

**SECOND EDITION** 

# OFF-HIGHWAY MACHINE R-EVOLUTION

JULY 12TH-15TH 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 Julu 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 avai-lable 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 18th 2021 20% off

Book your seat: rivafc.onlinecongress.it/Inn4Mech2021

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.

CONTACTS

info@inn4mech.eu

### Day I JULY 12th

#### 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	Capgemini Engineering, 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.

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

### 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	University of Padova, Italy 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	Tampere University, Finland 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

# Day II JULY 13th

#### 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	University of Padova, Italy www.unipd.it/en	Design and Manufacturing in a Circular Economy Framework
David Peck	TU Delft, Netherlands www.tudelft.nl/en/	Circular Opportunities and Materials Challenges

### 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 partecipation of Giorgia Marino, Renewable Matter (Italy)

### Day II JULY 13<sup>th</sup>

### 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	OPTOI, Italy 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	University of Ferrara, Italy 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	Additive Manufacturing – Process, Structure and Properties
Nicholas Zanasi	CNH Industrial, Italy www.cnhindustrial.com/en	Additive Manufacturing application in Agricultural
Valeria Tirelli	AIDRO, Italy www.aidro.it	Machinery hydraulic systems – a redesign study
Thanos Tsakiris	CERTH, Greece www.iti.gr	Augmented Reality Technology for Personalised Maintenance Training

CET 18.30 - open end EST 12.30 pm - open end



# Day III JULY 14th

### 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	Kilometro Rosso, Italy www.kilometrorosso.com/en/	Science Parks as Enablers of Open Innovation in the Global Ecosystem of Mechatronics
Josep Miquel Piqué Huerta	Technova Barcelona, Spain www.technovabarcelona.org	Managing the dealflow of Eco- systems of Innovation in Industry 4.0

### 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 partecipation of Lucia Chierchia, Gellify (Italy)

# Day III JULY 14th

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

### > Workshop Smart machines

moderated by Enrico Sedoni, CNH Industrial (Italy)

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	CNH Industrial, Italy 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

### CET 18.30 - 20.00 EST 12.30 pm - 2.00 pm

### > Workshop Smart technologies

moderated by Gaétan Bouzard, Siemens (France)

Speaker	Organisation	Title
Marco Bietresato	Free University of Bozen, Italy www.unibz.it	The tractor of the future: a retrospective on the past and an analysis of the present in order to outline the architecture of the future
Andrea Gaiola	University of Modena and Reggio Emilia, Italy www.international.unimore.it	Modelling 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
Henry Tanner	Romax Technology, United Kingdom romaxtech.com	Designing Electrified Off-Highway transmissions using a modified systems engineering "V" model

# Day IV JULY 15th

### CET 9.00 - 13.00

**>** Brokerage event **Enterprise Europe Network** 

Special Networking Event for EEN members

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Welcome greetings by Trentino Sviluppo

#### CET 15.10 - 18.00 EST 9.10 - 11.00 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)

Speaker	Organisation
Alberto Gasperi	Industrio, Italy www.industrio.co
Roberto Santolamazza	<b>T2I, Italy</b> www.t2i.it
Jörg Schüler	HighTech Startbahn, Germany www.hightech-startbahn.com
Przemysław Zieliński	Krakow Technology Park, Poland www.kpt.krakow.pl/en

### CET 18.00 - 18.10 EST 11.00 - 11.10 am

Final remarks and closure of Inn4Mech 2021

## **PATRONAGES**



































### **MEDIA PARTNERSHIP**

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Polo Meccatronica Via Fortunato Zeni 8 38068 Rovereto (TN) Italy

info@inn4mech.eu www.inn4mech.eu