Wednesday, Sept. 9, 2015

7:00–8:15 a.m. — REGISTRATION / BREAKFAST / OPENING OF EXHIBITS - Diamond Ballroom
JUDGING FOR STUDENT POSTER COMPETITION & PARTS SHOWCASE - Hall C

8:15–8:45 — OPENING REMARKS (Including Best Paper Awards & Student Scholarship Announcements)
Dale Brosius & Fred Deans, 2015 SPE ACCE Co-Chairs - Diamond Ballroom

8:45–9:00 — EXHIBITS - Hall C

	IN CRYSTAL/SAPPHIRE/RUBY	IN OPAL/GARNET	IN EMERALD/AMETHYST
	SESSION 1: ADDITIVE MANUFACTURING & 3D PRINTING - PART 1 OF 2: *Additive Manufacturing*	**SESSION 2: VIRTUAL PROTOTYPING & TESTING - PART 1 OF 5:** *Impact Testing*	**SESSION 3: NANOCOMPOSITES - PART 1 OF 3:** *Cellulose & Nanocellulose*
9:00–9:30	James Orrock, *Stratasys Inc.* Additive Manufacturing Composite Materials for Automotive Product Development	Loleï Khoun, *National Research Council Canada (NRCC)* Impact Behaviour of Thin Carbon Fibre Reinforced Composites Components for Automotive Applications	Medhi Tajvidi, *University of Maine* Transparent Composite Films of All-Cellulose and Cellulose-Polyvinyl Alcohol Nanocomposites: Effect of Relative Humidity and Temperature on Mechanical Performance
9:30–10:00	Ellen Lee, *Ford Motor Co.* New Materials and Processes for Additive Manufacturing for Automotive Applications	Robert Yancey, *Altair Engineering* Designing Composite Structures for Impact Performance – What Can We Learn from the Aerospace Industry?	Kim Nelson, *American Process Inc.* Lightweighting Vehicles with BioPlus™ Nanocelluose Composites
10:00–10:30	Vlastimil Kunc, *Oak Ridge National Laboratory* Advances and Challenges in Large Scale Polymer Additive Manufacturing	Stuart Brown, *Veryst Engineering, LLC* Impact Testing of Fiber-Reinforced Thermoplastics	Shokoofeh Ghasemi, *University of Maine* Cellulose Nanoparticle Reinforced Polyurethane Foams
10:30–11:00	BREAK / EXHIBITS - Hall C		
	SESSION 4: ADDITIVE MANUFACTURING & 3D PRINTING - PART 2 OF 2: *3D Printing*	**SESSION 5: VIRTUAL PROTOTYPING & TESTING - PART 2 OF 5:** *Fatigue, Impact & Crash Simulation*	**SESSION 6: NANOCOMPOSITES - PART 2 OF 3:** *Nanostructures & Nanofillers*
11:00–11:30	Bryan Crutchfield, *Materialise NV* 3D Printing: A Game Changer for Manufacturing	Dustin Souza, *e-Xstream engineering* Predicting Post Failure Behavior of Woven Made Parts for Crash Design Needs	Patrick O'Connor, *Applied NanoStructured Solutions* Using Carbon Nanostuctures to Fabricate Multifunctional Composites & Polymers
11:30 a.m.–12:00 p.m.	Umesh Gandhi, *Toyota Research Institute North America* Designing of Lattice Structure for 3D Printing	Sunil Makhe, *Eaton Technologies Pvt. Ltd.* Fatigue Behavior and Modeling of Short Fiber Reinforced Polymer Composites	Thomas Köhler, *Institut für Textiltechnik (ITA) der RWTH Aachen University* Technological and Economical Assessment of Nanoscale Fillers in Fibre Reinforced Thermoplastic Composites
12:00–12:30	Mike Lee, *AlphaStar Corp.* The Impact of Fiber Content & Effect of Defects on 3D Printing Car Additive Manufacturing Processes		Jennifer Zhu, *Ford Motor Co.* Bio-Based Polyamides Reinforced with Nanofillers — Processing & Characterization
12:30–1:30	LUNCH, STUDENT POSTERS, LARGE-PART DISPLAY - Hall C		
	SESSION 7: ADVANCES IN THERMOSET COMPOSITES - PART 1 OF 2:	**SESSION 8: VIRTUAL PROTOTYPING & TESTING - PART 3 OF 5:** *Draping & Joining Simulation*	**SESSION 9: NANOCOMPOSITES PART 3 OF 3:** *Nanosilica & Nano Trends*
1:30–2:00	Michael Sumner, *Ashland, Inc.* Development of Ultra Low Density Class A SMC	Ian Swentek, *Fraunhofer Project Centre for Composite Research at the Western University* Investigation on Fiber Preforming with Draping Simulation	Kunal Kumar, *Evonik Corp.* Damage Tolerant Automotive Composites with Nanosilica Modifications
2:00–2:30	Markus Downey, *Michigan State University* ***2014-2015 ACCE scholarship winner*** Toughening of Aromatic Epoxy Polymers via Aliphatic Epoxy Monomer Addition: Optimized Fiber-Reinforced Polymer Composites for Lightweighting	Steffen Ropers, *Volkswagen Group Research* Material Characterization and Draping Simulation of Thermoplastic Prepregs: The Influence of Temperature	James Nelson, *3M* Nanosilica-Modified Epoxy Resins for Use in Filament-Wound Drive Shaft Applications
2:30–3:00		Yuyang Song, *Toyota Research Institute North America* Finite Element Modeling for Adhesive Joint of Dissimilar Materials	Mark Shaw, *UltraTech International, Inc.* New Nanotechnology Initiatives in the Automotive Market
3:00–3:30			
	BREAK / EXHIBITS - Hall C		

3:30-4:00 — KEYNOTE 1 – Diamond Ballroom: Anthony Schiavo, Research Associate, Lux Research Inc. Carbon Fiber 2.0: Roadmap for Growth to 2020 and Beyond

4:00-5:15 — KEYNOTE 2 – Diamond Ballroom: Institute for Advanced Composites Manufacturing Innovation (IACMI): A Disruptive Moment in Automotive History
Dr. Craig Blue, CEO, *IACMI* / **Dr. Larry Drzal**, *IACMI Director - Vehicles Technology Area, Michigan State University* /
Dr. Byron Pipes, *IACMI Director - Modeling and Simulation Technology Area, Pursue University* /
Dr. Brian Rice, *IACMI Director - Compressed Gas Storage Technology Area, University of Dayton Research Institute* /
Cliff Eberle, *IACMI Director - Materials and Process Technology Area, Oak Ridge National Laboratory*

5:15–5:30 — RECEPTION SPONSOR ADDRESS

5:30–7:30 — COCKTAIL RECEPTION / EXHIBITS - Hall C / Fireside Room Sponsored by Reception Sponsor #1

7:30 — CONFERENCE ADJORNS FOR THE DAY

Thursday, Sept. 10, 2015

7:00-8:00 a.m. REGISTRATION / BREAKFAST / OPENING OF EXHIBITS & JUDGING FOR PARTS COMPETITION - Exhibit Hall C

	IN CRYSTAL/SAPPHIRE/RUBY	IN OPAL/GARNET	IN EMERALD/AMETHYST
	SESSION 10: OPPORTUNITIES & CHALLENGES WITH CARBON COMPOSITES - PART 1 OF 2: *New Prepreg Technologies*	**SESSION 11: VIRTUAL PROTOTYPING & TESTING - PART 4 OF 5:** *Fiber Orientation*	**SESSION 12: ADVANCES IN THERMOSET COMPOSITES - PART 2 OF 2:**
8:00–8:30		Gregory Lambert, *Virginia Polytechnic Institute and State Univ.* Assessing the Performance of the Bead-Rod Model for Simulating Long Fiber Orientation in Basic Flows	Michael Gruskiewicz *A. Schulman - Engineered Composites* A New Approach to SMC Weight Reduction
8:30–9:00	Michael Karcher, *Fraunhofer Institute for Chemical Technology* Evaluation of a New "InlinePrepreg" Process Approach to Established Processes for the Manufacturing of Structural Components out of Carbon Fibre Reinforced Plastics	Sebastian Goris, *Univ. of Wisconsin-Madison* **2014-2015 ACCE scholarship winner** Fiber Orientation Measurements Using a Novel Image Processing Algorithm for Micro-Computed Tomography Scans	Marcel Bruijn, *Huntsman Polyurethanes* Latest Generation of Polyurethane Resins with Superior Process Control for Fast-Cycle Manufacturing of Structural Composites
9:00–9:30	Max Thouin, *Mitsubishi Rayon Carbon Fiber & Composites* Automated Solution to High Volume Manufacturing of Continuous Fiber Parts Using Low-Cost PCM TowPrepreg	Dhanendra Kumar Nagwanshi, *SABIC* Plastic Hybrid Solutions in Truck Body-in-White Reinforcements and in Front Underrun Protection	David Evers, *HEXION Inc.* A Life Cycle Assessment-Based Comparison of Engineering Thermoset and Aluminum in an Automotive Under-the-Hood Application
9:30–10:00	BREAK / EXHIBITS - Hall C		
	SESSION 13: OPPORTUNITIES & CHALLENGES WITH CARBON COMPOSITES - PART 2 OF 2: *Preforming, Woven Composites, & Lightweighting*	**SESSION 14: VIRTUAL PROTOTYPING & TESTING - PART 5 OF 5:** *Anisotrophy Modeling*	**SESSION 15: ADVANCES IN THERMOPLASTIC COMPOSITES - PART 1 OF 1**
10:00–10:30	Markus Thiessen, *Compositence GmbH* Preforming 2.0 – Leap Innovations for Automotive by Compositence	Roger Assaker, *e-Xstream engineering* Fiber Reinforced Plastic Durability: Nonlinear Multi-Scale Modeling for Structural Part Life Predictions	Yankai Yang, *Hanwha Azdel Inc.* Development of Light Weight Reinforced Thermoplastic with Improved Stone Impingement Resistance for Automotive Underbody Application
10:30–11:00	Jon Goering, *Albany Engineered Composites* Applications of 3D Woven Composites for Energy Absorption	Doug Kenik, *AutoDesk, Inc.* Bridging the Gap: As-Manufactured Structural Simulation of Injection Molded Plastics	Eric Wollan, *PlastiComp, Inc.* Hybrid Long Fiber Thermoplastic Composites: A Perfect Blend of Performance and Cost
11:00–11:30	Ankur Bhosale, *BASF Corp.* MMLV Lightweight Powertrain – Carbon Fiber Structural Components	Roger Assaker, *e-Xstream engineering* Anisotropic Damping Behavior of Reinforced Plastic Parts for NVH Simulations	Cécile Demain, *Solvay* Virtual Design Concepts & Innovative Process Technologies to Enable Thermoplastic Composites Usage in Medium-Duty Truck Bulkhead
11:30 a.m. –12:00 p.m.	Alain Leroy, *HEXION Inc.* Advancements in Epoxy Technologies Toward Enabling Automotive Light-Weighting and High Build Rates	Don Robbins, *Autodesk, Inc.* Progressive Failure Simulation of As-Manufactured Short Fiber Filled Injection Molded Parts: Validation for Complex Geometries and Combined Load Conditions	Jacob Anderson, *PPG Industries* Effect of Processing Technique on the Mechanical Performance of Glass Fiber Reinforced Thermoplastics
12:00-1:00	LUNCH, STUDENT POSTER COMPETITION WINNERS, LARGE-PART DISPLAY HALL C		
1:00–1:30	KEYNOTE 3 – Diamond Ballroom: Deborah Mielewski, Senior Technical Leader of Sustainable Materials and Plastics Research, Ford Motor Co. Owning the Future: Sustainable Materials Research, Development & Implementation at Ford		
1:30-2:00	KEYNOTE 4 – Diamond Ballroom: Stefan Stanglmaier, Technologieentwicklung CFK Material- und Prozessabsicherung, BMW Group Mass Production of CFRP in Automotive Applications – Potential and Challenges in Implementing Local Reinforcements		
	SESSION 16: ENABLING TECHNOLOGIES - PART 1 OF 3: *New Manufacturing Strategies*	**SESSION 17: SUSTAINABLE COMPOSITES - PART 1 OF 2:** *Reinforcements*	**SESSION 18: ADVANCES IN REINFORCEMENT TECHNOLOGIES - PART 1 OF 1**
2:00–2:30	Conchúr Ó Brádaigh, *ÉireComposites Teo.* Manufacture of Large Composite Structures Using High Temperature Integrally-Heated Composite Tooling	Amy Langhorst, *Ford Motor Co.* Selective Dispersion and Compatibilizing Effect of Cellulose Fillers in Polar-Nonpolar Hybrid System	Hendrik Mainka, *Volkswagen AG* Raman and X-ray Photoelectron Spectroscopy: Useful Tools for the Chemical Characterization of the Conversion Process of Lignin to Carbon Fiber
2:30–3:00	Alexandre Hamlyn, *Coriolis Composites SAS* Automated Manufacturing for Mass Production and Low-Cost Materials - Latest Works from Coriolis Composites	Niloofar Yousefi, *University of Maine* All-Renewable Paper Nano-Laminates for Automotive Applications	Christopher Pastore, *Philadelphia University* Lightweighting Composites Through Selective Fiber Placement
3:00–3:30	Andrew Rypkema, *Pinette Emidecau (PEI/Pinette USA)* QSP: A Breakthrough Approach for Automating (the Manufacture of/Manufacturing of) High Performance Thermoplastic Composites	Esra Kiziltas, *Ford Motor Co.* Cellulose Fiber Reinforced Recycled Nylon & Recycled Polypropylene Composites for Automotive Applications	
3:30–4:00	BREAK / EXHIBITS - Hall C		
4:00-5:30	PANEL DISCUSSION: Carbon Steel to Carbon Composites – Can the Existing Automotive Infrastructure be Leveraged to meet Lightweighting Targets? Moderator: Jan-Anders Månson, Ecole Polytechnique Fédérale de Lausanne (EPFL) Panelists: To be Announced		
5:30–5:45	RECEPTION SPONSOR ADDRESS		
5:45–7:30	COCKTAIL RECEPTION / EXHIBITS - Hall C Sponsored by Reception Sponsor #2		
7:30	CONFERENCE ADJORNS FOR THE DAY		

Friday, Sept. 11, 2015

	IN CRYSTAL/SAPPHIRE/RUBY	IN OPAL/GARNET	IN EMERALD/AMETHYST
7:00–8:00 a.m.	REGISTRATION / BREAKFAST / OPENING OF EXHIBITS - Hall C		
	SESSION 19: ENABLING TECHNOLOGIES - PART 2 OF 3: *Advances in RTM Technology*	**SESSION 20: SUSTAINABLE COMPOSITES - PART 2 OF 2:** *Polymers & Trends*	**SESSION 21: TUTORIALS - PART 2 OF 2:** *Adhesive Bonding of CFRP Composites*
8:00–8:30	Tobias Jansen, *Hennecke GmbH* The HP-RTM Technology – Actual Status and New Developments	Brian Dawson, *Full Cycle Bioplastics* Bioplastics 2.0: Low-Cost High-Performance Polymers from Organic Waste	Louis Dorworth, *Abaris Training Resources, Inc.* Adhesive Bonding of CFRP Composites: Practices and Principles - Part 1 of 4
8:30–9:00	Philipp Rosenberg, *Fraunhofer Institute for Chemical Technology* Comparison of Large-Scale Manufacturing RTM Technologies Based on Epoxy, Polyurethane and Cast-Polyamide Matrix Systems	Henning Karbstein, *BASF Corp.* Natural Fiber Composites with Acrodur®: Opportunities and Challenges with Thermoset and Thermoplastic Binders	Louis Dorworth, *Abaris Training Resources, Inc.* Adhesive Bonding of CFRP Composites: Practices and Principles - Part 2 of 4
9:00–9:30	Ian Swentek, *Fraunhofer Project Centre for Composite Research at the Western University* Impact of HP-RTM Process Parameters on Mechanical Properties using Epoxy and Polyurethane	Andrea Birch, *Ford Motor Co. / University of Waterloo* Development of Cost Effective and Sustainable Polyamide Blends for Automotive Applications	Louis Dorworth, *Abaris Training Resources, Inc.* Adhesive Bonding of CFRP Composites: Practices and Principles - Part 3 of 4
9:30–10:00	Erich Fries, *KraussMaffei Technologies GmbH* Light Weight Technologies: Thermoplastic-RTM / Surface RTM and FiberForm Technology	Atul Bali, *Competitive Green Technologies* Light-Weighting Opportunities using Biomaterials in Automotive Applications	Louis Dorworth, *Abaris Training Resources, Inc.* Adhesive Bonding of CFRP Composites: Practices and Principles - Part 4 of 4
10:00–10:30	BREAK / EXHIBITS - Hall C		
	SESSION 22: ENABLING TECHNOLOGIES - PART 3 OF 3: *NDT, Direct Fiber Feeding, & Hybrid Vehicles*	**SESSION 23: BONDING, JOINING & FINISHING - PART 1 OF 1**	**SESSION 24: TUTORIALS - PART 1 OF 2:** *Bioplastics & Biocomposites*
10:30–11:00	Jan Olav Endrerud, *DolphiTech AS* Non-Expert Non-Destructive Testing (NDT) Solution for Composite Materials in the Automotive Industry	Mike Day, *American Chemistry Council - Plastics Division* Efficient Assembly & Joining: Reversible Bonded Joints Using Nano-Ferromagnetic Particles - Technical & Business Case Study	Karen Stoeffler, *National Research Council Canada (NRCC)* Bioplastics & Biocomposites for Automotive - Part 1 of 2
11:00–11:30	Ryosuke Nakao, *Kyoto Institute of Technology* Mechanical Properties of Injection Molded Products Fabricated by Direct Fiber Feeding Injection Molding	Ryan Schuelke, *Enercon Industries* Mastering Plasma & Flame Surface Treating Technologies to Improve Adhesion with Composite Materials	Karen Stoeffler, *National Research Council Canada (NRCC)* Bioplastics & Biocomposites for Automotive - Part 2 of 2
11:30 a.m.–12:00 p.m.	Martino Lamacchia, *Cannon USA* Innovative Solutions for the Production of Reinforced Carbon Fiber Components for the Latest Hybrid Vehicles	Andy Stecher, *Plasmatreat USA, Inc.* Surface Treatment for Improving Performance and Automation in CFRP Bonding and Manufacturing	
12:00–12:30	Ingo Valentin, *Valentin Technologies, LLC* Composite Platform with Integrated Energy Storage & Crash-Absorbing System for a Hydraulic Hybrid	Ruomiao "Grace" Wang, *Hanwha Azdel Inc.* Improving the Adhesion between Fabric and Substrate Material by Selecting the Right Film	
12:30–1:30	LUNCH, PARTS COMPETITION WINNERS, LARGE-PART DISPLAY - Hall C		
1:30-2:30	KEYNOTE 5 – Diamond Ballroom: Antony Dodworth, Managing Director, Brite Lite Structures A Platform for Novel Lightweight Automotive Composite Structural Design		
2:30–2:45	CLOSING REMARKS & PART INNOVATION AWARDS: Fred Deans & Dale Brosius, 2015 SPE ACCE Co-Chairs		
2:45	CONFERENCE ADJORNS FOR THE YEAR		