

cti symposium^{us}

AUTOMOTIVE • PROPULSION • SYSTEMS

15 – 16 May 2024, NOVI (MI), USA | CONGRESS & EXPO

CALL
FOR
PAPERS



www.drivetrain-symposium.world/us | #CTI_sym

CTI SYMPOSIUM USA THE EXPERT SUMMIT FOR A SUSTAINABLE FUTURE MOBILITY

Wanted: Your contribution to a sustainable mobility

Making mobility sustainable is a huge challenge – and the only way to overcome it is by working together and pooling our ideas. For automotive companies, the goals are twofold: to reduce CO₂ or carbon upstream and downstream by scope 1 to 3, and to stay competitive in the market while they do so.

From the battery to the wheels, via power electronics, e-motors and transmissions, your ideas can help to make it happen. In the next twenty years, Plugin Hybrids will also play an important role as we transition to a future powered 100% by renewables (BEV).

At the CTI Symposium USA 2024, the focus will be on propulsion systems for on- and off-road vehicles in categories ranging from light to heavy duty. If you have ideas or solutions that are relevant in this field, don't miss this opportunity to present them to a large audience of potential customers, peers and stakeholders.

We look forward to receiving your paper – and your contribution to a better and sustainable world!

Patrick Lindemann

President, E-mobility & Chassis Mechatronics
Americas, Schaeffler Group USA Inc.

Chairman CTI SYMPOSIUM USA

INTERNATIONAL DELEGATES,
EXHIBITORS & SPEAKERS

PLENARY SPEECHES

PANEL DISCUSSIONS

DEEP DIVE

Technical Sessions

ENTERTAINING FORMATS
WITH VALUABLE INSIGHTS

Latest Technology Lectures
Specialist Comments
Analysis

Active Audience Involvement
Suppliers Product Presentations
and many more

CTI RIDE & DRIVE

IMPRESSIONS 2023

20+
Countries



25h
of Content &
Networking



60+
Expert Lectures



12h+
Networking Hours



450+
Industry
Representatives



40+
Exhibitors



BE PART OF THIS #1 BUSINESS PLATFORM

PARTICIPATE AS SPEAKER

Experts of all development areas in the field of automotive propulsion systems for passenger cars and commercial vehicles, components like e-motors, electric/electronics, semiconductors, function integration, system engineering are invited to hand in a paper proposal for the CTI SYMPOSIUM USA 2024.

HOW TO HAND IN YOUR PAPER PROPOSAL

Paper proposals should be submitted via our online form at www.drivetrain-symposium.world/us/callforpapers

To help us assess your proposal, please make your topic description as precise, clear and succinct as possible. Be sure to include the objective, field of application, technology and method, and to explain the advantage over existing solutions. Do not include commonplace or well-known background information.

The following presentation documents are mandatory if your paper proposal is accepted for the program:

- Job history
- Presentation topic as continuous text written article (min. 8 pages)
- Presentation slides (formats and masters will be provided)
- Digital photo (color, high resolution, jpg)

A presentation takes about 20 minutes plus Q&A. Per presentation one speaker is invited to join the CTI SYMPOSIUM USA main days (15 & 16 May 2024) for free. Due to the broad range of topics multiple entries are possible.

In case of any questions do not hesitate to contact



Sylvia Zenzinger
Conference Director
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IMPORTANT DATES

Extended Deadline for
paper proposal submissions
1 November 2023

Information about
paper proposal evaluation results
Begin of February 2024

Publishing date of the program
February 2024

Deadline for
presentation material submission
Mid of April 2024

Main event days
lecture program, exhibition,
CTI ride & drive
15 & 16 May 2024

MAIN FOCUSES

MARKETS, REQUIREMENTS, STRATEGIES

- Automotive market development
- Strategies and scenarios
- Market specific regulations and customer requirements
- Sales and purchasing potential
- Ecological and legal constraints
- Consumer research
- Energy saving and new vehicle programmes
- Regulatory impacts
- Carbon footprint and life-cycle assessment

CHARGING INFRASTRUCTURE, HYDROGEN SUPPLY, E-FUELS

- Charging points: concepts & technologies
- Distribution and business models
- Hydrogen fuelling stations (HFS): concepts & technologies, distribution & business models
- Market specific energy mix and infrastructures
- Electricity generation, hydrogen production
- Governmental and legislative infrastructure programs
- E-fuels: production, efficiency, cost, outlook
- DC current

E-DRIVES, E-DRIVE TRANSMISSIONS

- BEV Drivetrains
- FCEV Drivetrains
- E-axes
- 400 V/800 V/48 V
- eAWDs
- E-drive transmission concepts:
 - Lay-shaft & coaxial
 - Single- & multi-speed transmissions
 - High-speed transmissions
 - Disconnect units
 - Park-locks

E-DRIVE COMPONENTS

- Electric motors:
 - Axial flux, radial flux machines
 - Motor winding technology
 - High-speed motors
 - Motor cooling technology
- Power electronics:
 - Si/SiC inverters
 - Integrated power electronics
- Ultra caps
- Sensors & Control

FCEV-DRIVE COMPONENTS

- Fuel cell system development
- Membrane & stack design
- Mobile hydrogen storage and tanks
- Auxiliary elements: filter, turbine, compressor, condenser, air cooler, valves, etc.

BATTERIES, BOARDNET

- Battery technologies:
 - Cell chemistries & cell formats
 - Battery cooling and safety
 - Battery management
- Battery lifetime, recycling and second life
- Fast-charging technologies & inductive charging
- Boardnet standardisation
- DC-DC Converter
- On-board charger

MAIN FOCUSES

ELECTRONICS, CONTROL UNITS, SENSORS

- Centralised vehicle control units, super-computers for vehicles
- Decentralised control architectures
- Microcontrollers (MCUs), processors & interfaces
- Transmission electronics, controllers
- Sensor & actuator technologies
- TCU software development
- Calibration
- Electronic and sensor integration

HEV POWER- & DRIVETRAINS

- DHT drivetrains (multimode, serial, power-split)
- Add-on hybridisation of DCT, AT, CVT, AMT
- PHEV, HV and 48 V HEVs
- REEVs
- Operating strategies, energy and thermal management
- Recuperation, energy recovery
- Torque vectoring
- Calibration
- Vibration damping

POWER- & DRIVETRAINS FOR COMMERCIAL VEHICLES

- CV transmission concepts
- BEV-, FCEV- & HEV-drivetrains for CV applications
- CV drive-cycles
- TCO optimisation

HEV COMPONENTS

- Launch devices and transmission shifting:
 - Clutch technologies
 - Torque converter
 - Actuator technology
 - Shift concepts
 - Shift comfort
 - Friction materials
- Mechanic, hydraulic and electric components:
 - Gearset, shafts and housing
 - Sealing and bearings
 - Electro mechanic actuation, hydraulics
 - Component efficiency
 - Lightweight measures
 - Loss reduction
 - E-motors for HEV application
 - Power electronics for HEV application
 - HEV bordnet solutions
- Component synergy between HEV, BEV and FCEV

TESTING, SIMULATION AND EVALUATION METHODS FOR TRANSMISSIONS POWER- & DRIVETRAINS

- Representative requirements
- Fatigue lifetime assessment
- Tools for virtual system development
- Software development
- Operation strategies
- Drivetrain calibration
- Acoustics
- Virtual testing
- Functional integration
- Control concepts
- Development methods and tools
- Drive-system & transmission synthesis
- Virtual drive system and TM development and testing
- Transmission and component testing
- Test facilities and standards
- Thermal management: efficiency optimisation
- Friction power prognosis
- Comfort and ergonomic simulation
- Test-rigs, representative testing methods



CTI RIDE & DRIVE | 15 & 16 MAY 2024

Experience the latest powertrain technologies up close at the CTI Ride & Drive parcours.

Enjoy a full-feature tech experience in series and demo vehicles – and deepen your understanding in dialog with specialist vehicle engineers.

Showcasing at the CTI Ride & Drive

Make a lasting impression on peers and potential clients – with a hands-on experience of your development work that adds a new dimension to your lecture or virtual presentation.

For automobile manufacturers, system and component suppliers, showing a dedicated vehicle at the CTI Ride & Drive parcours is the ideal way to make their vehicle tech and applications stand out.

For questions contact
stephanie.segers@car-training-institute.com

Find more details on our website



CTI SYMPOSIUM EXPO

CTI SYMPOSIUM USA DRIVES YOUR BUSINESS FORWARD

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CTI SYMPOSIA bring together your target group. SPONSORING at our event and participating in the accompanying **EXPO** provides the perfect setting to show your competence, connect with decision makers and increase your corporate awareness in the industry.

Through customized partner packages we are able to expand your recognition before, during and after the event.

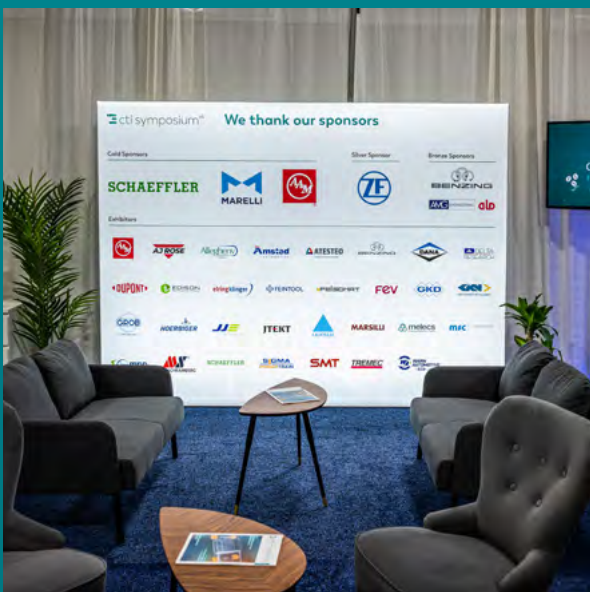
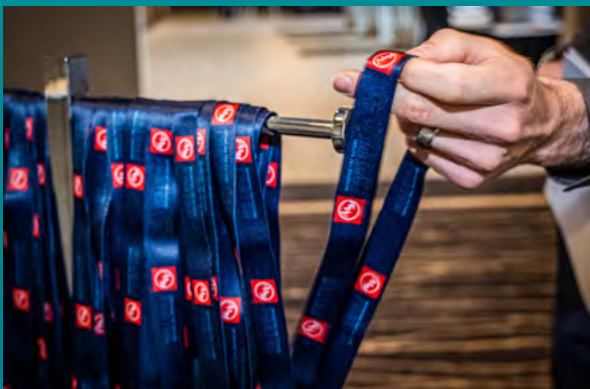
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