

Third Edition



BARI AUTOMOTIVE
SUMMER SCHOOL



Palazzo Sagges - isolato 47
Polytechnic University of Bari, Italy
September 17 - 22, 2018



Politecnico
di Bari



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BARI AUTOMOTIVE
SUMMER SCHOOL

September 17 - 22, 2018

Program 17.09.2018

- ◆ **Registration** 08:00
- ◆ **Welcome:** 09:00
 - Prof. E. Di Sciascio (Politecnico di Bari)*
 - Prof. R. Amirante (Politecnico di Bari)*
 - Prof. S. Camporeale (Politecnico di Bari)*
 - Dr. Ing. A. Arvizzigno (Centro Studi Componenti per Veicoli S.p.A.)*

- ◆ **Keynote Lecture: The vision of Bosch about Powertrain** 09:15
 - Dr. Ing. A. Arvizzigno (Centro Studi Componenti per Veicoli S.p.A.)*
 - Dr. Ing. P. Ciccarese (Centro Studi Componenti per Veicoli S.p.A.)*

- Coffe Break 10:15

- ◆ **1D and multi-D fluid dynamic models for engine design** 10:30
 - Prof. G. D'Errico (Politecnico di Milano)*

- Lunch 13:00

- ◆ **1D and multi-D fluid dynamic models for engine design** 14:00
 - Prof. G. D'Errico (Politecnico di Milano)*

- ◆ **Advanced Method for Planning** 15:00
 - Dr. Ing. S. Schmittinger (Robert Bosch GmbH)*

- ◆ **Teamwork - Team of Bosch CVIT** 16:00



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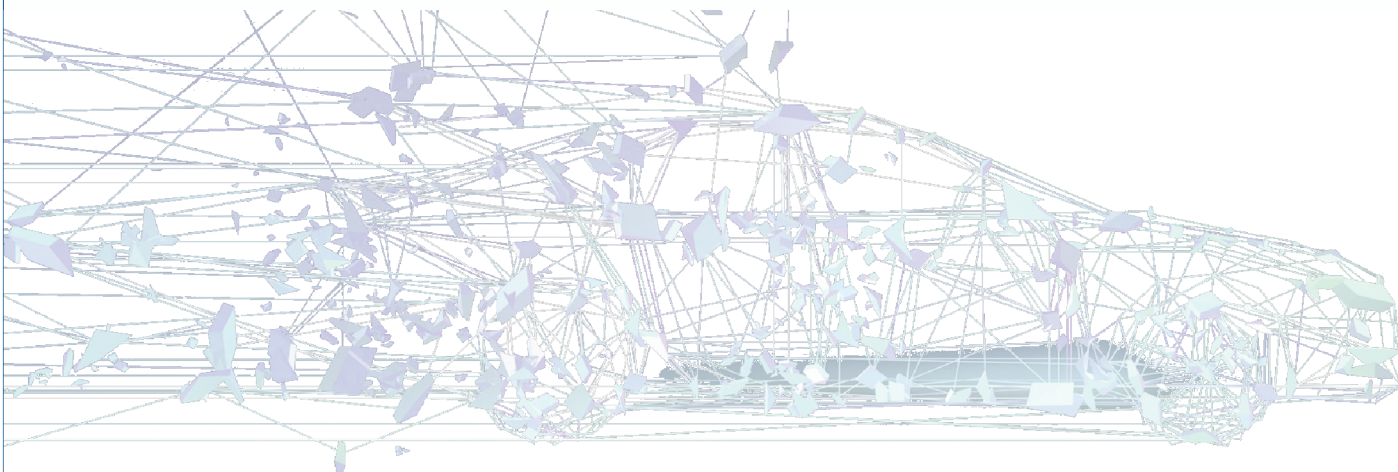


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September 17 - 22, 2018

Program 18.09.2018

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|---|-------|
| ◆ Electric machines for traction applications
<i>Prof. F. Cupertino (Politecnico di Bari)</i> | 08:30 |
| Coffee Break | 10:30 |
| ◆ Electrical Drive System Design for Commercial Vehicle Applications using a Demo Car
<i>Dipl.-Ing. M. Lehner (Robert Bosch GmbH)</i> | 11:00 |
| Lunch | 13:00 |
| ◆ Future electrical mobility scenarios and their impact on the Italian energy system
<i>Prof. M. La Scala (Politecnico di Bari)</i> | 14:00 |
| ◆ Teamwork - Team of Bosch CVIT | 16:00 |



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September 17 - 22, 2018

Program 19.09.2018

- ◆ **Hybrid propulsion systems for automotive applications** 08:30
Prof. N. Cavina (Università di Bologna)
- Coffe Break 10:30
- ◆ **Control and energy optimization of hybrid propulsion systems** 11:00
Prof. N. Cavina (Università di Bologna)
- ◆ **AUTOSAR a new SW methodology** 12:00
Dr. Ing. C. Bernard (ETAS Engineering Tools)
- Lunch 13:00
- ◆ **From statistical models to Machine Learning for autonomous calibration of combustion engines** 14:00
Dr. Ing. F. Miccolis (Centro Studi Componenti per Veicoli S.p.A.)
- ◆ **Gaseous and particulate emissions in spark ignition engines** 15:00
Dr. Ing. E. Distaso (Politecnico di Bari)
- ◆ **Teamwork - Team of Bosch CVIT** 16:00



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September 17 - 22, 2018

Program 20.09.2018

- ◆ **Transfer to Centro Studi Componenti per Veicoli S.p.A.** 08:00
(transfer is included)

- ◆ **IoT for Automotive** 09:00
Dr. Ing. M. Longo (Centro Studi Componenti per Veicoli S.p.A.)

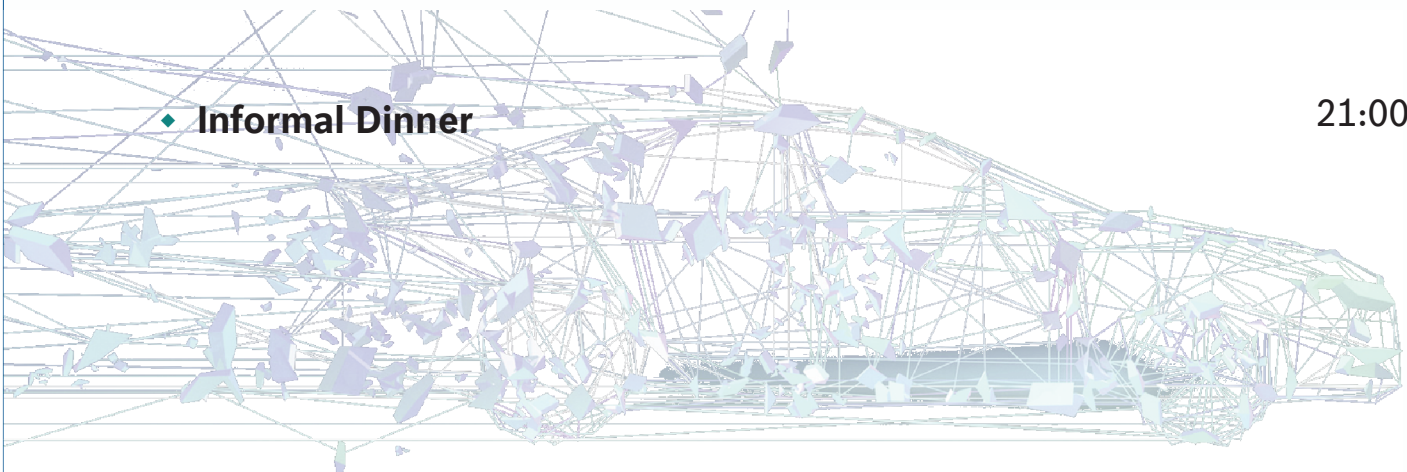
- ◆ **Visit of Centro Studi componenti per Veicoli S.p.A.** 10:30

- Lunch 13:00

- ◆ **Transfer to Politecnico di Bari** 15:00
(transfer is included)

- ◆ **Teamworks - Team of Bosch CVIT** 16:00

- ◆ **Informal Dinner** 21:00



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BARI AUTOMOTIVE
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September 17 - 22, 2018

Program 21.09.2018 - Conference

Rettorato Politecnico di Bari - Sala Video Conferenza - Via Amendola 126/B Bari

- ◆ **Welcome** 09:00
Prof. E. Di Sciascio (Politecnico di Bari)
Prof. R. Amirante (Politecnico di Bari)
Prof. S. Camporeale (Politecnico di Bari)
Dr. Ing. A. Arvizzigno (Centro Studi Componenti per Veicoli S.p.A.)

- ◆ **Key note iniziale - "Note i4.0"** 09:10
Prof. E. Di Sciascio (Politecnico di Bari)

- ◆ **Key note iniziale - "Future Powertrain Solutions for Commercial Vehicles"** 09:30
Dr. Ing. J. Thurso (Robert Bosch GmbH)

- ◆ **Connectivity in Automotive. Web based validation: a tool to test product with real load** 10:00
Dr. Ing. N. Bjoern (Robert Bosch GmbH)

- ◆ **Smart Function @ eSV Pumps** 10:30
Dr. Ing. G. Ficarella (Centro Studi Componenti per Veicoli S.p.A.)

- ◆ **Networking coffee** 11:00



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Rettorato Politecnico di Bari - Sala Video Conferenza - Via Amendola 126/B Bari

- ◆ **Team Work Presentation & Winner Selection** 10:00
- ◆ **Lunch** 13:00
- ◆ **Team Work Award** 14:00
- ◆ **New technologies for high efficiency spark ignition engines** 14:30
Dr. F. Bozza (CNR)
- ◆ **Integrated Methodologies for Propulsion Optimization** 15:00
Dr. Ing. B. M. Vaglieco (Istituto Motori - CNR)
- ◆ **Energy Management of Conventional and Hybrid Powertrains making use of Electronic Horizon and ADAS** 15:00
Prof. I. Arsie (Università degli Studi di Salerno)
- ◆ **Automotive after-treatment devices: complex reacting flow analysis and technology perspectives** 15:20
Dr. Ing. F. Fornarelli (Politecnico di Bari)



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- ◆ **New Challenges for Motorbike emissions** 15:40
Dr. Ing. R. Ranieri (Centro Studi Componenti per Veicoli S.p.A.)

- ◆ **The new era of Autonomous Calibration** 16:00
Dr. Ing. F. Miccolis (Centro Studi Componenti per Veicoli S.p.A.)

- ◆ **Simplified emissions measurement systems for RDE calibration and subsequent fleet validation** 16:20
Dr. Ing. C. Bernard (ETAS Engineering Tools)

- ◆ **Optimization of the energetic efficiency of oil lubricated high pressure pump by means of analytic models and testing** 16:40
Dr. Ing. A. Toriello (Centro Studi Componenti per Veicoli S.p.A.)

- ◆ **Robustness check of high pressure pump components against diesel deposits** 17:00
A. Gallo (Centro Studi Componenti per Veicoli S.p.A.)



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