



1st International Congress



Automotive Electronics:
driving the future
of **Powertrain and Electrification**

10-11 June 2010

**Cascina Medici del Vascello
at Reggia di Venaria**



Foreword

Today the conventional car is facing a paradigm shift towards a quite diversified range of solutions provided in the future for personal transportation across the world.

Several factors are responsible for this evolution on the global scenario. In particular a race is underway to reduce the dependency on traditional fossil fuels and the impact on environment. Moreover, a rapid change is taking place regarding how customers view the vehicles they will choose to purchase in future and their intended purpose.

On the political front, a balanced compromise is being sought between energy availability and the respect of environment on one side with the need to ensure and promote the competitiveness of European industry while facilitating mobility and goods transportation on the other. Governments across the world are promoting and funding technical innovations on an unprecedented scale as a means of securing the economic future of the automotive sector. Scheme to encourage the exploitation of alternative and renewable sources of energy, together with legislative pressure on emissions control and improved fuel efficiency, will also significantly influence the solutions which will be proposed by vehicle manufacturers.

In such a scenario, the automotive electronics industry is facing new and crucial challenges linked both to the technical evolutions and the international changing economic context: emerging new business models, new emerging players, environmentally friendly demand, standardization, new customers demands and needs, partnerships evolutions...

The technical sessions will highlight how the automotive electronic concepts are meeting the needs of global markets and vehicle class, downsizing in terms of intelligent solutions relevant to the final customer.

The focus will be on the future of automotive electronic technologies managing powertrain and chassis, emerging standards affecting the electronic architecture, advanced control concepts and power electronics as the enabling technology for HEV-EV.

This event will combine high level key notes, 27 specialized presentations and associated discussions in a workshop-style atmosphere. It is ideal for professionals focused on assessing how automotive electronics will enable the development of the next generation of powertrain and vehicle technologies that address the EU's proposed greenhouse gas targets.

The Congress will be held in conjunction with the ECPE (European Center for Power Electronics) Tutorial on "Reliability of Power Electronic Systems – Robustness Validation in Automotive (Power) Electronics" so Torino, for almost one week, will be the ideal technical location in the domain of automotive electronics.

We cordially invite you to be part of this event.

Key topics

- Future of automotive electronic technologies
- Emerging standards affecting the electronic architecture
- Power electronics as the enabling technology for PHEV-EV.

Key domains

- Engine
- Transmission
- Start-Stop, PHEV, HEV
- Active systems for chassis (Braking, Steering, Suspension)
- Vehicle stability

Europe's top congress

- Key notes and high level lectures
- Networking cultural events.

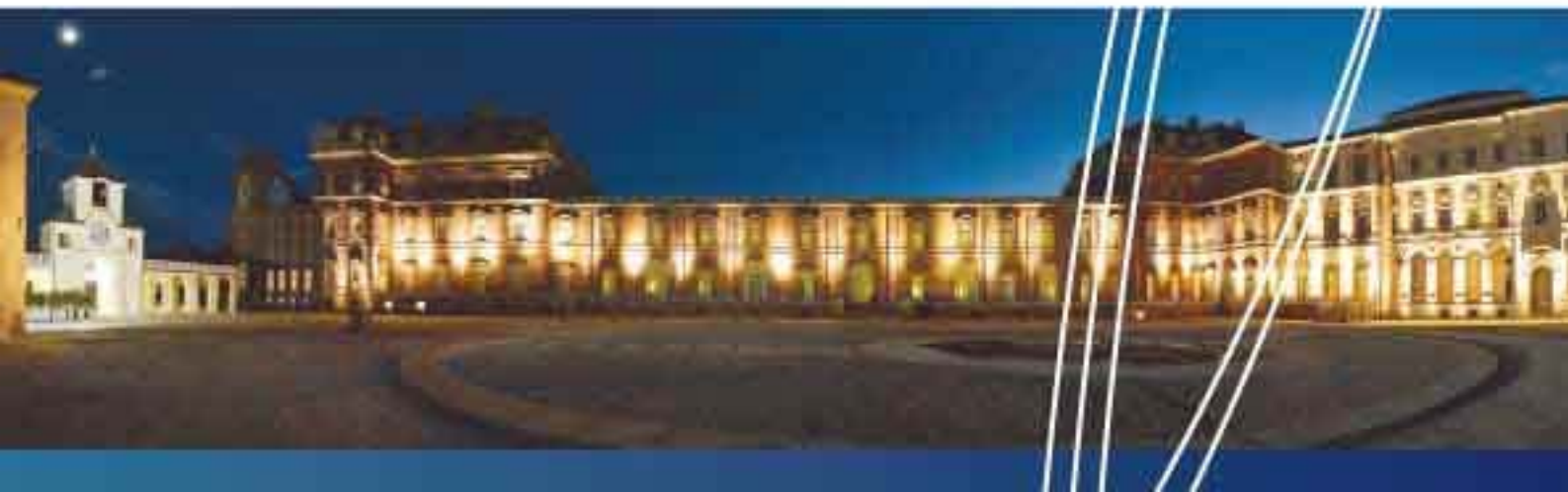
CHAIRMAN OF THE CONGRESS: Riccardo Groppo (FPT-R&T)

Congress Organization

ATA Italy & Piemonte

Technical Committee

FPT	Riccardo Groppo
IFX	Patrick Leteinturier
FSL	Rainer Makowitz
STAN	Ian Riches





June

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8.00 - 9.15 Participants' registration

9.15 - 9.30 Welcome addresses

9.30 - 10.00 Key Note 1: Future Powertrain Technologies
R. Rinolfi (FIAT Powertrain Technologies)

10.00 - 11.00 Session 1 - Electronic control systems: architecture evolution - part 1 chaired by R. Groppo (FPT-R&T)

- P. Leteinturier, S. Brewerton, K. Scheibert (Infineon Technologies) - Advanced microcontroller architectures for safety critical powertrain systems
- J. Habenschaden, R. Geiger (ZF Electronics) - Development of modular electronic control units at high temperature demands
- A. Manzone, P. Santero, C. Genta (FPT-R&T) - Flexible and intelligent automotive driver for a wide range of powertrain applications

11.00 - 11.15 Networking break

11.15 - 12.15 Session 1 - Electronic control systems: architecture evolution - part 2 chaired by R. Groppo (FPT-R&T)

- D. Santo (Freescale Semiconductor) - Automotive trends: architecture and technology
- V. Giorgetta, P. Carbonaro (Magneti Marelli-PWT) - Introducing the new generation of powertrain platforms at MM-PWT

12.20 - 13.20 Lunch

13.20 - 13:50 Key Note 2: SW architecture and standardisation as enabler for future cooperation and business models-O. Stralau (Robert Bosch)

13.50 - 15.10 Session 2 - Embedded systems and standardisation

- C. Temple, M. Baumeister, R. Schlagenhaft (Freescale Semiconductor) - Iso26262: Functional safety from theory to practical solutions
- A. Graf, G. Wirrer, G. Winkler (Continental Automotive) - PowerSAR - Open System and Function Architecture for the next Gen Powertrain Platform EMS3
- W. Nesci, S. Angellotti, S. Monti (Magneti Marelli-PWT) - Experience from AUTOSAR introduction at MM-PWT
- F. Bogenberger (Elektrobit Automotive) - Practical experience with MultiCore AUTOSAR

15.10 - 15.30 Networking break

15.30 - 16.00 Key Note 3: From the ULCC to the fully connected EV/PHEV, reinventing automotive electronics together?
D. Griot (Freescale Semiconductor)

16.00 - 17.20 Panel Session - The changing scenario: political, market and business trends coordinated by I. Riches (Strategy Analytics)

I. Riches - Automotive Electronics: Challenges and Opportunities

- M. Boukerche (EC Commission)
- J. Fetzer (SB LiMotive Germany)
- J. Hanebeck (Infineon Technologies)
- E. Schutz (ARTEMIS JU)
- P. Toselli (Magneti Marelli Powertrain)
- J. Weyer (Freescale Semiconductor)

18.30 BUS TRANSFER TO TURIN CENTRE

20.00 - 22.30 DINNER



June

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9.00 – 9.30 Key Note 4: Next generation of vehicles: the contribution of automotive electronics–S. Re Fiorentin (Fiat Group Automobiles)

**9.30 – 10.50 Session 4 – Innovations for control strategies
chaired by A. Pisoni (General Motors Powertrain Europe)**

- A. Ruggiero, E. Lanfranco, U. Caiazzo, I. Vergine (FPT-R&T)
Electronic control strategies as key factors for passenger car Diesel engines compliance to EURO6
- B. Köppl, D. Graovac, M. Scheffer, A. Merello (Infineon Technologies)
3-phase PWM methods for FOC automotive applications
- R. Wurm (Continental Automotive) - DCT Control Software - Flexibility of a Modular Concept
- M. Cisternino (General Motors Powertrain Europe)- GM Extended Range Electric Vehicle: creating a new propulsion category for practical EV

10.50 – 11.10 Networking break

11.10 – 11.40 Key Note 5: Semiconductor technology trends enabling automotive solutions - J. Hanebeck (Infineon Technologies)

**11.40 – 13.00 Session 5 – Micro technology evolution
chaired by R. Makowitz (Freescale Semiconductor)**

- B. Michel, J. Keller (IZM Berlin) - Automotive Electronics and Related Nanoreliability Issues
- P. D'Abramo, M. Schrems, F. Tinfena, E. Wachmann (Austriamicrosystems)
Low cost highly scalable HV-CMOS technology for automotive applications
- C. Schepens (Cavendish Kinetics), A. Chimenton, C. Zambelli (Università di Ferrara) - MEMS-based non-volatile memory for harsh environments
- P. Leteinturier, C. Castro (Infineon Technologies) - Coreless transformer technology for next generation of xEV

13.00 – 13.50 Lunch

13.50 – 14.20 Key Note 6: Power electronics systems integration at ST Microelectronics – M. Lo Presti (ST Microelectronics)

**14.20 – 15.40 Session 6 – Power electronics
chaired by M. März (FhG)**

- R. Makowitz, H. Gryska (Freescale Semiconductor) - Energy efficient electronics for electric and hybrid vehicles
- A. Ferrè (Lear Corporation) - There's Plenty of Room at the Bottom. Power Electronics in Conventional ICE Vehicles
- K. Rechberger (Robert Bosch) – Bosch Power Electronics–Mobility with future
- N. Abbate (ST Microelectronics) - From ICs to embedded systems for automotive powertrains: the ST Microelectronics ASIM approach

15.40 – 15.50 A 10-minute-quick break

**15.50 – 17.10 Session 7 – Energy storage management
chaired by P. Leteinturier (Infineon Technologies)**

- M. März (FhG Nuremberg) – Smart power source – a cost effective system solution for hybrid and all-electric vehicles
- P. Miller (Ricardo) - Battery Management for Automotive Applications
- S. Butzmann, J. Fetzer, H. Fink (SB LiMotive Germany)
Li-Ion batteries go automotive
- C. Lanciotti (Arcotronics Industries, a Kemet company)
Energy Storage Devices for Mobility Applications: Production Technologies

17.10 – 17.30 Congress Closure & Prize-giving to the Best Presentation

Contact

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Congress Venue

Cascina Medici del Vascello - Address: Viale Carlo Emanuele II s.n. (in front of Magneti Marelli factory plant) - Venaria Reale (TO), Italy. It is located in the premises of Reggia di Venaria.
To obtain more information about the magnificent Reggia di Venaria, you can virtually visit it by clicking on <http://www.lavenaria.it/>

How to reach the congress

You can reach the congress venue: by bus transfer provided by ATA from Turin centre, by taxi (about 25 - 30 € from the airport and about 30 - 35 € from Turin Centre) or by car. If you are driving, the two exits of the Turin Northern Ring Road (*Tangenziale Nord*) for reaching the congress are: VENARIA or VENARIA/SAVONERA. Then follow signs for REGGIA DI VENARIA.

Car parking

Parking area is in Viale Carlo Emanuele II.

Dedicated bus transfer from/to Turin Centre – congress

A bus transfer will be provided in the morning to take the delegates who need a transport from Turin to the congress venue and at the end of the day, to take them back.

The bus company is called MENINI. To be easily recognised, the driver will put a sign on the front windscreen: ATA CONFERENCE - VENARIA.

Please refer to the following timetable for departure times and meeting points location.

We strongly recommend to tick, on the registration form, the box 'I need bus transport from/to Turin Centre' and to choose one of the meeting points, if you are interested in getting this service.

For any problems at your arrival at the meeting point, please contact Marisa Giunipero on her mobile +39.335.1741777

Please be always on time at your meeting points.

10 June 2010

TIME	LOCATION
8:00	Meeting Point 1 – From Turin Centre (Porta Nuova Railways station on the corner of Corso Vittorio Emanuele II and Via Sacchi) to the congress
8:10	Meeting Point 2 – From Turin Centre (Piazza Solferino in front of Teatro Alfieri) to the congress
9.00	Arrival at the congress
18:30	Transfer from the congress to the restaurant for dinner.

11 June 2010

TIME	LOCATION
8:00	Meeting Point 1 – From Turin Centre (Porta Nuova Railways station) on the corner of Corso Vittorio Emanuele II and Via Sacchi) to the congress
8:10	Meeting Point 2 – From Turin Centre (Piazza Solferino in front of Teatro Alfieri) to the congress
9.00	Arrival at the congress
17:30	Transfer from the congress to Porta Nuova Railways station on the corner of Corso Vittorio Emanuele II and Via Sacchi (at the same stop of the shuttle bus to the airport).

Language and presentations

Papers will be written and presented in English.

It will be possible to download all presentations from the ATA website, after the Conference. The access will be limited to the participants, by using a password that will be provided by email.

Exhibition

If your company is interested in distributing brochures or exhibiting small components, please contact us to book an exhibition desk.

Registration & cancellation policy

It is possible to register either on-line or via fax.

Full refunds will be given to cancellations received in writing prior to **26 May 2010**. No refunds will be given after this deadline.

Replacement delegates are welcome at any time.

Payment

We accept payment:

- on-line
- by bank transfer
- by credit card at the reception desk.

Congress dinner

A dinner is scheduled on 10 June at the restaurant I Canottieri Esperia – Corso Moncalieri 2 - Torino, on the banks of the river Po. Each registered participant is entitled to attend the dinner, but please indicate on the registration form your plans to attend it or not. Accompanying persons may also attend the dinner, upon purchasing additional ticket(s).

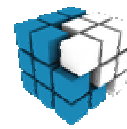
Accommodation

Accommodation is not included in the registration fee. For information/booking please click on www.eventiturismo.it in the session related to our event.

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Registration Form

**Automotive Electronics:
driving the future in the Powertrain and electrification
10 - 11 June 2010, Cascina Medici del Vascello at Reggia di Venaria**

Please complete this form and return it
Fax: +39.011.9080400 e-mail: marisa.giunipero@crf.it

Surname.....Name.....
Title and position.....
Company.....Dept.....
Address.....
Post Code.....City.....Country.....
Phone.....Mobile.....
Fax.....
E-mail

Registration fees

(Proceedings, coffee, 2 lunches, congress dinner and 20% VAT are included)

- Speaker € 240,00
 ATA member € 600,00
 Delegate (ATA non member) € 720,00

I WILL ATTEND THE CONGRESS DINNER YES NO

I NEED TRANSPORT FROM TURIN CENTRE/CONGRESS AND BACK YES NO

Payment

- Bank transfer to A.T.A. - S.r.L. - Banca Popolare di Novara, Filiale, Beinasco TO (Italy)
IBAN: IT82G0560830090000000020407 - SWIFT CODE: NVRBIT-2N

- Credit card at the congress reception desk.

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No refunds will be given after this deadline.*

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In compliance with art. 7 of Italian law 196/2003, your personal data are used exclusively for processing ATA activities. For further information about our privacy policy: <http://www.ata.it/en/content/42/privacy/>

Date.....Signature.....