

Formula Student with ETAS

Platform for technology development and talent acquisition

Formula Student has grown into an international event that puts new technology through its paces in the fields of high-performance motorsports, electromobility, and autonomous driving. One of the highlights of the season in this student engineering competition is the annual race held in Germany that boasts a line-up of 118 teams from universities around the world.

For the past six years, ETAS has been a key partner and sponsor of Formula Student Germany. This year it supported more than 30 international teams with hardware and software from its product portfolio as well as technical skills and assistance from its in-house experts. ETAS solutions give the sponsored teams a significant competitive edge in the race series. The company's products are especially popular in the development of drive systems and have earned an excellent reputation thanks to their ease of use, broad range of applications, and widespread industry support. For ETAS, the event is an opportunity to familiarize students with its products early on and to meet highly qualified and motivated young talents.

Formula Student Germany is divided into three independent categories: Combustion, Electric, and Driverless. In the Combustion category, teams battle it out with conventionally powered racing

cars, while the Electric category sees electric cars compete for victory. The Driverless category, which was introduced last year, requires autonomous cars to recognize and complete a course unaided. A common thread through all three categories is that the cars competing are rated not just for their dynamic capabilities, but also for how well they fare in the economic and engineering disciplines of the competition. Their performance in these disciplines has a major impact on the final results.

The 13th edition of Formula Student Germany took place at the Hockenheimring from August 8 to 12, 2018. As the main sponsor, ETAS had its own booth at the event that proved to be a hot spot for technical questions, networking, meeting recruitment personnel, and enjoying some good coffee and chilled beverages. This year marked the Hockenheim debut the new „ETAS Blue Box“. First unveiled at the 2018 embedded world trade fair,

the Blue Box is a shipping container converted into a mobile ETAS exhibition booth. Equipped with a built-in counter and an ETAS LABCAR refrigerator, it was the perfect solution for the outdoor event at the Hockenheimring.

On the Monday, day one of the competition, the teams moved into their pits to ready themselves and their cars for the daunting challenges that lay ahead. But before they could demonstrate their technical expertise in the dynamic disciplines on the track, they first had to pass through the "scrutineering" stage – a series of tests designed to check the safety and race worthiness of the cars.

The static disciplines were held on Wednesday and Thursday, with the teams presenting their business plans, cost report, and engineering design. These disciplines are assessed by a jury of experts from a diverse range of companies in the automotive industry.

Friday was the chance for the teams to demonstrate their speed in the skid pad and acceleration tests. The skid pad test, which is held on a course in the shape of a figure of eight, aims to determine how much lateral acceleration the cars can generate. The acceleration test requires the race cars to accelerate as fast as possible over a distance of 75 meters. Saturday saw the teams go head-to-head in the autocross discipline, which also

determined the starting order for Sunday's endurance round. Held on a circuit that is 22 kilometers long, the endurance round, which also includes an obligatory change of driver at the halfway mark, tests the race cars for their durability.

The teams gave their all, ensuring a sensational competition that had everyone on the edge of their seats right up until the award ceremony. In the end, it was the University of Stuttgart racing team that were victorious in the Combustion category, narrowly beating the Graz University of Technology team by just a few points. Coburg University of Applied Sciences took third place. In a double win, the AMZ Racing team from ETH Zurich took the top spot in the Electric and Driverless vehicle categories. ETAS has been supporting all the winning teams for a number of years, helping them develop race cars that incorporate ETAS hardware and software solutions. Congratulations!

Author

Klaus Fronius is University Liaison Manager at ETAS GmbH.

