Scenario Making Using IPG Carmaker

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Abstract

Autonom is an event organized by SAE in order to know in detail about the future of autonomous cars in India and the solutions required to bring it in India. In this, we have build some scenarios related to Indian market and challenges we have to face on a software named IPG Carmaker. This software have various features which we have explored in order to be eligible for round 2 of this competition.

Introduction to IPG Carmaker

It is a software in which various features include which helps to create a user friendly scenarios, which tires will be suitable, maneuver commands, cars and their sensors, and it provide its 3D preview also in which we can see, whether our car ready to face Indian challenges?

Carmaker Scenarios

We have created 15 scenarios which shows different-different Indian challenges on which our car is running.
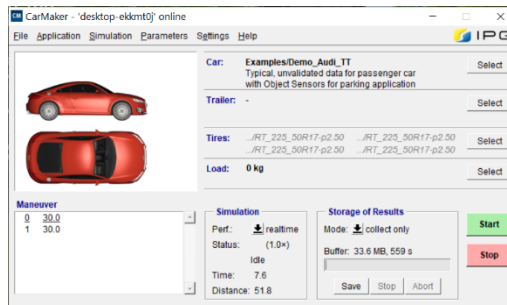
Figure 1

Figure 1 showing the initial page of IPG Carmaker which provides various features like car model selection, tires and load of the cars, maneuver command in which we give instructions to cars at what speed it have to run and for how much distance, we can control the beam of the light whether we want it high or low, we can control simulation results speed and data storage.
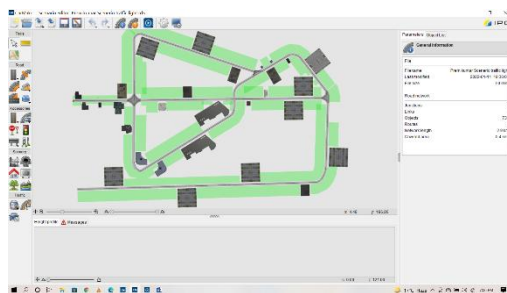

Figure 2

This is carmaker scenarios editor in which various features available like trees, building, roads, bridges, tunnel, objects include animals and people running or standing, traffic lights, etc.

Figure 3

Figure 4

Figure 3&4 showing the simulation preview.

These all helps us to understand about Indian challenges and whether our car is ready to face these challenges or not, or helps us to understand about what new technologies we need to add on it to improve the results.

Conclusion

By using IPG Carmaker, we have created 15+ scenarios showing different-different Indian situations and challenges and ran an inbuilt car on those challenges. We have successfully created all these scenarios and also made accidents with all these.

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