

Modelway

Engineering company expert in innovative data-driven technologies for control, virtual sensing and modeling of complex systems



Speaker:

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Engineering Manager



- Founded as academic **spinoff of Politecnico di Torino**
- Experienced in applying **Machine-Learning methods** to solve technological problems in relevant **automotive, aerospace, mechatronic and energy applications**
- Support the technological transfer to the industrial world of innovative data driven solutions
- Provide **bespoke embedded systems** integrated with customers' value chain



MODELING



**VIRTUAL
SENSOR**



CONTROL

Data-Driven Technologies for IoT applications



AUTOMOTIVE

- Reliable estimate of critical on-board information
- Diagnostic, redundancy and recovery functionalities



INDUSTRY 4.0

- Robust prediction of complex physical behaviors
- Predictive maintenance & real-time optimization

Benefits

- 4x reduction of time&cost in design and calibration
- 10x improvement in accuracy

Environment Awareness

- Estimation of **pollutant concentrations**
- Prediction of critical behaviors in **structures and environmental systems**
- Estimation of **human behaviors**

Process Optimization

- In-line availability of **laboratory "accuracy level" information**
- **Physical sensor reduction**
- **Low cost redundancy & predictive maintenance** using the information available on the process

Decision-Making Support

- Estimate of critical information allowing **system control improvement**
- **Fast** development of data-driven **models of complex physical behaviors**
- **Systematic control design** from actual data of the system / process

INDUSTRIAL PARTNESHIP

- Penetrate the **Industry 4.0** market **with** the **Machine Learning application based on the process data**
- **Grow** the accuracy and reliability of the **industrial process information**

COFOUNDED R&D PROJECTS

- Develop **innovative IoT platforms** able to exploit the process data **using Machine Learning technologies**
- Use the data in order **to improve the human operator state of health** and comfort



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