

**KM Conference 2025**  
**Industry Day**  
**Wednesday, 25 June 2025**  
**University of Siena, Italy**  
<https://iiakm.org/conference/>

**Invited Talk**  
**The Rise of AI Edge in Motorsport**

**Luca Buscherini**

Sales Director – System Electronics  
<https://www.systemelectronics.com/>

**Abstract**

Unlike traditional cloud-based systems, Edge Artificial Intelligence (AI) enables real-time analytics by executing AI models directly on embedded hardware located in the vehicle or at the edge of the network. This local processing capability significantly reduces latency, ensures continuous operation regardless of network connectivity, and enhances data privacy and security.

In the motorsport context, Edge AI can be leveraged for a wide range of applications.

These include:

- real-time telemetry analysis for immediate feedback on vehicle performance,
- predictive maintenance by detecting anomalies in sensor data before component failure,
- adaptive race strategies that respond dynamically to changing conditions on the track.
- additionally, Edge AI facilitates advanced driver behavior analysis, contributing to improved safety and performance optimization.

By enabling high-speed, low-latency decision-making, Edge AI empowers racing teams to react instantly to critical events, refine their strategies on the fly, and gain a measurable competitive edge. This technology not only enhances the operational efficiency of racing teams but also paves the way for innovation in vehicle design, autonomous systems, and next-generation motorsport engineering.

**About the Speaker**

Luca Buscherini is a seasoned electronic engineer with over 30 years of management experience in executive roles at renowned international technology sectors as ICT, Telco, Power sectors and Automotive. His career includes significant roles at international technology companies such as Nokia, Siemens, AEG and Riello Industries. Since June 2024, Buscherini holds the position of Sales Director Electronics at COESIA - System Electronics, an international group specializing in advanced electronic industrial, commercial and automotive solutions.

