



MNIT CAM Society Members Won AUTONOM India 2021 Competition Organised by SAE-NIS



8th November 2021 – 2nd July, 2022

SAE NIS (Society of Automotive Engineers, North India Section) organized SAE Autonom focusing on autonomous vehicles considering the Indian road and traffic scenario. The competition focussed on getting solutions in form of sensor model serving/assisting drivers in India. The competition involved 40+ teams from various colleges from across India, with a team size of 5 to 10 members and 2 faculty advisors and was divided into four rounds. It was supported by leading brands of automobiles, sensors, and ancillaries, including Tata Motors, Maruti Suzuki, MG Motors, Continental, Bosch, Spark Minda, ATS, IPG, Mobility Outlook, ICAT and Aspire.

The competition kicked off on 8th November 2021 with workshops to introduce participants to the world of autonomous vehicles, the technology used, vehicle dynamics, sensors & their function, and real-world applications.

The first round was to create scenarios on “IPG Carmaker” software, where the conventional vehicles as well as ADAS vehicles failed or met with an accident in the Indian road conditions. It was a non-eliminating round, and the judgement was based on two criteria, viz, teams submitting a maximum number of valid scenarios (rated at least 5 out of 10 by judges) and teams achieving maximum scores. Both criteria involved prize money for the top 3 teams. In second round, the teams were given a set of scenarios by the jury and were asked to develop a sensor model for those specific scenarios using multiple sensors like Camera, RADAR and Ultrasonic Sensors. The teams were selected for the third round based on how many scenarios they were able to solve using their sensor model. The third round was an extension of its predecessor and the teams needed to develop a generalised sensor fusion model to solve any random scenario (not disclosed) decided by the jury. The teams which qualified for the fourth, and final round, were supposed to give a presentation, followed by an interview by the jury. The presentation included the mechanism on which the sensor model worked, its system architecture, its perks, and most importantly, the innovations put forward by the team. The interview was to cross-question various aspects of the sensor development and to evaluate whether the sensor developed is suitable for Indian road conditions. This was done in a virtual environment. The overall winners, based on performance in all four rounds combined, were declared on 2nd July 2022.

A felicitation ceremony was also organized by SAE NIS on 22nd July 2022 where representatives from the sponsors and organizing committee were present and the winners were provided with trophies and presentation cheques.

A total of four students of the CAM Society participated in the competition in two teams, with Dr. Harlal Singh Mali as the faculty advisor of one of the teams. A total of 3 awards were bagged, 1st Overall Position, 3rd Overall Position and 3rd Position in the First Round, making a total prize money of Rs. 1,90,000. Members of CAM Society who participated in the competition are, Ananya Maheshwari, Trisha Goyal, Chirayu Rankawat and Shailesh Suthar.

Competition Poster



Glimpses

