Korea Transportation Safety Authority
Korea Automobile Testing & Research Institute

EDR/DSSAD IWG

DSSAD
AV Traffic Accident Cases

Korea Automobile Testing & Research Institute(KATRI)

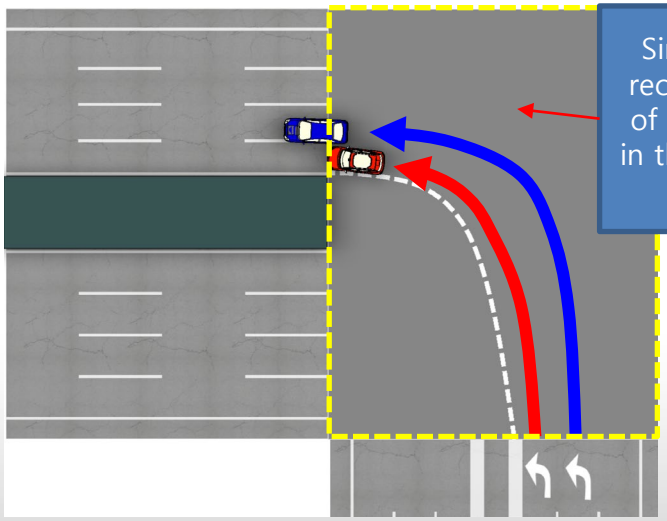
Special Accident Investigation Office

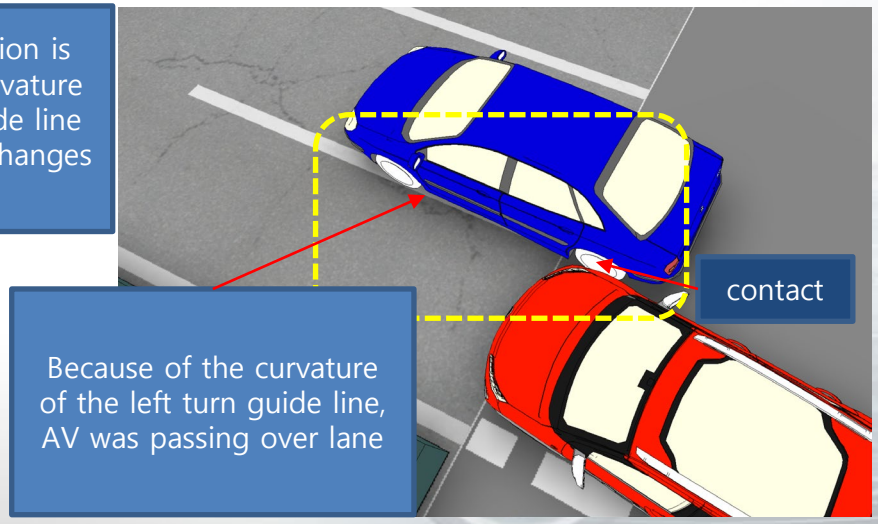
Giok Park

AV Traffic Accident Cases 1.

Case1

- Location : Intersection where 1st and 2nd lanes are dedicated to left turn
- Details : An automated vehicle that was turning left on the second lane had contact with another conventional vehicle that was turning left on the first lane
- Focus : Vehicle status is important for autonomous vehicle driving, but road environment status is also important. Sometimes, it is necessary to record where the autonomous vehicle was at the time of the accident and how the road conditions were

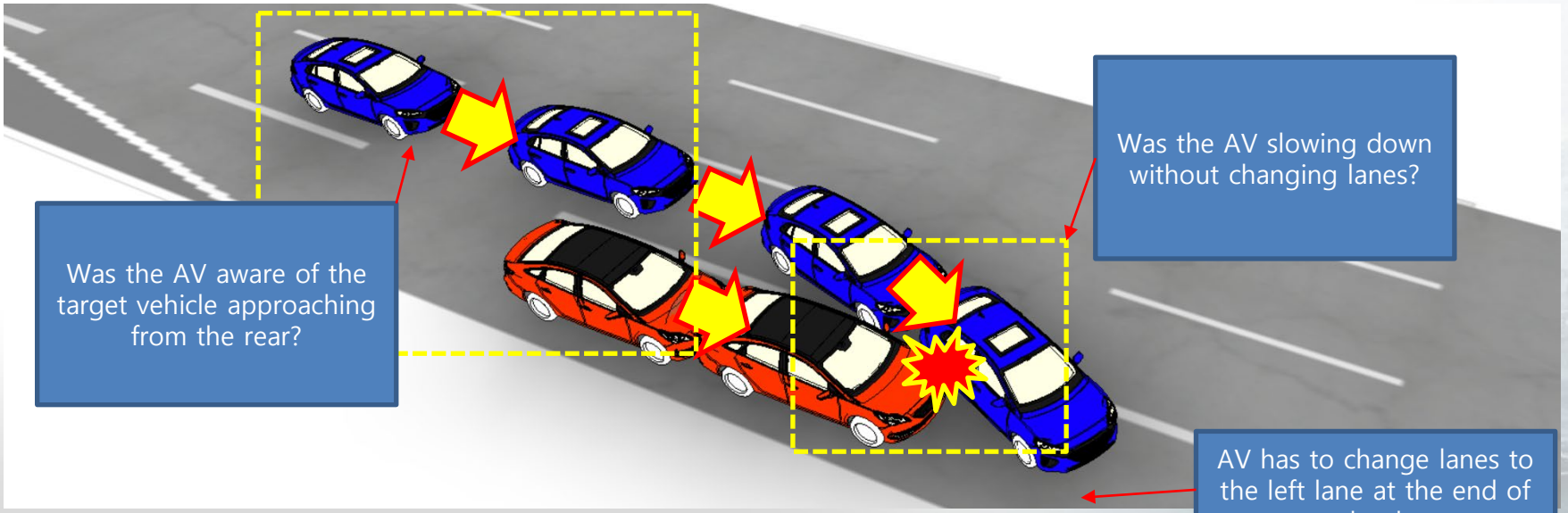




AV Traffic Accident Cases 2.

Case2

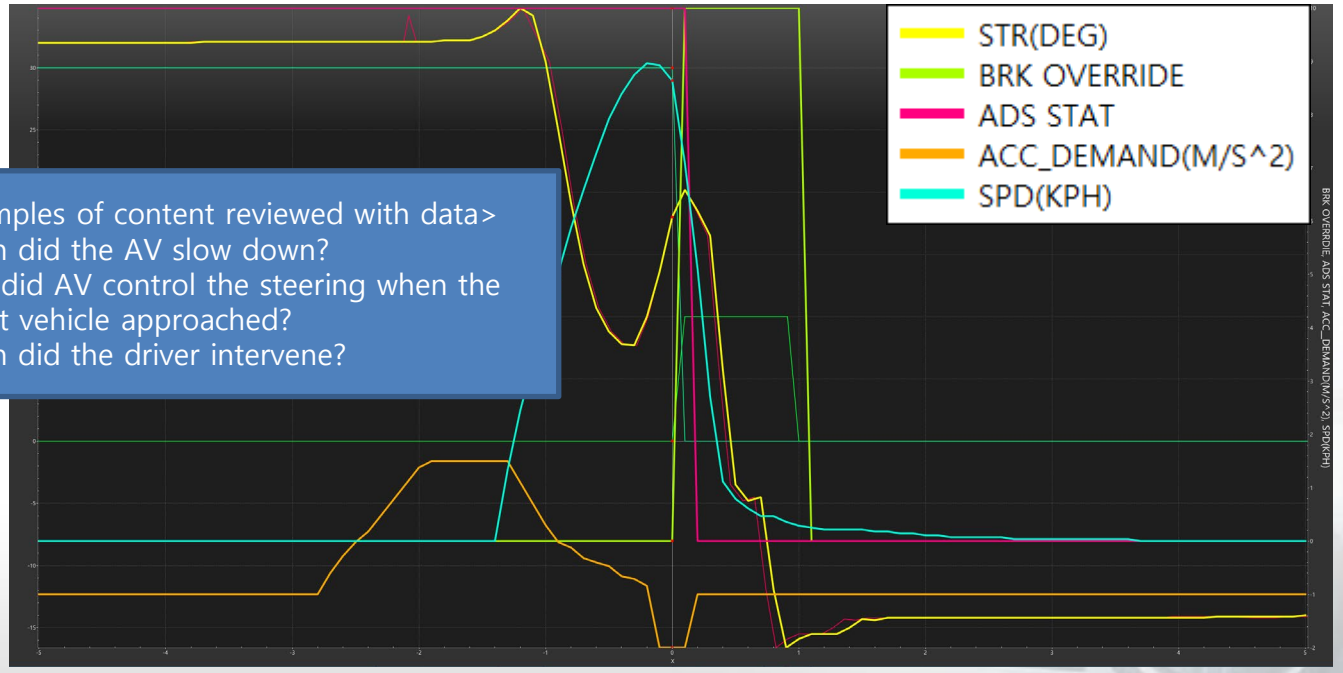
- Location : Shuttle bus stop(pocket lane)
- Details : Accident occurred when a conventional vehicle forced entered in front of a departing autonomous vehicle after stopping.
- Focus : (1) important to check whether the target vehicle approaching from the rear of the AV is recognized. (2) If target vehicle cuts in excessively, it is important to make sure that the AV has slowed down without changing the lane. (3) No recorded EDR data



AV Traffic Accident Cases 2.

Case2

- An example of the ADS data reviewed to determine how the AV was controlled prior to the accident.
- By comparing and analyzing the data and accident video, it was possible to confirm how the AV was controlled before the crash



Conclusion

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- ‘Time series data’ is more effective than ‘Time stamp data’ to evaluate overall safety performance.
- AV accidents are expected to cause many minor accidents, so need to prepare for near-miss events.
- We need to think about a near-miss and minor collision in EDR(step 2).
- In the case of triggering a near-miss event of EDR, the ‘time series’ of EDR data and the 'time stamp’ of DSSAD can be analyzed together.
- If it’s difficult to set up the near-miss event with EDR, I suggest allowing some data elements to be recorded in a time series with DSSAD.
- Additionally, continuous photo or video recording is proposed to clearly analyze the accuracy/timing of data recording.

Thank you

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