

Vehicle Dynamics Award Contest 2019

thyssenkrupp Presta AG will be partner of the FS Austria event again in 2019. Our company is located in Liechtenstein and we are one of the most successful manufacturers of Steering Systems worldwide and leader of technology in the field of Cold Forging. thyssenkrupp Presta AG is also deeply involved in the development of steer by wire systems as well as vehicle motion control algorithms. This year we want to award the team with the best suspension and steering design with focus on vehicle dynamics and track performance. Particular interest will be given to innovative ways to optimize vehicle dynamics attributes by choosing the suspension and steering design.

The contest will be based on a short report (max. 4 pages), which explains the most important suspension and steering characteristics and what makes the design particularly successful.

Present the topology and kinematic choices that make the suspension / steering outstanding. Explain why those characteristics are crucial for the vehicle performance and drivability. Furthermore describe how the suspension affects vehicle behavior, vehicle attributes. If the system is active, control laws and control architecture should also be described. Comparison of this year's car to the previous one could also be a good way to assess the vehicle performance improvement.

The report should include which tools have been used to evaluate the target figures on the vehicle data analysis side and on the simulation side. The description of the method employed will have a strong impact on the final ranking.

The best reports will then be selected before the FSA event. The teams with the best ranking will be invited to discuss the suspension and steering layout on a more general base. The suspension behavior will be discussed in the context of compliance, drivability, performance or driver feedback. The final classification will be based on the outcome of the final discussion with the teams.

Award

A prize of 2000 EUR will be granted to the winner of the contest.

How to apply

Both combustion and electric cars, one award is given to the best team.

Upload your report via the fsaustria.at team account until 22 July 2019