

PRESS RELEASE



For Immediate Release

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U.S. Army Seeks Key Engagements at SAE World Congress

- *Guided by our 30-Year Strategy, ground vehicle technologies being developed at the U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC) are fundamentally changing how the Army of 2025 will fight and win in battle.*
- *Collaboration with industry is vital to our mission. Utilizing a variety of arrangements, industry can leverage critical Army capabilities, facilities and the expertise of our highly skilled workforce for mutual benefit.*
- *13 U.S. Army TARDEC personnel will be on-site presenting Technical Papers, conducting peer reviews and participating in various sessions and committees during the SAE World Congress, and will be available for key collaborative discussions and media interviews. (see topics below)*

U.S. ARMY DETROIT ARSENAL, WARREN, MI – Collaborating with non-traditional industry partners builds a bench of science, technology and engineering across the Army, industry and acquisition community that delivers innovative solutions. Key engagements with industry are vital to TARDEC's ability to execute its mission and strategy. These engagements help TARDEC engineers provide unprecedented capabilities and value to the warfighter.

The ever-changing strategic environment requires us to develop integrated technologies that transcend multiple platforms. TARDEC's systems engineers develop, integrate and sustain advanced manned and autonomy-enabled ground system capabilities for the warfighter. The long-term goal — a leaner, more capable, expeditionary force that maintains overmatch over potential adversaries.

Some of the Army's brightest automotive engineers are presenting Technical Papers, conducting peer reviews, and participating in various sessions and committees at the SAE 2014 World Congress. They will be available for key collaborative discussions and media interviews. If you would like to engage with TARDEC, drop off your business card with our partners at the Michigan Economic Development Corporation (MEDC) Booth #1342 and we will contact you.



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TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

TARDEC attendees and topics presented include:

- Dr. David Gorsich, Chief Scientist
 - *Flexible Design and Operation of a Smart Charging Microgrid*
 - *New Computational Framework for the Treatment of Joint Constraints and Connectivity Conditions in Finite Element/Multibody System Algorithms*
- Igor Baseski
 - *A New Metamodeling Approach for Time-Dependent Reliability of Dynamic Systems with Random Parameters Excited by Input Random Processes*
- Matthew Castainer
 - *Flexible Design and Operation of a Smart Charging Microgrid*
 - *Enhancing Decision Topology Assessment in Engineering Design*
- Jill Goryca
 - *Robust Semi-active Ride Control Under a Stochastic Excitation*
- Sebastian Karwaczynski
 - *Under-Body Blast Mitigation: Stand-Alone Seat Safety Activation*
- Michael Letherwood
 - *New Computational Framework for the Treatment of Joint Constraints and Connectivity Conditions in Finite Element/Multibody System Algorithms*
- Eric Sattler
 - *Experimental Validation and Combustion Modeling of a JP-8 Surrogate in a Single Cylinder Diesel Engine*
 - *Role of Volatility in the Development of JP-8 Surrogates for Diesel Engine Application*
- Peter Schihl
 - *Experimental Validation and Combustion Modeling of a JP-8 Surrogate in a single Cylinder Diesel Engine*
- Jaisankar Ramalingam
 - *Assessment of the Accuracy of Certain Reduced Order Models Used in the Prediction of Occupant Injury during Under-body Blast Events*
- Annette Skowronska
 - *Flexible Design and Operation of a Smart Charging Microgrid*
- Ravi Thyagarajan
 - *Assessment of the Accuracy of Certain Reduced Order Models used in the Prediction of Occupant Injury During Under-body Blast Events*
- Paramsothy Jayakumar
 - *New Computational Framework for the Treatment of Joint Constraints and Connectivity Conditions in Finite Element/Multibody System Algorithms*
- Amadeep Singh
 - *Robust Semi-active Ride Control under a Stochastic Excitation*

Caption: Bottom of Image: TARDEC's Reconfigurable N-Post Motion Based Simulator conducts a durability and performance test on a Stryker vehicle. Vertical motion and force inputs are provided to reproduce dynamic field operating conditions. This realistic "fatigue testing" under controlled laboratory conditions allows TARDEC systems engineers to integrate new mobility technology to enhance Soldier ride quality and vehicle battlefield maneuverability (top of image).

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ABOUT TARDEC

Headquartered at the U.S. Army Detroit Arsenal in Warren, MI, TARDEC is a major research, development and engineering center for the Army Materiel Command's Research, Development and Engineering Command, and is an enterprise partner in the TACOM Life Cycle Management Command.

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