

## PolytechNCM in Hannover, Germany



Peter the Great Polytechnic University and Leibniz University Hannover collaborate rather close. It allows to carry through a lot of common projects. And it also helped us to visit our friends - formula student team HorsePower Hannover. They kindly accepted us in summer (30.07 – 05.08). Next after that both of us took part in the most rated formula student competition – FS Germany.

Our journey began 28 of July, it took us a little bit more than 24 hours to get to Hannover. On Monday (30.07) our internship began. We went to the town of Wolfsburg at the Volkswagen factory. There for us was organized a tour of the plant. We visited part of the factory with a total area of over 300,000 square feet:

- Saw the process of assembling cars such as Volkswagen Passat, Golf, Tiguan, a robotic working assembly line for a vehicle chassis using KUKA robots with 6 degrees of freedom installed;
- Visited the frame molding line, with presses, the maximum force of which reaches 15,000 tons;
- Separating the chassis assembly (an incredible sight, when the suspension and the solid frame of the car are easily connected in front of you)
- Paint shop

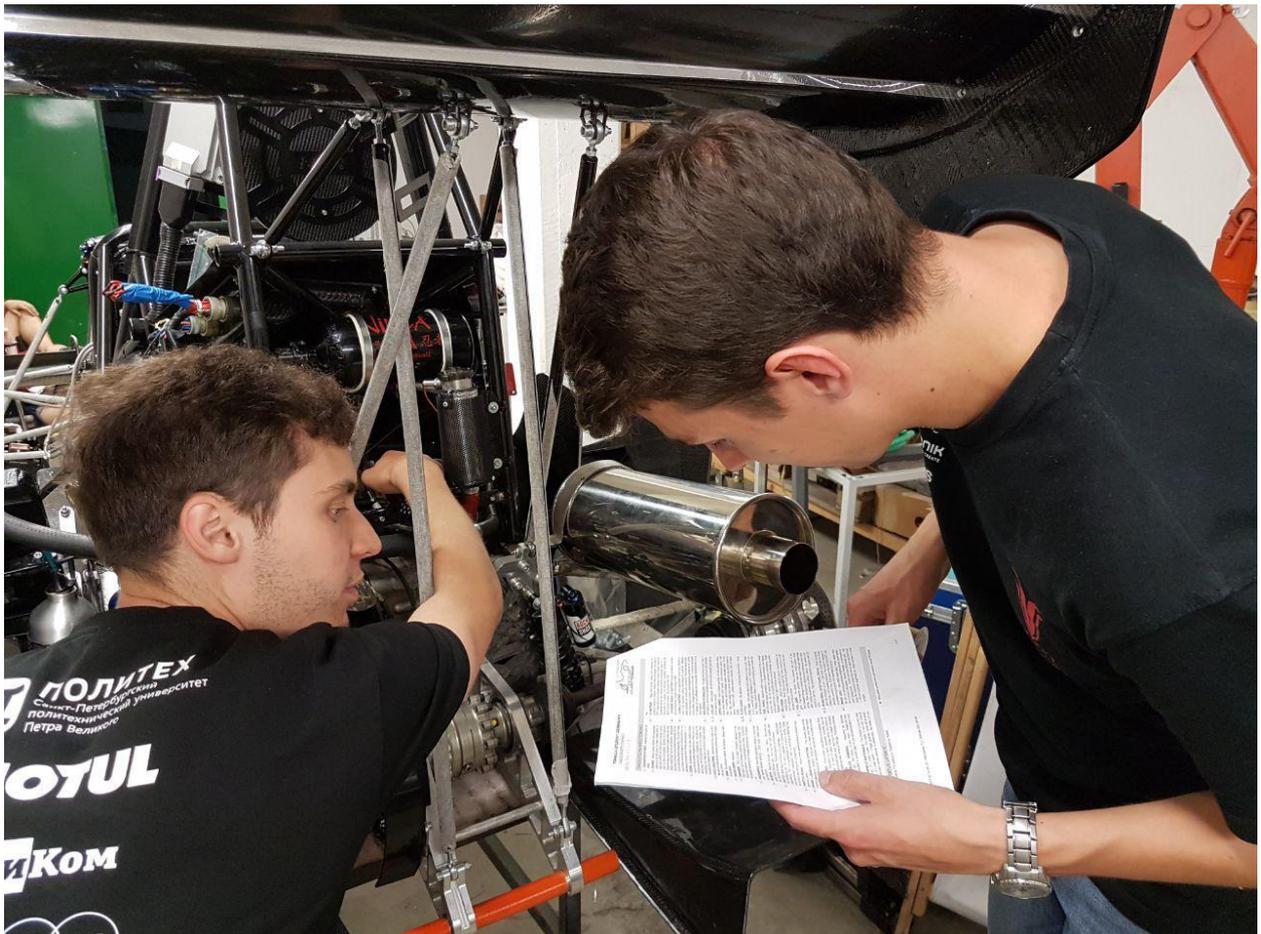
Then we visited Autostadt - the place where the future come true. Here are the concepts of the car of the future, you can see Porsche and Bentley in the cross section, as well as the latest models of these giants of engineering.

After that, there was a dinner for us, where we met the leader of the suspension department of Volkswagen. He is a huge fan of formula student and he shared with us a lot of interesting things in the

design and calculations of the suspension. It turned out that he himself was testing the suspension he developed - on a frozen lake on the famous Nordschleife.

Next day the team of Leibniz University was presented to us. We heard an interesting presentation about driverless concept and the technology of monocoque production. Alongside with presentations we had a very good opportunity to see in person and observe those concepts: HorsePower has 9 cars by this moment. Afterwards we had a coffee break and returned back to tune and prepare our car for the FSG competition.

On the third day our team was invited to Hildesheim Airport, which provides testing area for HorsePower. The track is equipped for driving both Combustion and Electric class cars, and for driverless class. We managed to work on due (our car) and test its abilities. After testing we returned back to workshop to continue preparation. It took us the whole day (Thursday).



For the next day we took short pause to have a rest and visited the famous Maschseefest which starts every year at the end of July in Hannover. At the end of week together with final preparations for the FSG, the technical inspection was held for us by our friends. That was a significant part of the internship – common training before the championship. Shortly after that we moved to Hockenheim. We are very proud of taking part in such big event as FSG 2018. After all we can say that it was a big experience and we hope to return next year and to perform better. We want to say a big thank you to HorsePower Hannover for having us and for the knowledge they shared. Also we would like to thank the International Office and the DAAD-Program for making this experience possible. We are looking forward to see you next summer!