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Papers

Dearborn, Michigan, USA
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Global Powertrain Congress 2016
 September 28 - 29, 2016
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Ford Conference & Event Center
 Dearborn, MI
 On-Site Registration Hours: 8:00 am - 9:30 am
 Exhibit hours: Sep. 28, 10:00 am - 7:00 pm

Wednesday, September 28, 2016

AM Session	Plenary & Keynote: Vehicle Lightweighting & Fuel Economy Session Chair: Rob Seabolt Director Fiat Chrysler Automobiles	PM Session	BIW Introductions Session Chair: Bob Muzichuk Director General Motors
Time	Grand Hall	Time	Grand Hall
9:00 am	Welcome & Introduction Rob Seabolt Director <i>Fiat Chrysler Automobiles</i>	1:30 pm	2017 Chrysler Pacifica Jessica LaFond Chief Engineer Jeff Tibbenham Senior Manager <i>Fiat Chrysler Automobiles</i>
9:15 am	Phil Jansen Vice President – Systems & Components Engineering <i>Fiat Chrysler Automobiles</i>	2:30 pm	2017 Honda Ridgeline Steve Behm Senior Engineer <i>Honda</i>
9:40 am	E. Judy Brunson Head of eMobility, High Voltage Systems, & Quality for the Powertrain & eDrive Division <i>Mercedes Benz</i>	3:30 pm	Break in Exhibit Hall
10:05 am	Ali Jammoul, PhD Global Director, Body Exterior & Safety <i>Ford</i>	4:00 pm	2017 F250 Super Cab Colleen Hoffman Supervisor <i>Ford</i>
10:30 am	Break in Exhibit Hall		
10:55 am	Brad Peterson Director Sales & Marketing - Automotive, Automotive <i>Novelis</i>	5:00 pm	2017 Buick LaCrosse Terry Swartzell System Architect <i>General Motors</i>
11:20 am	Bernhard Hoffmann Vice President, Engineering & Product Development <i>United States Steel Corporation</i>	6:00 pm	BIW, Vehicle and Exhibit Walkthrough and Reception in Gallery Reception Sponsored By:  
11:45 am	Charlie Klein Executive Director, Global CO2 Strategy, Mass and Aerodynamics <i>General Motors</i>		
12:10 pm	Q&A Panel Discussion	7:00 pm	Adjournment
12:35 pm	Session Adjourned & Lunch in Gallery		

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The Program Committee and Board of Directors reserves the right to amend this program without any notice.

Thursday, September 29, 2016

AM Session	Advanced Manufacturing Engineering – FAB Technology & Processes Session Co-Chairs: Changqing Du, PhD Manager, Fiat Chrysler Automobiles Jim Evangelista Director, Shiloh Industries Hokook Lee, PhD General Manager, POSCO	AM Session	Materials Complementing BIW Design & Engineering Session Co-Chairs: Rainer Kossak, PhD Director, Novellis Pat Shafer Manager/Principal Engineer of Underbody Design, Honda Warren Parsons, Chief Architect, AVD, General Motors Mike Davenport, Director, US Steel
Time	Room 103	Time	Room 105
8:30 am	Aesthetic Defect Prediction and Correction in Stamping Applications Yang Hu, PhD, Kaiping Li, PhD <i>Fiat Chrysler Automobiles.....N/A</i>	8:30 am	AK Steel's Development of AHSS Steel Grades for Body Structures and Their Applications Jonathan Powers, Grant Thomas, Amrinder Gill, Ed Case <i>AK Steel..... 52</i>
9:00 am	Dimensional Study of Pierced Hole Using Punch with a Conical Tip Guobiao Yang, PhD, Tian Bai, Wan Xu, Junrui Li, Lianxiang Yang <i>Oakland University</i> Dajun Zhou, PhD, Changqing Du, PhD <i>Fiat Chrysler Automobiles US LLC..... N/A</i>	9:00 am	Challenges in Automotive Applications Utilizing Mg sheet Min Hong Seo, PhD, Kanghai Ahn, PhD, Yeon Sik Kang, PhD, Kang-Yul Seo, PhD Hokook Lee, PhD <i>POSCO..... 58</i>
9:30 am	Stamping Lubricants: Separating Fact from Fiction Cliff Hoschouer <i>Shiloh Industries</i> Frank Kenny <i>Irmco..... N/A</i>	9:30 am	Toughened Body Shop Adhesives Daniel Sophiea, PhD, Andreas Lutz, PhD, Benjamin Haag, PhD <i>Dow Automotive.....62</i>
10:00 am	Flash® Bainite: Room Temp Stamping 1600MPa Structural and Energy Absorbing Components to OT/1T Bend Radii Gary Cola Jr, Tom Stautz <i>Flash Bainite..... 1</i>	10:00 am	New Zn Multistep PHS K. Isaksson, M. Jonsson, D. Berglund <i>GESTAMP.....66</i>
10:30 am	Break in Exhibit Hall	10:30 am	Break in Exhibit Hall
11:00 am	Intelligent Servo-Controlled Forming Process for Lightweight Structures Hyunok Kim, PhD <i>EWI 21</i>	11:00 am	Performance and Use Characteristics of an Extremely Formable 3rd Generation AHSS Tad Machrowicz <i>The NanoSteel Company.....N/A</i>
11:30 am	Advanced High-Strength Steels: Deciphering Local and Global Formability Brandon Hance, PhD, Michael Davenport, PE <i>United States Steel Corporation.....31</i>	11:30 am	S-in Motion® Mid-size Chassis Elie Gibeau, PhD, Kevin Eldridge <i>ArcelorMittal75</i>
12:00 pm	An Automatic Die Face Design System in Early Tool Process Feasibility in Sheet Metal Forming Rodrigue Narainen, PhD, Harald Porzner <i>ESI Group..... 41</i>	12:00 pm	Forming Limit and Fracture Strain Characterizations of USS 980GEN3 using Digital Image Correlation Lu Huang, PhD <i>United States Steel Cooperation.....N/A</i>
12:30 pm	Session Adjourned & Lunch in Gallery	12:30 pm	Session Adjourned & Lunch in Gallery

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Thursday, September 29, 2016

PM Session	Materials & Process Optimization for BIWs Session Co-Chairs: Shawn Morgans Manager, Ford Paul Schurter <i>ArcelorMittal</i> Ram Iyer <i>ArcelorMittal</i> Jonathan Powers Manager <i>AK Steel</i>	PM Session	Advanced Assembly Processes Session Co-Chairs: Tim Canning Senior Manager, <i>General Motors</i> P.K. Rastogi, PhD Principal Engineer, <i>AK Steel</i> Kevin Schnipke Development Technical Expert, <i>Honda</i> Gagan Tandon Director, <i>AMTB</i>
Time	Room 103	Time	Room 105
1:30 pm	Laser Blanking: Competitive and Production Ready Jay Finn <i>LaserCoil Technologies LLC.....N/A</i>	1:30 pm	The Flexible Assembly Systems for Lightweight Vehicle Constructions Giacomo Gandini <i>COMAU.....N/A</i>
2:00 pm	Advanced Cold Forming Methods With AHSS Increase Ease of Design in Car Body Structures Thomas Müller, Lars Troive <i>SSAB.....84</i>	2:00 pm	Laser Joining of Dissimilar and Hybrid Materials for Vehicle Design ASP Pierson Cheng <i>TRUMPF.....N/A</i>
2:30 pm	Robustness of Hot Stamped Laser Welded Blanks Gagan Tandon, Nachiket Gokhale <i>ArcelorMittal Tailored Blanks.....94</i>	2:30 pm	Novelis Advanced Aluminum Alloys for High Speed Remote Laser Welding Rainer Kossak, PhD <i>Novelis.....N/A</i>
3:00 pm	Break in Exhibit Hall	3:00 pm	Break in Exhibit Hall
3:30 pm	Laser Butt Welding of AlSi coated Press Hardened Steels – New Developments and Applications Francis Schmit, Sadok Gaied, PhD <i>ArcelorMittal</i> Marius-Ioan Rotarescu, PhD, Gagan Tandon <i>ArcelorMittal Tailored Blanks.....101</i>	3:30 pm	Impact Spot Welding of Dual Phase 590 Steel to Aluminum Alloy 5052 by Vaporizing Foil Actuator Yu Mao, Anupam Vivek, PhD, Geoffrey Taber, Angshuman Kapil, Glenn Daehn, PhD <i>The Ohio State University.....122</i>
4:00 pm	Technical Advances in Laser Blanking Manuel Hunger <i>Schuler Group.....112</i>	4:00 pm	Laser Seam Stepper Welding: A New Tool Takes on Conventional Welding Processes Michael Wiener <i>IPG Photonics.....137</i>
4:30 pm	Fundamentals of Laser Metal Fusion and Potential Applications in the Automotive Industry April Cooke, PhD <i>TRUMPF.....117</i>	4:30 pm	Welding Issues and Solutions for Advanced High-Strength Steels Menachem Kimchi <i>WorldAutoSteel.....142</i>
		5:00 pm	Diode Lasers in Automotive BIW Joining and Heat Treatment Applications Tobias Stittgen <i>Laserline.....149</i>
5:00 pm	Session Adjourned	5:30 pm	Session Adjourned

Thursday, September 29, 2016

AM Session	Efficient Propulsion Solutions for Sustainable Mobility Part I Session Chair: Hank Sullivan Director - Analysis, Validation, and Systems Test, Clean Air Division <i>Tenneco</i>	PM Session	Efficient Propulsion Solutions for Sustainable Mobility Part II Session Chair: Oliver Gross Technical Fellow Energy Storage Systems, <i>Fiat Chrysler Automobiles</i>
Time	Room 106	Time	Room 106
9:00 am	Welcome & Introduction Hank Sullivan <i>Tenneco.....N/A</i>	1:30 pm	Thermodynamic Implications of Emissions Constraints on SI Combustion Martin Wissink, PhD <i>Oak Ridge National LaboratoryN/A</i>
9:15 am	Co-Optimization of Fuel & Engine Robert Wagner, PhD <i>Oak Ridge National LaboratoryN/A</i>	2:00 pm	Advanced Electrochemical Energy Storage Systems for Vehicle Electrification Mei Cai, PhD <i>General MotorsN/A</i>
9:45 am	Sustainable Mobility: Hybrid Solar Vehicle for Better Fuel Economy and Less Well-to-Wheels Greenhouse Gas Emissions Mahmoud Abdelhamid, PhD <i>University of CaliforniaN/A</i>	2:30 pm	Battery Propulsion Technology Trends Oliver Gross <i>Fiat Chrysler AutomobilesN/A</i>
		3:00 pm	Advances in Sustainable Bipolar Lead Battery Solutions for Start-Stop Applications Ed Shaffer <i>Advanced Battery ConceptsN/A</i>
10:15 am	Break in Exhibit Hall	3:30 pm	Break in Exhibit Hall
10:45 am	Lightweight Design for Vehicle Applications Zhigang Wei, Ryan Barr, Sarat Das, Dennis Mellon, Bradley Fingland, Tony Quan, and Adam Kotrba <i>Tenneco</i> Hong-Tae Kang, Xiao Wu <i>University of Michigan.....N/A</i>	4:00 pm	Advances in Diesel Exhaust Aftertreatment Catalyst Technologies Krishna Kamasamudram, PhD <i>CumminsN/A</i>
11:15 am	Exhaust After Treatment Optimization: CFD to Engine Hank Sullivan <i>TennecoN/A</i>	4:30 pm	Recent Vehicle Powertrain Reliability Surveys and Data Analysis Zhigang Wei, Litang Gao <i>Tenneco.....N/A</i>
11:45 am	Thermomechanical Fatigue Durability of Powertrain Components Carlos Engler-Pinto Jr., Katherine Avery, William Lai, Xuming Su <i>Ford</i> Zhigang Wei, Limin Luo, Tony Quan, Bob Rebandt <i>TennecoN/A</i>	5:00 pm	Meeting 2025 CAFÉ with the Opposed Piston Engine Nishit Nagar <i>Achates PowerN/A</i>
12:15 pm	Session Adjourned & Lunch in Gallery	5:30 pm	Session Adjourned

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