using $D2_{overlap} - O_{d2_{overlap}}$

Sr. #	Groups	Scenario Name	Identifier	Score	Priority
G8	Cyclist Interaction	Cyclist crossing from left side at signalized junction	S_{46}	16	1
		Cyclist crossing from right side at signalized junction	S_{47}	16	1
		Ego vehicle approaching cyclist riding in same direction	S_{48}	16	1
		Ego vehicle driving alongside a cyclist	S_{49}	16	1
		Cyclist and ego vehicle driving in opposite direction	S_{50}	16	1
		Cyclist turning left and ends up in lane of ego vehicle	S_{56}	16	1
		Cyclist turning right and ends up in lane of ego vehicle	S_{57}	16	1
		Cyclist at left turn at signalized junction	S_{51}	15	2
		Cyclist driving in same direction obstructed at ego left turn	S_{52}	15	2
		Entering a roundabout with a cyclist Interaction	S_{54}	14	3
		Leaving a roundabout with a cyclist	S_{55}	14	3
		Cyclist at right turn at signalized junction	S_{53}	12	4
G5	Crossing Path	Oncoming vehicle turns right at signalized junction	S_{25}	18	5
		Sirens	S_{29}	18	5
		Left Turn Clip	S_{30}	17	6
		Wrong Driveway	S_{31}	17	6
		Run Red Into Left Turner	S_{33}	17	6
		Misjudgment, Left Turn	S_{34}	17	6
		Entering a roundabout with another vehicle	S_{28}	16	7
		Ego vehicle turns right with oncoming vehicle at signalized junction	S_{26}	14	8
		Navigating on an empty roundabout	S_{27}	11	9
		Wave to Go	S_{32}	11	9
G7	Pedestrian Interaction	Jaywalking	S_{36}	17	10
		Pedestrian crossing at zebra crossing	S_{37}	17	10
		Pedestrian running a red light	S_{41}	17	10
		Struck Human	S_{45}	17	10
		Pedestrian at left turn at signalized junction	S_{42}	16	11
		Pedestrian in same direction obstructed at ego left turn	S_{43}	16	11
		Pedestrian stationary at road side	S_{39}	15	12
		Pedestrian walking along the road	S_{40}	15	12
		Zebra crossing	S_{38}	14	13
		Pedestrian at right turn at signalized junction	S_{44}	13	14
G3	Opposite Direction	Oncoming vehicle swerving into ego vehicle's lane	S_{64}	18	15
		Oncoming vehicle	S_{65}	18	15
G3	Following Lead Vehicle	Ego vehicle approaching slower lead vehicle	S_{17}	18	16
		Turning lead vehicle	S_{18}	17	17
		Inattentive, Rear	S_{19}	11	18
		Stutter Stop	S_{20}	11	18
G2	Lane Change	Cut-in in front of the ego vehicle	S_4	18	19
		Cut-out in front of the ego vehicle	S_7	18	19
		Vehicle swerving towards ego vehicle	S_8	18	19
		Vehicle backing up into the ego vehicle	S_9	18	19
		Impassable object on intended path	S_{10}	18	19
		Object road with incoming traffic	S_{12}	18	19
		Driving straight	S_{13}	18	19
		U-Turn	S_{16}	18	19
		Ego performing lane change with the vehicle behind	S_5	15	20
		Ego merging into an occupied lane	S_6	15	20
		Passable object on intended path	S_{11}	15	20
		Avoidance, Rear	S_{14}	15	20
		Lane Change, Rear.	S_{15}	15	20
		Back Into Object	S_{61}	13	21
G10	Reversing	Back into Roadway	S_{62}	13	21
		Back Track	S_{63}	13	21