

Press release

Electric car acceleration

The 'grimsel' breaks world record

Zurich, 3 November 2014

The 'grimsel' electric racing car today broke the previous world record for acceleration in electric cars. The vehicle accelerated from 0 to 100 km/h in 1.785 seconds in under 30 metres. The new record was set by students from ETH Zurich and Lucerne University of Applied Sciences and Arts, who also designed and built the vehicle.

The Formula Student team at the Academic Motorsports Club Zurich (AMZ) finally did it: its 'grimsel' electric racing car smashed the previous world record when it accelerated from 0 to 100 km/h in just 1.785 seconds. The previous record of 2.134 seconds was held by an electric car built by Delft University of Technology. The new record was set at the military airfield in Dübendorf, where the vehicle reached a speed of 100 km per hour in less than 30 metres.

The new record-breaking vehicle is a Formula Student electric car that was developed and built in less than a year by 30 students at ETH Zurich and Lucerne University of Applied Sciences and Arts. The 'grimsel' is the fifth AMZ electric car and the result of continuous development. The carbon fibre construction has a total weight of 168 kg and produces about 200 hp. A four-wheel drive is implemented with four specially designed wheel hub motors, which generate a total torque of 1630 Nm at the wheels. By means of traction control, torque distribution is controlled individually for each wheel to maximise vehicle acceleration. No other production vehicle in the world has reached a similarly strong acceleration.

AMZ's most successful car

The 'grimsel' celebrated numerous successes at the Formula Student international competition this summer. With more than 500 teams, Formula Student is the world's biggest competition for engineers and is held annually at various locations around the globe. With three overall wins and an average of 920 points out of a possible 1,000, the 'grimsel' is AMZ's most successful car. And with its victories in Austria and Spain, it achieved the two highest scores in the European history of Formula Student.

These further strengthened AMZ's standing at the top of the Formula Student world rankings and demonstrated the potential in electric drive concepts.

Further information

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Experience the record-breaking racing car

You can experience the record-breaking car live at ETH Zurich's Treffpunkt Science City, which this year focuses on the theme 'top performance'. The Formula Student team will present the 'grimsel' to the public at the Student Power Day on Sunday 9 November at the ETH Hönggerberg campus. The test rides will take place between 12:00 pm and 2:00 pm. You can find further information on Treffpunkt Science City and Student Power Day here: <https://www.ethz.ch/de/news-und-veranstaltungen/veranstaltungen/treffpunkt.html>

Academic Motorsports Club Zurich

The Academic Motorsports Club Zurich (AMZ) was founded in 2006 by ETH students and produces a prototype to compete in various Formula Student competitions in Europe every year. After building three cars powered by the combustion engine, AMZ turned towards the production of an all-electric racing car in 2010. The association is financially independent and supported by numerous financial, manufacturing and parts sponsors, as well as institutes at various Swiss universities. AMZ is the only Swiss team in Formula Student. Additional information: www.amzracing.ch