

# SECOND EDITION OFF-HIGHWAY MACHINE MACHINE R-EVOLUTION JULY 12<sup>TH</sup>-15<sup>TH</sup> 2021 by TRENTINO SVILUPPO & POLO MECCATRONICA

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# INN4MECH 2021

# Inn4Mech, at its second edition, is organized by **Trentino Sviluppo & Polo Meccatronica**, Rovereto (Trentino, Italy), in partnership with some of the **most important industries of the mechatronic sector**.

**Inn4Mech** addresses industrial researchers, technicians, operation managers of large companies and SME's as well as academics, providing **highlights on technical novelties and future technologies**, and it is conceived as a matchmaking and **networking platform** for industrial **R&D projects**.

Each edition focuses on a different topic concerning Mechatronics and Industry 4.0 and hosts scientific and cutting-edge innovation speeches by primary academic and industrial speakers.

Due to the Covid-19 pandemic, the upcoming event will take place in a hybrid fashion: most of the speakers will be welcomed at the Exhibition & Congress Center of Riva del Garda, but attendees will participate online. The date is July 12th to 15th, 2021.

The central topic of **Inn4Mech 2021** will be **Off-Highway Machine R-Evolution** for automotive and off-road applications, focusing on **Future Workspaces**, **Circular Economy** and **Open Innovation**.

# AGENDA

Inn4Mech hosts three plenary sessions focused on **Future Workspaces**, **Circular Economy** and **Open Innovation**, followed by round tables with the possibility of Q&As for the speakers.

There will be technical workshops, each alternating academic studies and industrial experiences regarding Green Machines, New Materials and Processes, Smart Technologies, Smart Machines and Open Innovation.

Networking sessions will be organized to foster the establishment of R&D partnerships among participants. B2Bs and virtual exhibition stands with sponsors, partners and patrons will be available to attendees and their use encouraged.

# > Participation fees

3-days-package + day 4 € 300 + VAT (if applicable)

1-day-package + day 4 € 130 + VAT (if applicable)

EARLY BIRD until June 11th 2021 20% off

Inn4Mech will take place in the afternoon (Central European Time), and in the morning (Eastern Standard Time). The sessions will be registered and visible for registered participants in the morning hours (Central European Time) of the day after the live event.



> info@inn4mech.eu www.inn4mech.eu

Day I JULY 12<sup>th</sup>

#### CET 15.00 - 15.10 EST 9.00 - 9.10 am

> Welcome greetings by Trentino Sviluppo and Dana

#### CET 15.10 - 16.10 EST 9.10 - 10.10 am

## > Plenary session Future Workspaces

Speaker	Organisation	Title
Giulio Lanza	Altran-Capgemini, Italy capgemini-engineering.com/it/it/	People engagement in the Digital Transformation
Sergio Soares	CNH Industrial, Brazil www.cnhindustrial.com/en	The Sustainable Technology Transformation of Off-Highway Machines

#### CET 16.10 - 16.50 EST 10.10 - 10.50 am

Plenary round table: discussion with the keynote speakers and Q&A

with the special participation of Christophe Dominiak, Dana Inc.

#### CET 17.00 - 18.30 EST 11.00 am - 12.30 pm

## > Workshop Green Machines

moderated by Lorenzo Serrao, Dana Italia (Italy)

Speaker	Organisation	Title
Luigi Alberti	<b>University of Padova, Italy</b> www.unipd.it/en	The Green SEED project: Design of more-electric tractors
Davide Bagnara	MCI Management Center Innsbruck, Austria www.mci.edu/en	Electrification of heavy duty vehicles
Marcello Canova	The Ohio State University, USA www.osu.edu	Hybrid Energy Storage Systems: Emerging Technologies and Applications
Tatiana Minav	<b>Tampere University, Finland</b> www.tuni.fi/en	Review of Energy efficiency improvement of off-road machinery by means of zonal hydraulics
Andrea Vacca	Purdue University, USA www.purdue.edu	An energy efficient actuation technology for electrified off-road vehicles

#### CET 18.30 - open end EST 12.30 pm - open end

**>** B2B

#### CET 15.00 - 15.10 EST 9.00 - 9.10 am

> Welcome greetings by Trentino Sviluppo

#### CET 15.10 - 16.10 EST 9.10 - 10.10 am

## > Plenary session Circular Economy

Speaker	Organisation	Title
Silvia Gross	<b>University of Padova, Italy</b> www.unipd.it/en	Design and Manufacturing in a Circular Economy Framework
David Peck	TU Delft, Netherlands www.tudelft.nl/en/	

#### CET 16.10 - 16.50 EST 10.10 - 10.50 am

Plenary round table: discussion with the keynote speakers and Q&A

moderated by Giorgia Marino, Renewable Matter (Italy)

### CET 17.00 - 18.30 EST 11.00 am - 12.30 pm

# > Workshop New materials and processes

moderated by Paolo Bosetti, University of Trento (Italy)

Speaker	Organisation	Title
Nicola Battisti	<b>OPTOI, Italy</b> optoi.com/en/home	Smart Sensors in harsh environment, mobile vehicles: how can they offer more functionalities through integration, how can they be reliable and predict maintenances through smart algorithms
Michele Pinelli	<b>University of Ferrara, Italy</b> www.unife.it/it	The Efflics Project for the increasing use of eco-friendly fluids in volumetric machines
Sooky Winkler	Dana Inc., USA www.dana.com	
Nicholas Zanasi	<b>CNH Industrial, Italy</b> www.cnhindustrial.com/en	Additive Manufacturing application in Agricultural Machinery hydraulic systems – a redesign study

CET 18.30 - open end EST 12.30 pm - open end

**>** B2B

#### CET 15.00 - 15.10 EST 9.00 - 9.10 am

> Welcome greetings by Trentino Sviluppo

#### CET 15.10 - 16.10 EST 9.10 - 10.10 am

# > Plenary session Open Innovation

Speaker	Organisation	Title
Salvatore Majorana	<b>Kilometro Rosso, Italy</b> www.kilometrorosso.com/en/	Science Parks as Enablers of a Global Ecosystem
Andrea Pontremoli (tbc)	<b>Dallara, Italy</b> www.dallara.it/it/en	

#### CET 16.10 - 16.50 EST 10.10 - 10.50 am

# Plenary round table: discussion with the keynote speakers and Q&A

moderated by Lucia Chierchia, Gellify (Italy)

#### CET 17.00 - 20.00 EST 11.00 am - 2.00 pm

## > Workshop Smart machines and smart technologies

moderated by Stefano Fiorati, CNH Industrial (Italy) and Gaétan Bouzard, Siemens (Belgium)

Speaker	Organisation	Title
Gabriele Caiulo	Pure Power Control, Italy www.purepowercontrol.com/en/	Energy Management Strategies for Fuel Consumption Minimization of Parallel Hybrid Vehicles
Claudia Elisabetta Campanella	<b>CNH Industrial, Italy</b> www.cnhindustrial.com/en	Ergonomics and Virtual Reality on CNH agricultural tractors
Francesca Perino	Mathworks, Italy it.mathworks.com/	Artificial Intelligence for Agriculture
Alejandro Secades Rodríguez	MCI Management Center Innsbruck, Austria www.mci.edu/en/	On the Digital Representation of Heavy-Duty Vehicles: a case study and outlook
Andrea Gaiola	University of Modena and Reggio Emilia, Italy www.international.unimore.it	Modeling and Simulation of the Hydraulic Circuit of the Wheel Loader
Massimo Galbiati	Enginsoft, Italy www.enginsoft.com	E-Motors and E-Axles design by Simulation
Massimiliano Ruggeri	CNR - Consiglio Nazionale delle Ricerche, Italy www.cnr.it/en	Control System Architectures for Smart Agricultural Tractors from Functional Safety to "Farming as a service"
Henry Tanner	Romax Technology, United Kingdom romaxtech.com	Designing Electrified Off- Highway transmissions using a modified systems engineering "V" model

CET 20.00 - open end EST 2.00 pm - open end

#### CET 10.00 - 13.00

> Brokerage event Enterprise Europe Network

Special Networking Event for EEN members

CET 15.00 - 15.10 EST 9.00 - 9.10 am

> Welcome greetings by Trentino Sviluppo

CET 15.10 - 17.30 EST 9.10 - 11.30 am

 Workshop Open Innovation:
 The Mechatronic accelerators experience, with startups operating in the field of Open Innovation in Mechatronics

moderated by Alfredo Maglione, Optoi (Italy)

# Day I JULY 12th

CET 10.00 - 13.00

CET 15.00 - 15.10 EST 9.00 - 9.10 am

CET 15.10 - 15.40 EST 9.10 - 9.40 am

CET 15.40 - 16.10 EST 9.40 - 10.10 am

CET 16.10 - 16.50 EST 10.10 - 10.50 am

CET 17.00 - 18.30 EST 11.00 am - 12.30 pm

CET 18.30 - 20.00 EST 12.30 pm - 2.00 pm > Welcome greetings By Trentino Sviluppo & Dana

> Future Workspaces

**Plenary 1** Sergio Soares CNH Industrial (Brazil)

> **Plenary 2** Giulio Lanza Altran (Italy)

Plenary roundtable with keynote speakers and special guest Christophe Dominiak, Dana Inc.

> Workshop Green Machines

moderated by Lorenzo Serrao Dana (Italy) > Welcome greetings By Trentino Sviluppo

Day II

JULY 13th

Circular Economy

**Plenary 1** Silvia Gross University of Padova (Italy)

Plenary 2 David Peck TU Delft (Netherlands)

Plenary roundtable with keynote speakers, moderated by Giorgia Marino Renewable Matter (Italy)

Workshop New Materials and Processes

moderated by Paolo Bosetti University of Trento (Italy) Day III JULY 14th

> Welcome greetings By Trentino Sviluppo

> Open Innovation

**Plenary 1** Salvatore Majorana Kilometro Rosso (Italy)

**Plenary 2** Andrea Pontremoli (tbc) Dallara (Italy)

**Plenary roundtable** with keynote speakers, moderated by Lucia Chierchia Gellify (Italy)

> **Workshop** Smart Machines & Smart Technologies

moderated by Stefano Fiorati CNH Industrial (Italy) and Gaétan Bouzard Siemens (France)

# Day IV JULY 15th

Enterprise Europe Network Brokerage Event

Special networking event for EEN members

> Welcome greetings By Trentino Sviluppo

Workshop The Mechatronic Accelerator Experience, with startups operating in the field of Open Innovation in Mechatronics

> moderated by Alfredo Maglione, Optoi (Italy)



# MEDIA PARTNERSHIP

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