

Driving the Future: CO₂ Neutrality and High-Performance Engineering

This two-part seminar series, organized by SAE Torino and Politecnico di Torino, brings together the expertise of retired Professor Michael Bargeude and Marco Arnoletti, a young head of powertrain engineering. Professor Bargeude will explore "Future Energy Systems and Road Transportation: A Key Factor to Reach CO₂ Neutrality," offering insights into sustainable strategies and energy systems for the automotive sector. Marco Arnoletti will present "Analysis of the Bugatti Tourbillon Powertrain using HiL approach," showcasing cutting-edge innovation in high-performance powertrain testing. This event offers students a unique blend of visionary knowledge and hands-on expertise in the future of road transportation.



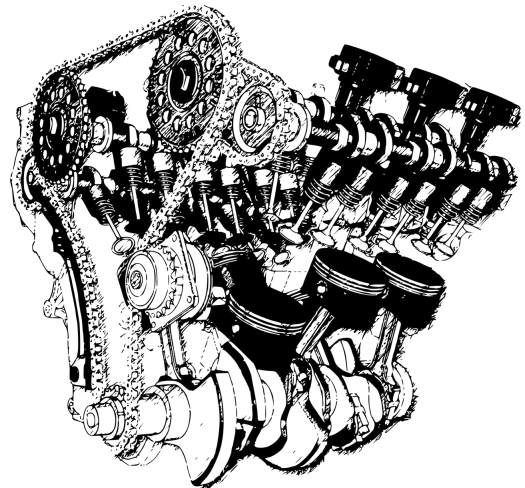
~~Room 4T| Politecnico di Torino~~

**📌 Update on Arnoletti's Seminar:
New Date, Time and Room!**

December 17th 2024

from 17.30 to 19.00

Room R3B| Politecnico di Torino



December 2nd 2024 - from 16.00 to 17.30

Michael BARGEUDE: "Future Energy Systems and Road Transportation: a key factor to reach CO₂ neutrality"

December 16th 2024 - from 16.00 to 17.30

Marco ARNOLETTI: "Analysis of the Bugatti Powertrain using HiL approach"

The Bugatti Tourbillon Powertrain is a brand new architecture designed from blank paper; this characteristic, together with this Powertrain complexity, requires a reliable tool capable to connect the virtual analysis environment with test bench, in order to allow us to debug the system and optimize its calibration and controllability; this presentation aims to give an insight of the HiL methodology developed at Bugatti Rimac



**NEWS
UPDATE**



Michael BARGENDE

Michael Bargende is a retired full professor at the Institute of Automotive Engineering Stuttgart (IFS), University of Stuttgart, where he has held the Chair of Automotive Powertrains.

In joint appointment he was also a member of the Board of Management of the Research Institute for Automotive Engineering and Vehicle Engines Stuttgart (FKFS) in Stuttgart, Germany. He retired from these positions in October 2022.

His move to academia in 1998 followed a 17-year career in research and development at Daimler-Benz and Mercedes-Benz in Stuttgart, Germany.

Until today he has been the advisor for more than 150 PhD dissertations on combustion engines and powertrain-related topics. He is the author or co-author of more than 450 scientific publications (ca. 85 SAE Papers) on the subjects of combustion, thermodynamics, gas exchange, NVH, mechanics, modeling, simulation and control of internal combustion engines, as well as hybrid powertrains, and he is the editor or co-author of several professional books (reference books, volumes, conference proceedings) on the subject of Gasoline and Diesel Engines, Natural Gas Engines and Hybrid Powertrains.

Michael Bargende is a member of various scientific organizations, associations and councils, and he is a reviewer for several German research associations, such as DFG and AiF. In 2015, he was elected to become an SAE Fellow.



Marco ARNOLETTI

Marco Arnoletti, an Automotive Engineer with four degrees, specializes in powertrain systems with over 12 years of experience in luxury and sports car development. Currently Powertrain Chief Engineer at Bugatti Rimac, he has contributed to groundbreaking projects such as the Bugatti Bolide and Rimac Nevera.

Previously, he held leadership roles at Aston Martin (managing mid-engine platforms) and Maserati (leading powertrain virtual analysis). Marco is also a seasoned FIA rally co-driver, participating in over 30 races, including seven Dakar Rallies, achieving a top-10 finish. With expertise in powertrain design, emissions control, and hybrid optimization, he also served as a design judge for Alpe Adria Formula Student competitions and mentored several engineering students during their thesis work.