

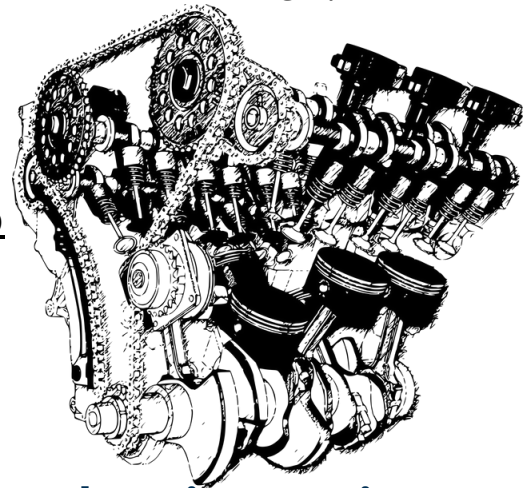
Innovating the Internal Combustion Engine: Next-Generation Design for Sustainable Fuels and Hybrid Powertrain Solutions

This seminar series, presented by two highly experienced automotive engineers with over 40 years in the field, will dive into the future of internal combustion engine design, providing PoliTO students a cutting-edge understanding of sustainable engine technologies and practical insights on reshaping internal combustion engines for modern applications.

Organized by SAE Torino and Politecnico di Torino, the sessions will cover advanced topics including hydrogen bio and e-fuels, hybrid powertrains, and high-performance engines.



Room R3B | Politecnico di Torino



November 8th 2024 - from 14.30 to 16.00

**Giovanni MAIORANA: "Internal Combustion Engines:
CO₂ neutral perspectives and Design for Hydrogen
fuel"**

November 29th 2024 - from 14.30 to 16.00

**Angelo CAMERINI: "Main Steps of Development of a
High Performance Turbocharged Hybrid Engine"**

December 6th 2024 - from 14.30 to 16.00

**Giovanni MAIORANA: "Internal Combustion Engines:
The Process Development in the Automotive Field"**

December 13th 2024 - from 14.30 to 16.00

**Giovanni MAIORANA: "Designing Internal Combustion
Engines Tailored for Hybrid Powertrains"**



Giovanni MAIORANA

Graduating in Mechanical Engineering from the Politecnico di Torino, he has built a career spanning 40 years in engine design and calculations.

He joined Fiat Auto in 1984 in Engine Design, and by 1988, he had become a Project Manager for a new family of engines produced in Pratola Serra.

In 1995, he led Diesel Engine Design, developing the JTD and Multijet engines with common rail injection.

In 2000, he took on responsibility for Diesel engine design at FIAT-GM Powertrain. From 2006 to 2016, he directed the development of new gasoline and Diesel engines as well as pre-development projects, later adding responsibility for powertrain calculations and simulations.

He has designed 20 gasoline and Diesel engines, ranging from 1L to 16L, which have been produced for brands such as FIAT, Lancia, Alfa Romeo, Opel, Vauxhall, Cadillac, Suzuki, Maserati, Jeep, Dodge, CNH, Peugeot, and Citroen. Additionally, he has led 15 engines in study and research/pre-development projects, focusing on engine architecture, materials, fluid dynamics, combustion, and production processes. His achievements also include 11 patents and 5 additional patent applications across various fields, 12 technical articles and publications, and experience as an instructor in 10 internal training courses.



Angelo CAMERINI

After graduating in Mechanical Engineering from University of Pisa, he has enjoyed an illustrious 40-year career in engineering and automotive design.

His journey began as a high school teacher and design engineer before joining Ferrari from 1989 to 1998 as a Design and Calculation Engineer.

In 1998, he moved to BMW, where he served as the F1 Engine Chief Designer until 2008.

From 2008 to 2011, he was Head of Racing Engines Development at FPT Racing, working with ABARTH.

His next role, from 2011 to 2017, saw him return to Ferrari to lead the development of the 488 LMGTE engine.

From 2017 to 2020, he worked at McLaren as Head of Engine Design and Development.

He then moved to Lamborghini, where he has served as Head of Powertrain Design, Simulation, and Development since 2020.