Abdalslam, Suof Omran

Souf Abdalslam is a Ph.D. candidate in the Mechanical Engineering Department of Wayne State University. He earned a Bachelor's degree in Mechanical Engineering from Alfateh University in Tripoli, Libya in 1991, a Master's degree in Mechanical Engineering at Kazan State University in Kazan Tatarstan, Russia in 2002, and has been at Wayne State since 2009. From 1991-2008, Abdalslam was Head of the Design Department at the Central Agency for Research in Tripoli, Libya. The focus of his current research is impact testing of sandwich composite materials.

Abouzahr, Saad

Saad Abouzahr holds a Bachelor's of Science degree in Chemical Engineering from Oklahoma State University and a Ph.D. in Chemical Engineering from Virginia Polytechnic Institute & State University. He started his career working at Mobay Chemical Corp. (currently Bayer) in 1978 in the automotive RIM Division where he was responsible for the development of the RIM formulation that were used on the Pontiac *Fiero* sports coupe. He joined Chrysler Corp. in 1986 and was responsible for setting up and implementing the automaker's plastic and composite strategy, which included development of plastic and composite body panels, a composite pickup box, a composites-intensive vehicle, as well as multiple underhood applications. Abouzahr was also responsible for the development of an aluminum-intensive vehicle, the *Neon Lite*, and was the Materials Executive for the *Prowler*, an aluminum- and composite-intensive roadster. Between 2000 and 2008, Abouzahr was Senior Manager responsible for materials and structural analysis for the *Viper* and other SRT vehicles. Since then, he is Head of Organic Materials.

Akiyama, Koichi

Koichi Akiyama is a Research Director at Mitsubishi Rayon Co., Ltd. where he leads the development of mass-production processes for automotive carbon fiber-reinforced plastics, including material, molding processes, and application development. He has dedicated 20 years to research and development of unsaturated polyester and vinyl ester resins, molding compounds such as SMC and BMC, and molding processes for these materials at Takeda Chemical Industries, Ltd. (Japan) and Quantum Composites Inc. (in the U.S.) before he joined Mitsubishi Rayon Co., Ltd. in 2007.

Al-Sharif, Ali

Ali Al-Sharif is currently Ph.D. candidate at Wayne State University, where his thesis work has been on "Buckling Behavior and Impact Damage Growth Compression-Compression Fatigue for Sandwich Composites." Additionally, he has conducted some research in fracture behavior of sandwich composite materials that interacts with the failure modes and failure propagation under 4-point bending fatigue tests. While at Wayne State, he has been serving as Instructional Research Assistant and has provided graduate student assistance since 2011. He expects to graduate by May of 2013 and is interested in working in industry after graduation. Al-Sharif came to Wayne State University after several years of service to Sabha University in Libya. While there he taught various courses and supervised several undergraduate projects in the Mechanical Engineering Department. Before joining the Engineering School faculty at Sabha, he was a student at Budapest University of Technology and Economics in Budapest, Hungary. He applied for his Master's program in Mechanical Engineering and graduated in 2005. Al-Sharif earned his Bachelor's degree in Engineering in 1995 from University of Garyounis in Benghazi, Libya. Al-Sharif also has served within the mechanical engineering discipline in Libya for several employers, including as Mechanical Engineering Supervisor at Tassli Office for Engineering Consultations in 2005, Trainer in the Mechanical Labs at Zawilah, Murzuk from 1997 to 2000, Mechanical Engineer at Alsharara Factory in 1998, and Mechanical Engineer under the Maintenance & Construction Departments at Alwaha Oil Company from 1996 to 1998. He received a scholarship to apply for his Master's degree, and the Excellent Teaching Award from the Mechanical Engineering Department of University of Sebha. He also received the Thomas C. Rumble University Graduate Fellowship from Wayne State for 2012-2013. He is a member in a variety of honor and engineering organizations such as Golden Key Honor Society, the Engineering Society of Detroit, and American Society of Mechanical Engineers.

2012 SPEAKER BIOGRAPHIES

Armstrong, Nathan James

Nathan Armstrong is President and a Director of Motive Industries Inc. (Calgary, Alberta), Co-chair of the Alberta Chapter of the Canadian Space Society (where he leads a subcommittee on Materials & Structures) and also is a member of the Founders Group of Spacebourne Inc. He has over 17 years of transportation design engineering experience in the Aeronautical, Space, and Automotive sectors, as well as more than 7 years' experience founding and operating private businesses in the U.S. and Canada. After schooling as a drafting technician in Southern California, Armstrong worked as a CAD engineer on the International Space Station, Delta Rockets, and Joint Strike Fighter programs. In 1996 he moved to the automotive sector as VP of Engineering at Metalcrafters and afterwards VP-Engineering at Aria Group, where he managed the engineering and manufacturing of over 30 production beta vehicles, over 100 concept vehicles, and close to 1,000 clay models, interior models, and scale models. He established Motive Industries in 2004 to help move materials, engineering, and rapid manufacturing theories from aerospace and concept sectors into mainstream transportation markets. Over 400 successful vehicle projects have been completed by the company since its founding, including over 20 completed production designs. After moving himself and the company to Calgary in 2006, Armstrong has become a mainstay of local tech talks and advisory presentations to large companies. These include presentations at the ENMAX Leadership Forum, SAMPE, the Alberta Clean Tech Forum, the Haskayne School of Business, the Edmonton Division of the American Society of Material Engineers (ASME), and the Canadian Prairies Group of Chartered Engineers, where he gathered the largest audience in the group's history. He also co-founded Project Eve, a nationwide Canadian consortium of technology companies, research centers, technical schools, and universities all coming together to combine technologies and resources to develop Canada's own line of advanced transportation technology and production-level electric vehicles. Additionally, Armstrong co-founded the SuperDesigner Project with the Alberta Association of Colleges and Technical Institutes (AACTI) to promote the use of advanced design and engineering tools in colleges throughout the province. He also has taught Automotive Engineering at the prestigious Art Center in Pasadena and has taught Design for Manufacturing at the Alberta College of Art and Design. Motive Industries, which has significant experience providing vehicle design, engineering, and prototyping for composite-bodied electric vehicles (EVs), announced 2 years ago that it would produce prototypes of an all-Canadian content, bio-composites-intensive EV named the *Kestrel* and targeted for commercial evaluation. Since then, Motive has also released The *Bison*, a composite-bodied pickup truck designed for Canadian municipalities. Armstrong was recently honored as one of the Alberta Venture Business Persons of the year for 2027. Motive also was awarded a 2011 TechRev award for technology innovation, 2010 ASTech Honouree Award in the field of Technology Futures, ABCTech Entrepreneur of the Month Award, 2009 *Popular Science* magazine's Innovation Award, and 2007 Law Enforcement Best Vehicle Award.

Assaker, Roger

Roger Assaker, a tech entrepreneur, is CEO and co-founder of e-Xstream engineering, a software and engineering-services company that is 100% focused on advanced materials modeling. He holds both Ph.D. and M.S. degrees in Aerospace Engineering with a strong focus on nonlinear computational mechanics – an area of expertise where he now has 20 years' experience. Assaker has complemented his engineering education with an MBA in International Business, plus has taken additional advanced business and technology entrepreneurship courses from prestigious universities such as Massachusetts Institute of Technology. In addition to helping grow e-Xstream engineering into global leadership in advanced composite modeling, Assaker is also Vice-Chair of NAFEMS' Composite Working Group and an active member of other technical material associations such as SPE and SAMPE.

Bamford, Calvin

Calvin Bamford Jr., who is President and Chair of Globe Machine Manufacturing Co., has been responsible for overseeing the growth and development of Globe Machine and several related companies engaged in the design, development, and production of innovative production machinery for over 45 years. Bamford's educational background includes Mechanical Engineering and a B.S. degree from the University of Pennsylvania's Wharton School of Finance and Commerce, with advanced studies at The University of Puget Sound.

Barnes, Graham

Graham Barnes is a true believer in the potential for high performance composites to revolutionize the safety and environmental impact of mainstream production cars. Early in his career he was involved in the application of carbon composites in the development of supercars and racing cars, but inspired by some of the initiatives to extend fuel mileage through the automotive research consortia in the U.S., he focused Engenuity Ltd.'s efforts on mainstream vehicles and in particular the challenge of providing a reliable solution to the problem of simulating crash in composite structures. Having led the team that developed the CZone Crush prediction software for composite materials, he has gone on to apply and verify this on projects in the U.S. and Europe with mainstream manufacturers, who are incorporating it into the design processes for future vehicles.

Baron, Jay

Dr. Jay Baron is President and CEO of the Center for Automotive Research (CAR). In addition to executive responsibilities, Baron leads the Manufacturing Engineering and Technology group at CAR. His research has involved automotive tooling, vehicle assembly, process validation, and competitive evaluation of technologies involving advanced lightweight material processing and business-case assessment. Previously, Baron was an Associate Research Scientist at the University of Michigan. While there, he developed new tooling tryout techniques to accelerate vehicle launches while improving automotive body quality and reducing cost. He also introduced new analysis methods for assessing the correlation between tryout, stamping, and body-assembly processes. Additionally, Baron led several global benchmark efforts for various technologies, such as laser welding, high-strength steel, weld-bond adhesives, low-volume tooling design, and materials. Most recently, Baron has been involved with the identification and evaluation of technologies that contribute to improved fuel economy. In 2010, he co-authored, "Assessment of Fuel Economy Technologies for Light-Duty Vehicles," published by the National Research Council. Using data from this NRC publication, he co-authored, "The U.S. Automotive Market and Industry in 2025," published by the Center for Automotive Research. Baron continues to provide numerous presentations and seminars on automotive manufacturing and global trends. He holds Ph.D. and Master's degrees in Industrial and Operations Engineering from the University of Michigan and an MBA from Rensselaer Polytechnic Institute.

Braig, Steve

Steve Braig, President & CEO of Wilmington, Massachusetts-based Trexel Inc., has been a global executive in the plastics industry for 20 years. Prior to joining Trexel in 2010, he was CEO of Engel North America with responsibility for 3 manufacturing plants. Before he assumed a leadership role at Engel, he was CEO of Automated Assemblies Corp., a Nypro company. Braig holds a B.S. degree in Mechanical Engineering from the Federal Institute of Technology in his native Switzerland and subsequently continued his business education at the Management Zentrum St. Gallen in Switzerland and at Harvard University in Cambridge, Massachusetts. He also serves on the National Board of Directors of the Society of the Plastics Industry (SPI).

Bravo, Victor

Victor L. Bravo Ph.D., P.Eng. has over 20 years' experience in the polymer-processing field and is the author of more than 20 scientific publications and 1 patent. Bravo completed his doctorate at McMaster University (Hamilton, Ontario) on the subject of finite-element computer simulation of 3-dimensional flow fields in twin-screw extruders. In 2004, he completed a Post-Doctoral fellowship at McMaster University working on the development of a microcellular foaming process for automotive applications as part of the Auto21 program. Later, he worked in the area of natural fiber thermoplastic composites for construction applications as the Product Engineering Manager for McFarland Cascade. Bravo currently holds the position of Research Officer at the National Research Council of Canada, working at the newly created Magna-NRC Composites Centre of Excellence located in Concord, Ontario.

Brooke, Lindsay

Lindsay Brooke is Senior Editor of SAE's *Automotive Engineering International* magazine. He has written extensively about automotive technology, manufacturing, business, and history for 30 years. Before joining SAE, Brooke was Senior Auto Industry Analyst at CSM Worldwide (now IHS Automotive), specializing in technology forecasting for various industry clients. As an analyst, he was widely quoted by the *Wall Street Journal*, National Public Radio, *Forbes*, *Fortune*, and other media. Prior to that, Brooke was Editor of *Automotive Industries* magazine, with a brief hiatus as Manager of Engineering and Technology Public Relations at Chrysler Corp. He is the author of 5 books covering automotive and motorcycle history and development, and contributes to various consumer publications including *The New York Times* and *Popular Mechanics*. His work has received numerous professional accolades, including the annual Jesse H. Neal Award presented by the American Business Press for outstanding journalism. Brooke is a juror on the North American Car and Truck of the Year awards. He holds Bachelor's and Master's degrees in Journalism and Communications from Shippensburg University, and is a member of SAE International and the Automotive Press Association.

Buckley, Dan

Dan Buckley is the Manager of Corporate Research & Development for American GFM/GFM, where he is currently responsible for developing technology in the manufacture of single-wall carbon nanotubes, developing technology in the high-speed manufacturing of PEM fuel cell and DMFC components, and developing new process technology for the preforming of fiberglass, carbon fiber, and other reinforcement materials. Buckley has 40+ years of experience in composites, plastics, and related fields. He holds a B.S. degree in Chemistry from the University of Massachusetts and is the author of more than 75 technical papers for domestic and international publications. He has been an educational speaker at numerous universities, corporations and technical conferences, worldwide. He holds numerous patents in composites processing and related fields as well as patents currently in application, plus 2 new patents issued this year. Buckley is a co-founder of the Composites Division of SPE, founder of the SPE Nano/Micro Molding Special Interest Group (SIG), the past chair of both the SPE Composites and Thermoset Divisions. He served 5 terms as Councilor for SPE and is an Honored Service Member of the society.

2012 SPEAKER BIOGRAPHIES

Chaudhari, Raman

Raman Chaudhari has worked as a research employee at Karlsruhe Institute of Technology (KIT) since September 2007. He has also worked as a part-time research employee at Fraunhofer ICT since March 2009. He holds a Bachelor's degree in Polymer Engineering from Pune University, India and a Master's in Applied Polymer Science from Martin Luther University, Halle-Wittenberg, Germany. Currently he is working on his Ph.D. with the research topic of "Development and Characterization of Various High Pressure RTM Processes," which is supervised by Prof. Peter Elsner and Prof. Frank Henning. Prior to starting his doctoral work, Chaudhari worked on materials and process development of LFT materials that can withstand the e-coat process for structural automotive applications.

Jeffrey Cernohous

Dr. Jeffrey Cernohous received a B.S. in Chemistry from University of Wisconsin-River Falls in 1993 and a Ph.D. in Organic Chemistry from University of Minnesota in 1997. After completing his graduate work, Cernohous joined 3M's Adhesive Technologies Center and there began research programs aimed at developing new materials having a controlled molecular architecture. In 2002, he joined 3M's Dyneon organization as a Development Group Leader. In this supervisory role, he transferred the Controlled Architecture Materials program to this organization and took on the responsibility for developing the technology into a business for Dyneon. In late 2003, he left 3M to found Interfacial Solutions, a materials development and transfer company. In his current role as Chair and CTO, he is engaged in developing and commercializing new technologies and products for solving problems related to interfacial phenomena in plastics and plastic composites. In 2006, Interfacial Solutions was named the St. Croix County Emerging Business of the Year. In 2010, the Wisconsin Entrepreneurs Network (WEN) named it one of "Wisconsin Companies to Watch." The company was also named to the 2010 Inc 500, with a ranking of #304. Throughout his career, Cernohous has been an active scientific publisher. He is a named co-author on more than 30 scientific publications and more than 60 U.S. patents and patent applications.

Cortes, Pedro

Pedro Cortes holds a Ph.D. in Materials Science and Engineering from the University of Liverpool and has an educational background in the area of composite materials and hybrid structures. He has acted as Visiting Professor at the University of Arizona and as College Assistant Professor at New Mexico State University. He currently holds an Assistant Professor position in the Civil/Environmental and Chemical Engineering Department at Youngstown State University. His research interests focus on the structure-property relationships of composites structures and nanomaterials

Curtis, Jason

Senior Application Engineer with Inceptra LLC, Jason Curtis is a CATIA product expert specializing in composites design and manufacturing tools. He has been involved in several CATIA composites implementations, as well as acting as a composites consultant for automotive, aerospace, and wind-energy applications. Curtis has extensive knowledge of automotive products and processes through previous employment as a supplier to many major OEMs.

Dugsin, Paul

Paul Dugsin, President of Chetna Consulting, has been consulting to knowledge-intensive organizations since 1997. Sought by senior leadership of leading research-driven entities, Dugsin has crafted a unique approach to development within and across disciplines and sectors, and has assisted his clients in securing hundreds of millions of dollars over the past 5 years. He has developed a novel approach to knowledge channels and transfer that is scalable to any scope – whether at the level of the single project, division, organization, municipality, region, or beyond. This dynamic methodology is very timely in the latest era of accountability for investment from public or private sources.

Drzal, Lawrence T.

Lawrence T. Drzal is a University Distinguished Professor of Chemical Engineering and Materials Science as well as Director, Composite Materials and Structures Center at Michigan State University (MSU). He received his Ph.D. at Case Western Reserve University and joined MSU in 1985 after serving as a military and civilian researcher at the U.S. Air Force Materials Laboratory at Wright-Patterson Air Force Base in Dayton, Ohio, where he was responsible for interfacial research in advanced composite materials and adhesively bonded systems. Since joining MSU, his research has been directed at understanding the fundamental physical and chemical interactions that take place between polymers and the surfaces of adherends, fibers, fillers, and nanoparticles in composite materials and adhesively bonded structures. Currently his research group is investigating multifunctional, inexpensive graphene nanoplatelets; nanostructuring of materials for enhanced energy generation and storage applications; and surface modification with UV light and air to control adhesion. During his career, Professor Drzal has published over 350 peer-reviewed research papers, and has been awarded 31 patents. He has been identified by ISI as one of the most-cited materials researchers. He currently serves on the editorial board of 5 journals and on numerous government committees and has been elected a Fellow of 5 professional societies. In 2007, he co-founded XG Sciences, Inc., a Michigan-based graphene nanoplatelet company where he serves as Chief Scientist.

Eberle, Cliff

Cliff Eberle is the Technology Development Manager for the Oak Ridge National Laboratory's Polymer Matrix Composites Group. Eberle is the Research Leader for ORNL's Carbon Fiber Technology Facility project, bio-carbon fiber program, and ultra-high-performance carbon fiber development project. He is also a significant contributor to strategic planning, intellectual property management, partnership development, program development, and technology transition related to innovative carbon fiber technology. Eberle has 27 years of professional experience in various engineering, scientific, management, and program development capacities, including approximately 15 years of experience with fiber-reinforced composite materials. He earned his M.S. degreein Mechanical Engineering from Oklahoma State University in 1984 and joined the staff at Oak Ridge National Laboratory that same year.

El Khaldi, Fouad

Fouad el Khaldi, who is currently the General Manager of Industry Strategy & Innovation for ESI Group, has spent almost 30 years in the field of computer-aided engineering (CAE) research and industry. He joined the company in 1988 after receiving a Civil Engineering Diploma from AUB in Beirut, Lebanon, and a Ph.D. degree in Numerical Simulation from INSA in Lyon, France. He started his career as a Senior Consultant for the IBM Japan – ESI Group joint venture in Tokyo between 1989 and 1994, where he worked on the development of new solutions for sheet-metal forming simulation in collaboration with the Japanese automotive industry. From there, he went on to establish PAM-STAMP as an industry simulation software product in 1995 and in 1997 established the Virtual Manufacturing product line. The next year, he extended Virtual Manufacturing Product line to cover composite materials and processes. And in 2000, he made a key contribution for the initial public offering (IPO) of ESI Group and its associated business transformation. In 2004, el Khaldi was in charge of the Virtual Prototyping Software branch (Design & Manufacturing) of ESI with significant merger and acquisition (M&A) activity. And in 2010, he was in charge of Industry Strategy & Innovation to support the transformation of ESI towards Industry Solutions in Virtual Engineering. El Khaldi has authored or co-authored numerous technical papers on the subject of CAE innovations and applications in virtual manufacturing processing and prototyping over the past 3 decades and he holds several patents in the field. He also is active in several associations related to numerical simulation and virtual prototyping.

Emerson, Duane

Duane Emerson is a Senior Applications Engineer – Composites Strategic Programs Group for Ticona Engineering Polymers. He has been a member of Ticona's Technical Services group in Auburn Hills, Michigan since 2001, focusing on new client and application development related to alternative-processing technologies, including the fabrication of thermoplastic composites. Emerson's expertise includes a wide range of metal-to-plastic conversions within the automotive industry (e.g. exterior body components and windshield-wiper systems), military hardware, and Industrial applications (e.g. fluid-handling pumps, air compressors, door hardware, power tools, and mining & construction equipment). He holds a Bachelor's degree in Mechanical Engineering from the University of New Hampshire.

Fristedt, Tommy

Tommy Fristedt is President of LayStitch Technologies, provider of unique machine solutions for automated Tailored Fiber Placement (TFP). He has worked as inventor and developer of technology for the automotive industry for 25 years. Before starting LayStitch Technologies, he worked as Product Manager-Seat Climate for Kongsberg Automotive. He has a broad experience from inventing and developing high-volume electronic, electromechanical, mechanical, and plastic products supplied to major global car manufacturers.

Fuchs, Hannes

Dr. Hannes P. Fuchs, currently Principal Engineer – Composites with Multimatic Engineering, is a recognized industry expert in the design and application of lightweight structures and materials. He has 20 years of experience in advanced engineering and R&D of composite and lightweight structures. He came to the automotive industry from the NASA-Virginia Tech Composites Program and did post-doctoral research activities at the NASA Langley Research Center. Joining General Motors Research & Development, Fuchs conducted research on advanced lightweight and crashworthy carbon composite automotive structures. Twelve years ago, Fuchs joined Multimatic where he has managed and directed a wide range of engineering activities for advanced and composite structures, including design engineering, computer-aided engineering, prototype and production manufacture, tooling, and testing. Fuchs holds both BSME and MSME degrees from University of Maryland and a Ph.D. degree from Virginia Polytechnic Institute & State University.

Gandhi, Umesh

Senior Principal Scientist, Dr. Umesh Gandhi has worked at the Toyota Technical Center in the U.S. for the past 14 years. Currently, his main interests are in characterizing and developing material models to help design lightweight vehicle structures. Previously, Gandhi worked on vehicle crashworthiness, structural optimization, and system identification. Prior to joining Toyota, Gandhi worked for 9 years in vehicle development at General Motors. He holds a Ph.D. degree from the University of Michigan-Ann Arbor.

2012 SPEAKER BIOGRAPHIES

Graf, Matthias

Matthias Graf is currently the Managing Director of the Forming business unit of Dieffenbacher GmbH & Co. KG in Germany, a position he has held since 2010. From 2008 until 2010, Graf was Technical Director of the Forming business unit. Before that, from 2004 to 2008, he was Product Manager for High-Pressure Systems at Dieffenbacher, and from 1999 to 2004, he was Head of R&D for the company's Wood business unit. Graf gained international experience during a 2-year assignment in Canada at the company's North American operation in Windsor, Ontario as Engineering Manager from 1997 through 1998. He began his 21-year career at Dieffenbacher as a Design and Development Engineer. He holds a degree in Mechanical Engineering from the Karlsruhe University of Applied Science and an MBA degree from University of Southern Queensland (Australia) through the European Study Center.

Gobernatz, Joe

Joe Gobernatz is the Engineering and New Business Development Manager for ATF Inc. He has been with the company for 8 years and started his career in Quality as a Process Engineer and worked his way up through the organization to his current role managing the front end of the business, which consists of quoting, application engineering, tooling design and the APQP/PPAP Group. Over his career, Gobernatz's main focus has been thread-forming fasteners into thermoplastic and thermoset applications throughout the automotive industry. He holds a Bachelor's degree in Mechanical Engineering from Northern Illinois University and recently completed an Executive Development Program at the Kellogg School of Management.

Greb, Christoph

In 2008, Christoph Greb became a Scientific Co-Worker in the Fiber-Reinforced Composites Department at the Institute for Textile Techology of RWTH Aachen University in Germany with a focus on preforming technologies for fiber-reinforced composites. In 2010, he became Head of the Research Group on 3D Preforming there, and in 2011, he became Deputy Head of Composites. Greb holds a Diploma in Mechanical Engineering from RWTH-Aachen University.

Han, Nathan

Dr. Nathan Nanlin Han currently is Founder and President of 3D Nanocomposites, Inc., a company focused on commercializing Han-3D-Composites and Han-Layup-Robots for mass production of preforming and composite products. Previously, Han was a Senior Mechanical Engineer at Boston Scientific Corp. where he designed implanted medical devices from 2005 to 2009. Before that, Han was a Design/Manufacturing Engineer at True Temper, Inc. from 2003 to 2005, where he focused on manufacture of top brand golf shafts, hockey sticks, and bike parts. While attending engineering school at the University of California-Los Angeles from 1998-2003, Han designed, manufactured, and tested plastic composite structures for FAA and NASA projects as a Postdoctoral Research Associate. Han received his Ph.D. in Materials Engineering in 1996, and is the inventor of Han-3D-Composites and Han-Layup-Robots. His international patent-pending inventions won the prestigious Innovation Award at the 2010 JEC Paris show.

Han, Sejin

Sejin Han is a member of the Autodesk Moldflow R&D team. He has participated in the development of various simulation software related to polymer processing. His expertise includes 3D-molding simulation, injection-compression molding, microcellular-molding process simulation, and thermoset-process analysis (including microchip encapsulation, underfill encapsulation, and resin-transfer molding). He holds a Ph.D. degree from Cornell University.

Hangs, Benjamin

Benjamin Hangs graduated in 2010 and holds a degree in Mechanical Engineering from the Karlsruhe Institute of Technology (KIT), Germany. In May 2010, he started work as doctoral candidate in Prof. Dr.-Ing. Frank Henning's Polymer Engineering Department at the Fraunhofer Institute for Chemical Technology (ICT) in Pfinztal, Germany. Thanks to a partnership between Fraunhofer ICT and the Fiberforge Corporation (Glenwood Springs, Colorado), Hangs' research is based on a novel high-speed tape-laying technology focusing on methodologies to integrate features such as ribs, clips, or screw bosses into thermoplastic, continuous-fiber-reinforced laminate structures. This is achieved by processing with traditional and novel compression and injection molding technologies.

Harper, Lee

Dr. Lee Harper is a Senior Research Fellow at the University of Nottingham. Following a Master's degree in Mechanical Engineering, he completed a Ph.D. in Composite Materials in 2006, investigating the use of discontinuous carbon fiber composites for automotive applications. He currently leads a team of 10 doctoral students specializing in the simulation of discontinuous fiber composites and the development of automated manufacturing processes for high-volume applications.

Head, Andrew

Andrew Head is the Founder and President of A&P Technology, a world-leading manufacturer of braided products. Since 1986, Head has led the braiding industry by designing braid machinery that surpasses the capabilities of commercially available equipment and meets the needs of composite designers. The company has produced the largest braider in the world, an 800-carrier machine. Under Head's direction, A&P has grown from 2 people to a company of 170 employees and has been established as a leader within the composites industry. He is a graduate of Dartmouth College with a B.S. degree in Economics.

Hofmann, John

John Hofmann completed his Bachelor's degree in Chemical Engineering at Case Western Reserve University before moving on to graduate school at Virginia Tech. He is currently in his 4th year in the Macromolecular Science and Engineering program working towards a Ph.D. He is advised by Dr. Don Baird and works in the Polymer Processing lab in the Department of Chemical Engineering. The main focus of his research is on glass-fiber-reinforced injection-molded composites.

Husman, George

George Husman, Chief Technology Officer for Zoltek Companies, Inc., is responsible for all corporate research and development on carbon fiber products and applications development (including automotive). He manages R&D personnel, facilities, and projects globally, including sites in Missouri, Texas, Utah, Mexico, and Hungary. He works closely with customers to develop and demonstrate new materials and processing technologies for customer applications. Husman is a materials engineer and manager with 40 years of experience in advanced materials technology development in government, industry and academia. Prior to joining Zoltek 6 years ago, he spent 18 years with the U.S. Air Force Materials Directorate holding research and management positions in composite materials, including Director-Nonmetallic Materials Division. He also spent 6 years working for BASF Structural Materials, Inc. as VP-New Business Development, VP and General Manager-Thermoplastic Composites, and VP-R&D. Additionally, Husman worked 10 years at Southern Research Institute as a VP of the Engineering Division and 3 years at University of Alabama at Birmingham as Associate Research Director in the School of Engineering. He holds a B.S. degree in Aerospace Engineering from the University of Cincinnati and an M.S. degree in Materials Engineering from the University of Dayton.

Inglefield, David

David Inglefield holds a B.S. degree in Biochemistry from Virginia Tech, which he received in 2009. Since graduating, he has worked as a graduate research assistant under his undergraduate and graduate research advisor, Dr. Timothy E. Long, professor of Chemistry and associate dean of Strategic Initiatives, Department of Chemistry, College of Science at Virginia Tech. The focus of their graduate work together has been synthesis and characterization of novel functionalized multiwall carbon nanotubes (MWCNT) and MWCNT composites. Inglefield's undergraduate work with Long involved synthesis and characterization of cinnamate functionalized ultraviolet (UV) cross-linkable ammonium ionenes. Since receiving his undergraduate degree, Inglefield also has worked as teaching assistant (undergraduate Organic Chemistry lab for non-majors) at Virginia Tech and has been an American Chemistry Society (ACS) short-course presenter, where he was responsible for demonstrating various polymerization techniques. His current research expertise is in organic functionalization of MWCNT for polymer composites; electrospinning of polymers and MWCNT composites; performing transmission-electron and scanning-electron microscopy, nuclear magnetic-resonance spectroscopy, differential scanning calorimetry, thermogravimetric analysis, Raman and infrared spectroscopy, cryomicrotomy, dynamic light-scattering analysis, and rheology. In addition he has co-authored two publications presented at industry conferences.

Jimenez, Jonah

Jonah Jimenez is President of Sigmatex High Technology Fabrics, which produces carbon fiber textiles for the U.S. markets and is one of 3 global locations for Sigmatex serving the European, Americas, and Asian markets. His background in composites goes back over 30 years. He has worked in carbon fiber manufacturing – both PAN and rayon-based – as well as weaving, pre-preg, and composite part fabrication. His experience covers structural, carbon/carbon, and ablative applications, and he has worked in U.S. and European locations. Jimenez holds a B.S. degree in Mechanical Engineering from University of California-Irvine and an MBA from Pepperdine University.

Khoun, Loleï Karine

Loleï Khoun completed her Ph.D. degree in Mechanical Engineering at McGill University, Montréal, Canada in 2009. She is now working as a Research Associate, Automotive Portfolio, in the Advanced Polymer Composites Group at the National Research Council Canada. Her work focuses on the processing and performance of composite materials.

Kiziltas, Alper

Alper Kiziltas holds an undergraduate degree in Forest Products Engineering from Karadeniz Technical University, Trabzon, Turkey. Upon graduation, he was awarded a prestigious scholarship from the Turkish government to attend graduate school at the Karadeniz Technical University Graduate School. In the Spring of 2006, the Republic of Turkey/Ministry of National Education awarded him a full scholarship to pursue graduate studies in wood science and technology in the United States. He enrolled in the School of Forest Resources at the University of Maine in the fall of 2007, obtained a Master's of Science degree in August of 2009, and is currently enrolled in the School of Forest Resources' Ph.D. program. Kiziltas expects to graduate in 2013.

Kragl, Joachim

Joachim Kragl is currently Director of Advanced Molding Systems and Processing for ENGEL North America. He graduated from the TGM College for Polymer Engineering and Processing in Vienna, Austria in 1992. Upon graduation he immediately began work as an Applications Engineer in the processing department of machinery manufacturer ENGEL Austria GmbH. In 1999 he transferred to ENGEL's Research & Development department and became technology manager for MuCell, in-mold labeling, and in-mold film decorating activities. As such, he was responsible for all activities in the fields of foam injection molding and in-mold film decoration processes. Kragl moved to Guelph, Ontario to join ENGEL Canada in October 2000 and was promoted to the firm's Manager of Processing Technology in 2003. He assumed his current role in July 2009, and now works out of ENGEL's York, PA facility.

Kreiling, Stefan

Dr. Stefan Kreiling is Head of Product Development Europe for the Automotive Business Unit of Henkel Corp., a position he has held since 2010. Previously, from 2008-2010, he was Team Leader – Global R&D – Thermoset Systems at the company, where he was responsible for epoxy, reactive resin chemistries, and composites. Kreiling began his work in the chemical industry in 2004 when he joined Henkel's Corporate Research group in Polymer Chemistry. He is a 2004 graduate with a Ph.D. in Polymer Sciences from the University of Marburg in Germany.

Kumar, Kunal

Kunal Kumar received his Ph.D. in Polymer Science from the University of Akron in 2009. He is currently employed as a Product Developer at Hanwha Azdel, Inc. in Forest, Virginia, focused on development of new high-performance composites for automotive applications.

Kuppinger, Jan

Dr.-Ing. Jan Kuppinger studied Mechanical Engineering at Stuttgart University from 2001 to 2006. Afterward, he worked as a Scientific Assistant at the Fraunhofer Institute for Chemical Technology (ICT) in Pfinztal, Germany. He received his Ph.D. degree in 2012 for work on long fiber reinforced polyurethanes and polyurethane sandwich structures. Since 2011, he has been Group Leader of the "Processing of Thermosets" workgroup at Fraunhofer ICT.

Kuttner, Oliver

Oliver Kuttner is the Founder and CEO of Edison2, an automotive innovation company that won the 2010 Progressive Insurance Automotive X Prize and has since developed an electric Very Light Car rated at 245 MPGe (EPA combined). A graduate of Boston University, he is also a commercial real estate developer in Charlottesville and Lynchburg, Virginia. Kuttner has a lifelong passion for cars and racing, from race-car driving to prototype construction: his successes on the racetrack include the Doran JE4 Daytona Prototype and the ALMS Ford GTR. He is a former BMW, Porsche, and Audi franchisee, a collector of Italian cars, and is now taking Edison2's prize-winning technologies to commercialization.

Lashmore, David S.

Dr. David S. Lashmore is one of 3 founders of Nanocomp Technologies Inc., a 2004 spin-off from Synergy Innovation, Inc., a Lebanon, New Hampshire-based technology-development company. In his work there as Vice-President and Chief Technology Officer, he is involved in the basic issues of nanotube growth, manufacturing development, and property measurements. He is also instrumental in helping develop new applications for carbon nanotube (CNT) textiles, such as cables and conductors, ballistic armor, thermal interfaces, super insulators, heat straps, thermoelectric applications, and space-based CNT composites. Prior to joining Nanocomp Technologies, Lashmore was a Senior Scientist at Synergy Innovation from 2002 to 2004, and before that he was a co-founder and Vice-President of R&D at Materials Innovation Inc. from 1994 to 2002. Lashmore also worked as Group Leader-Metallurgy Division at the National Institute of Standards and Technology (NIST) from 1977 to 1993. With over 100 total and 11 non-archival publications to his credit, and named on 35 issued patents and 22 patent applications, Lashmore also is the recipient of numerous awards and industry recognitions. He has been honored with the U.S. Department of Commerce's Bronze Medal (1986), the Electrochemical Society's Electrodeposition Research Award (International, 1989), the Electrochemical Society's Blum Award (1992), a Research Award from the American Electroplaters and Surface Finishers International (1994), the Power Metallurgy Award for Advanced Soft Magnetic Materials (2000), Time magazine's Invention of the Year award for the compact powder metallurgy press (2000), the Wall Street Journal's Technology Innovation Award for CNT sheets (2008), and the National Aeronautics and Space Administration (NASA)'s Nano-50 2007 for CNT sheets (2008). He was also President of the Electrochemical Society's Electrodeposition Division from 1987 to 1989. Lashmore holds a B.S. degree in Engineering Science from the University of Florida, an M.S. degree in Physics from Michigan Technological University, and a Ph.D. degree in Materials Science from the University of Virginia.

Leer Lake, Carla

Dr. Carla Leer Lake is a Research Engineer at Applied Sciences Inc., located in Cedarville, Ohio. For the past 4 years, she has been the lead scientist for the development of multi-functional thermoplastic composites reinforced with carbon nanomaterials. Prior to joining ASI, Lake was a Research Assistant at the Institute for Polymers and Composites, in Portugal. She holds both B.S. and Ph.D. degrees in Polymer Engineering from the University of Minho in Portugal.

Lewis, Randy

Randy Lewis of P.R. Lewis Consulting, LLC has almost 40 year of experience in the plastics industry, holding positions ranging from Setup Man to Division President for a Fortune 100 company. He also founded and was a principal of Colgate Plastics South, Inc. He holds 1 issued patent and 2 more pending patents, has a degree in Industrial Engineering from Gaston College, and is former International Vice-President of SPE. He is currently partnering with Zeon Technologies, Inc. to produce BMC with properties that exceeds what is currently available.

Lobkovich, Tom

Tom Lobkovich is a Technical Fellow with General Motors (GM). He is currently with the Concept & Vehicle Integration group at the Global Advanced Vehicle Development Center in Warren, Michigan. He has been with GM for over 30 years in a variety of engineering positions dealing primarily with the development of advanced vehicle bodies. He has significant experience in the usage of light-weight materials, including composites. In his current assignment, he has been involved in the development of ground-up bodies for a variety of GM concept vehicles. Prior to this, Lobkovich was an Engineering Manager responsible for overall design and development of the body for GM's *Precept* demonstration vehicle, as well as the aluminum body structure for the *EV1* electric vehicle. Lobkovich holds a BSME degree from Kettering University and an MSE degree in Applied Mechanics from the University of Michigan. He also is a Licensed Professional Engineer.

Lownsdale, Gary

Gary Lownsdale, who is currently Chief Technology Officer for Plasan Carbon Composites (PCC), has had a career-long interest in plastics and composites and has made significant contributions to the field in the last 4½ decades. He joined PCC in 2008 as Engineering Manager and Head of R&D and later became Vice-President of Technology before taking his current role. As North America's largest automotive supplier of carbon composite body panels, PCC has been able to drop the effective cycle time to produce carbon composite parts from 90 minutes to 17 minutes under Lownsdale's leadership. Lownsdale has held many consulting and corporate management roles in the automotive, marine, and defense industries. He has consulted for a number of carbon nanotubes companies and carbon fiber producers, including work on low-cost carbon fiber with Oak Ridge National Laboratory. He also has consulted on composite monocoque body structures for midsize cars with a joint U.S./Japanese advanced body systems program and helped a startup company design and produce a composite-bodied dual-purpose street-legal microcar that could be driven on golf courses. He is the former Chief-Executive Officer of Mastercraft Boats, where he applied automotive and aerospace composites experience to help develop faster and more efficient ways to produce composite-bodied ski boats. He was Industry Director-Automotive for Hercules Aerospace where he was responsible for transferring declassified defense technology into the automotive industry. He did a 2-year assignment as an unclassified executive in General Motors' Saturn organization leading exterior body programs in both design and manufacturing to help the automaker launch its line of thermoplastic body paneled vehicles – work that later earned him an honorary Chief Engineer title. He also led two design teams at GE Plastics, helping oversee work on key thermoplastic-bodied vehicles including the BMW Z1 roadster. Before that, Lownsdale was Executive Director-Automotive Systems at Schlegel during the company's development and launch of thermoplastic vulcanizates glass-sealing systems. Lownsdale started his career at Chrysler Corp. where he was charged with lightweighting the company's muscle cars to help make them go faster. He later applied this experience at Ford Motor Co. helping design lightweight components to make 1970s-era cars more energy efficient. He earned a BSME degree from the joint University of Cincinnati / Chrysler Institute program. He holds 7 issued patents and has 4 more pending, and is in the process of filing an additional 6 – all in the polymer/composites area. He has authored over 100 articles published on 5 continents, was named an Outstanding Young Engineer by Engineering Society of Detroit (ESD) in the mid-1970s, and is an active member of SPE, SAE, and ESD, and a former member of ASTM, ASME, and ASBE. At least 5 applications he helped develop have been SPE Automotive Innovation Awards winners or finalists, and in 2012 he was named the SPE Automotive Division Lifetime Achievement Award winner. He is the former President of the Austin Healey Club of America and was Founding Commodore of the Austin Healey Boar Club. His hobby is collecting and restoring classic cars.

Ludwig, Cheryl

Cheryl Ludwig is currently a Thermoset Process Development Specialist at Chromoflo Technologies (formerly known as Plasticolors, Inc.). For the past 8 years, Ludwig has been employed at Chromoflo Technologies developing and supporting additives for the reinforced thermoset industry with emphasis on thickening control of SMC. Prior to Chromoflo, she spent 30 years working at Premix, Inc. During her tenure at Premix she held numerous positions in technology including Product Development Chemist for SMC / BMC / TMC. Ludwig holds a B.S. degree in Chemistry from Lake Erie College.

Mailen, Russell

Russell (Russ) Mailen is currently a graduate student in the department of Mechanical Engineering at Baylor University. He accomplished his undergraduate study at the University of Kansas, and prior to beginning his graduate studies, gained 4 years of work experience in the aerospace industry. His recent research has focused on the experimental investigation of process-induced strains and flaws in carbon fiber composites. His future research interests will focus on developing mathematical models to predict processes-induced physical processes and phenomena.

Månson, Jan-Anders

Professor Jan-Anders E. Månson received his Ph.D. from Chalmers University of Technology, Gothenburg, Sweden. After several years' industrial experience as Chief Technology Officer, he was appointed Professor of Composite Materials at University of Washington, in Seattle, Washington, U.S.A. In 1990, Månson joined Ecole Polytechnique Fédérale de Lausanne (EPFL) as Professor and Director of the Polymer and Composite Laboratory (LTC). His research is focused on novel cost-effective materials, processes, and applications with additional functionality, pushing the performance envelope beyond that of classical composite materials. Emphasis is on scaling and implementation strategies for an industrial context in the automotive, aerospace, and sport domains. He has led several supply-chain consortium projects in the automotive field. Månson also is Founder of the composite company, EELCEE SA, active in the field of high-volume composites and is President of the International Sport Academy (AISTS), an organization linking academic institutions in collaboration with the International Olympic Committee (IOC).

Meyer, Kevin

Kevin Meyer is originally from southwest Florida. He did his undergraduate studies at Florida State University where he received his B.S. degree in Chemical Engineering. He is currently a Chemical Engineering doctoral student working under Dr. Don Baird in the Polymer Processing Laboratory at Virginia Polytechnic Institute & State University.

McKay, Tom

Tom McKay is the Business Development Manager for BASF's Epoxy Systems Group, where he has been active in developing the company's epoxy systems business in the wind and automotive industries. Prior to his current position, McKay worked in the coatings industry for BASF and PPG. He has previously held positions in Project and Process Engineering, Plant Management and Product and Marketing Management. He earned a B.S. degree in Chemical Engineering from the University of Kentucky and an MBA from the University of Redlands.

Mihalich, Jim

Jim Mihalich joined Cyclics Corp. in 2003 as Sales Director – Americas. He re-joined the company in early 2009 as Vice-President of Research & Development and was promoted to CEO in April 2010. During his 28 years in the plastics industry, he has held titles of VP of Operations, VP of Sales, and VP of Commercial Development for several mid-size firms. Mihalich also founded and ran a startup producer of plastic color concentrates. He was with GE's Plastics and Silicones businesses for a combined 10 years in marketing, sales, and planning. He holds a Bachelor's degree in Chemical Engineering from The University of Pennsylvania and earned an MBA from UPenn's The Wharton School.

Minnichelli, Mark

Mark Minnichelli is Director, Technology and Development at BASF Engineering Plastics. After earning Bachelor's and Master's degrees in Mechanical Engineering from Massachusetts Institute of Technology and Rensselaer Polytechnic Institute respectively, Minnichelli began his career in the plastics industry in 1983 with GE Plastics, where he held various individual and leadership roles in the areas of computer-aided engineering, application development, and customer technical support. In 1996, he joined AlliedSignal Plastics as Manager of Application Development Engineering, continuing his career interest in leading customer-focused development of engineering plastic components and assemblies. In 2003, he joined BASF Corp. as Director of Commercial Technology for the company's North American Engineering Plastics unit, where today he is responsible for customer-focused technical support of both Automotive and Consumer/Industrial market areas, including Application Development and CAE, Material/Product Development, Advanced Application Development, and Application Testing functions. Over the course of his career, Minnichelli has been involved in the development and support of a wide variety of engineering plastic technologies and applications, including automotive bumper systems, body panels, door systems, air-intake manifolds, seating systems, structural components, and cooling-system components, as well as a variety of computer and business equipment, industrial, and consumer-goods applications.

Misencik, Stephen

Stephen A. Misencik entered the composites industry in 1984 as a Design Engineer for Boston Whaler® Boats. He subsequently held positions in engineering management with Glastron and Aquasport Boat companies and joined Super Hawaii Performance Boat Company as a Chief Engineer. From there, Misencik transferred to Tillitson Pearson (TPI) in 1991. In 1993, he started the Vacuum Infusion Process at TPI for all commercial and marine products. When he left TPI in 2004, his position there was VP-Design Engineering in the Structural Division. The following year he joined Martin Marietta Composites as VP-Product Development in Operations. He came to SAERTEX USA, LLC in 2007 as Technical Marketing Manager and has recently added the title of CTO of SAERTEX India.

Mörschel, Ulrich

Dr. Ulrich Mörschel has been the sole Managing Director at Textechno Herbert Stein GmbH & Co. KG since 1999. Previously, he held the position of Assistant Manager there from 1992 to 1999. Mörschel earned a Diploma degree in Physics at RWTH-Aachen University in Germany in 1985 with work on "Development of a Triple-Monochromator for the Time-Resolved Measurement of the Surface-Enhanced Raman Effect." From 1985 to 1986, he did civil service work. In 1987, he returned to school and in 1992 earned a Ph.D. from the First Institute for Physics at RWTH-Aachen with a dissertation on "Development of a Balloon-Borne Stratospheric Hygrometer."

Myers, Jon

Jon Myers is CEO and Co-Founder of Graphene Technologhies LLC. He has been active at the leading edge of technology for a number of years in areas including artificial intelligence, cloud computing and, more recently, graphene. Five years ago, he teamed up with two accomplished University of California – Berkeley scientists and inventors in an attempt to reframe the carbon dioxide debate from one characterizing CO_2 as an "undesirable" waste stream to one recognizing CO_2 as a resource. He is here to tell you about the result of this work.

Nguyen, Felix

Felix N. Nguyen holds a Ph.D. in Chemical Engineering from the University of Washington with a focus on colloids, surfaces/interfaces, and nanotechnology. He has been a Senior Research Scientist at Toray Composites (America), Inc. in Washington State since 2007. There, he has gained expertise in the design of innovative nanomaterials, surfaces, and interfaces and their integration in resins and prepregs for game-changing composite systems. This technology helps add multifunctionality, maximize performance, improve properties without the usual tradeoffs, and provide cost-effective processability. He holds 3 U.S. patents, has published several papers, and regularly speaks at conferences where he is recognized as a leading researcher in the field of multiphase, multi-scale composites.

Palmer, Tim

Tim Palmer is currently a Regional Manager for Application Engineering with MSC Software Corp. He has spent over 25 years in the computer-aided engineering (CAE) industry –a considerable portion of that time as a Chief Engineer, Director of Business Development, or as a Product Manager for CAE software products. Although he also has worked in testing and design, Palmer's career focus has been working directly with analysis methods and their applications to vehicle system analysis. He began his career at General Motors Corp. in the Corvette Development Group, after receiving a degree in Mechanical Engineering from Michigan Technological University. Palmer has authored or co-authored numerous technical papers on the subject of CAE applications, software architecture, and simulation methodology and holds U.S. patents for system-level simulation technology. In 2003, he was honored with the Henry Ford II Award for Excellence in Automotive Engineering by the Society of Automotive Engineers in recognition of his work in automotive simulation.

Pednekar, Vasant

Vasant Pednekar has been associated with LANXESS since 2005. In his current role as Application Development – Automotive, he is responsible for developing new applications using thermoplastic resins and composites with automotive OEMs and tier customers in the areas of automotive structures. In his previous role as CAE Engineer, he was relocated to Germany for 2½ years, where his responsibility included design activities and support including optimization using OptiStruct and HyperStudy, static/dynamic/crash analysis, and moldfilling analysis. He also was responsible for revamping and maintaining all LANXESS materials on the Campus database. He has worked for 6 years in field of Mold/Tool Design & Manufacturing in India. He completed his Master's degree in Industrial/Manufacturing Engineering at Wichita State University in the U.S. and Bachelor's degree in Industrial Engineering from University of Pune in 1995.

Pilette, Tom

Tom Pilette was named Vice President-Product & Process Development of Magna Exteriors and Interiors (MEI), an operating unit of Magna International, in November 2008. In his current role, Pilette oversees the expansion and development of MEI's core products, processes and materials. Through research and development and innovation initiatives, he is responsible for establishing and maintaining the company's competitive position in its core markets as well as supporting growth with new customers and in new regions around the world. Previously, Pilette was Group General Manager, Modularity Group for Magna Exteriors and Interiors, formerly Decoma International. During his 19-year career at Magna, he has held a number of different positions including Director of Sales, Divisional Assistant General Manager, and Lead Program Manager. Throughout his 26-year automotive career, Pilette has gained extensive product development and manufacturing experience focusing in the areas of body structures and energy management systems.

Powers, Scott

Scott Powers is currently Technical Development Manager for Trexel Inc. Previously, he has worked for BASF for 10 years (2 of those years in Germany), 4 years at Victrex, and he spent 10 years as an industry consultant. He has been a plastics engineer for 24 years and has done part design, process development, and material formulation for many industries, including automotive, defense, Formula 1 racing, and aerospace. His work won the 2011 SPE Automotive Innovation Awards Competition category and Grand Award prizes and the 2003 *Modern Plastics* Design of the Year Award. He holds an undergraduate degree in Plastics Engineering and Production Management from Ferris State University and a Master's degree in Technology Management from Illinois Institute of Technology. He is a member of the Society of Automotive Engineers and a Senior Member of the Society of Plastics Engineers.

Prusty, Manoranjan

Manoranjan (Mano) Prusty is currently Polyamides Product Development specialist Automotive in the Automotive Business Development Group at BASF SE in Germany, a position he has held since 2011. Previously, he worked as a Scientist in Polymer Research working in BASF's Central R&D on polymer blends and nanotechnology for engineering plastics. He began his career at BASF in 2006 after graduating with a Ph.D. in Material Science from Eindhoven University of Technology in the Netherlands, where his focus was on reactive extrusion.

Raman, Chandrashekar

Dr. Chandrashekar Raman is currently the Technology Platform Leader for boron nitride powder applications in Polymers at Momentive Performance Materials. In his current role, Raman leads a team at Momentive and key collaborators to develop new boron nitride products, optimized formulations, and processes for emerging applications in plastics. He also is a Lead Application Engineer at Momentive and works closely with customers to develop new applications for the company's BN products. Raman obtained his Ph.D. and M.S. degrees in Chemical Engineering from the University of Illinois-Urbana Champaign.

Reif, Manfred

Manfred Reif has worked as a Research Employee at Fraunhofer ICT since October 2002. He holds a Bachelor's degree in Mechanical Engineering from Karlsruhe University of Cooperative Education in Germany. Currently he heads the Group of Polymer Labs in the Polymer Engineering Department at Fraunhofer Institute of Chemical Technology and is working on lightweight solutions in the automotive sector for electromobility vehicles. Previously, Reif worked on materials and process development for LFT materials as well as development of LFT materials combined with local unidirectional and fabric fiber reinforcements for structural automotive applications at Fraunhofer ICT.

Rich, Andy

Andy Rich is currently President of Element 6 Consulting where he does business development and research engineering consulting for carbon fiber and carbon nanotube companies. He most recently was a Senior R&D Engineer at Plasan Carbon Composites. Before that he was a Business Development Manager for two carbon nanotube companies: at Nanocyl, he established their North American office and ran that for 2½ years, and he also was the Automotive Industry Market Development rep for Hyperion Catalysis. Rich also worked at DaimlerChrysler where he was responsible for close collaboration with USCAR's Automotive Composites Consortium (ACC), becoming Chair of the Processing Committee. Rich holds an MBA and a Master's Degree in Manufacturing Engineering from Boston University. His research work has directly contributed to the filing of 3 patents in carbon nanotube dispersions, and 1 in carbon fiber composites manufacturing. He is currently the SPE Composites Division Chair Elect.

Richardson, Rani

Rani Richardson is a Composites Product Specialist at Dassault Systèmes where she brings technical expertise and extensive real-life composites design and manufacturing experience to her positionthere. In this role, she consults with customers, particularly in the aerospace and automotive industries, concentrating on North American implementation and demonstrations for the CATIA V5 and V6 Composites Solutions. Prior to joining Dassault Systèmes, Richardson worked for nearly a decade at Magestic Systems, a leader in nesting and laser projection solutions, where she was Director of Operations. She is an active member of SAMPE (Society for the Advancement of Material and Process Engineering), NCC (National Composite Center), COE (CATIA Operators Exchange), SAE (Society of Automotive Engineers), SME (Society of Manufacturing Engineers) and SPE (Society of Plastics Engineers). She is also a frequent presenter at various industry conferences on the subject of composites.

Ritter, George

Dr. George W. Ritter, Principal Engineer at the Edison Welding Institute (EWI) in Columbus, Ohio, has over 30 years' industrial experience with specialization in composites, plastics, adhesives bonding systems, and processes related to joining of plastics-to-metals and polymer welding. His current focus is on composites-to-metals bonding with adhesives, advanced thermoplastic welding, weldbonding of metal structures, and applications of structural adhesives in aerospace, automotive, and medical-device manufacturing. EWI is the largest organization in North America dedicated to the advancement of materials joining technologies. It serves client companies worldwide in developing new welding, brazing, soldering, and adhesive-bonding processes involving all materials. The organization maintains in-house capabilities in allied technologies including non-destructive evaluation (NDE), materials science, design, stress analysis, thermal analysis, and mechanical testing.

Schaake, Richard

Richard Schaake obtained his Ph.D. degree from the Technical University of Eindhoven in 2006 on the tribology of polymers. Since 2006, he has been employed at the SKF Engineering & Research Centre where he has worked on rubber, thermoplastics, and composites. One of his key research activities focuses on characterizing and describing the behavior of these materials for use in SKF proprietary modeling tools.

Serrano, Juan

Mr. Juan Camilo Serrano is an Engineering Associate for PPG Fiber Glass Science and Technology. His work is focused on the development of new applications for composite materials in the areas of renewable energies, infrastructure, and defense. Serrano has 10 years of experience in composite materials and structures and has held various roles in materials development, structural design, and finite-element analysis of a wide variety of composite structures. He holds a B.S. degree in Mechanical Engineering from UDLA in Bogota, Colombia, an M.S. degree in Materials Engineering from the University of Alabama at Birmingham, and an MBA from the University of Massachusetts.

Smock, Doug

Doug Smock, who has been writing about plastics technology since the 1980s, including coverage of 9 K Fairs and 9 National Plastics Expositions, started *TheMoldingBlog.com* in 2010 to cover technical insights on plastics. He also reports for *PlasticsToday.com*. He is the former Chief Editor of *Plastics World* and *Purchasing* magazines (RBI) and the former Editorial Director and Associate Publisher of *Modern Mold and Tooling* (McGraw-Hill). Smock is co-author of 2 leading books on supply-chain management: Straight to the Bottom Line (2005, J. Ross Publishing) – now on its second printing – and On-Demand Supply Management (2007, J. Ross Publishing). He holds a Bachelor's degree from Case Western Reserve University.

Spiegel, Jonathan

Jonathan Spiegel is a Senior Engineer at Polystrand. He holds a B.S. degree in Applied Physics from the Georgia Institute of Technology, and has worked as an engineer in the high-performance automotive aftermarket for over 25 years, primarily in the field of suspension and chassis design. He first began developing leaf-spring applications with thermoset composite materials with Gordon Composites in 1989, and is currently developing high-performance thermoplastic composites and applications at Polystrand.

Stagner, Jacqueline

Jacqueline Stagner is currently a postdoctoral fellow in the Civil and Environmental Engineering Department at the University of Windsor. Her current scope of research is studying the recyclability of polymeric automotive components from end-of-life vehicles. She is also a Sessional Instructor in Mechanical Engineering at the University of Windsor, and is involved in various teaching, learning, and outreach projects at the university. Prior to her current position, Stagner was a graduate student at Michigan State University, attaining a Ph.D. in Materials Science and Engineering, where she performed research on starch-based biodegradable polymers.

Sthenken, Christophe

Not available at press time.

Tajvidi, Mehdi

Mehdi Tajvidi has over 10 years of international experience working with natural fiber plastic composites at organizations such as the Forest Products Laboratory, in Madison, Wisconsin, U.S.A., the University of Tehran, Iran, the University of Tokyo, Japan, and the University of Waterloo, in Waterloo, Ontario, Canada. His areas of expertise are mechanical properties of composite materials, structure-property relationships, viscoelastic behavior, and dynamic mechanical analysis. After completing his Ph.D. program in Natural Resources Engineering at the University of Tehran on the viscoelastic properties of natural fiber thermoplastic composites in 2003, Tajvidi worked as a faculty member at the Department of Wood and Paper Science and Technology, the University of Tehran for 7 years doing research on formulation, physical and mechanical characterization, and durability of natural fiber plastic composites, as well as teaching relevant courses leading to the publication of over 60 scientific papers in major academic journals. Between 2007 and 2009, Tajvidi worked at the Department of Biomaterials Sciences, the University of Tokyo, as a Visiting Professor working on the recyclability assessment of natural fiber plastic composites. Having moved to Canada in 2011, he is currently a Research Associate working in the Department of Chemical Engineering, University of Waterloo. His current research focus is on the temperature-dependent viscoelastic properties of natural fiber plastic composites intended for automotive applications.

Vaidya, Uday

Dr. Uday Vaidya is a Professor and Director of the Materials Processing and Applications Development (MPAD) Center for Composites at the University of Alabama at Birmingham (UAB). The UAB MPAD Center works closely with industry for applications-development support and composites R&D leading to commercialization. Vaidya has 24 years of experience in the design, analysis, application development, and processing of composite materials. He also has published a comprehensive book on Composites for Automotive, Mass Transit and Transportation.

Webb, Jeff

Jeff Webb has worked at Ford Motor Co. for 18 years – 10 years of which he has been the Instrument Panel & Console Technical Specialist. He has also held positions in Design & Release, Quality, Advanced Technology, Global Core Engineering, and is currently overseeing all Interiors CAE efforts for Ford North America. He holds Bachelor's and Master's degrees in Engineering from Michigan Technological University and an MBA from Wayne State University.

Williams, Dan

Dan Williams is currently Product Manager for the Automotive Industry at Granta Design – the materials information technology company. He has 11 years of experience in engineering software, and has worked with dozens of leading engineering organizations – in aerospace, automotive and other industries – to solve challenges related to materials information management and material selection.

Wyzgoski, Michael

Dr. Mike Wyzgoski is a consultant to the American Chemistry Council (ACC) in the area of Predictive Engineering, interfacing with multiple universities and government labs, and conducting ACC-sponsored workshops on this topic. He retired from Delphi Corp. in 2006 after managing the Polymers Group and the Polymer Processing Groups within the Delphi R&D Center for 8 years. Prior to transferring to Delphi, he was employed at General Motors' R&D for over 25 years, during which time he conducted and directed research on understanding and predicting polymer-fracture mechanisms such as impact, fatigue, and environmental stress cracking. Since the mid-1990s, Wyzgoski has authored over 40 publications and numerous presentations focusing on predictive engineering technologies for injection-molded plastic components. He holds a Ph.D. in Engineering Materials from the University of Michigan and a Bachelor's Degree in Engineering Science from Oakland University.

Zeng, Changchun

Dr. Changchun Zeng is currently an Assistant Professor of Industrial and Manufacturing Engineering of FAMU-FSU College of Engineering, and High Performance Materials Institute of Florida State University. Zeng's main research interests are synthesis and processing of materials using supercritical fluids for energy and environmental technology, plus polymer composites and nanocomposites. He received his Ph.D. desgree in Chemical Engineering from The Ohio State University in 2004. Prior to join FSU, he worked as a Senior Research Engineer at Hexcel Corporation, a major producer of carbon fiber and aerospace composite materials.

Zhang, Cong

Cong Zhang is currently a doctoral student in the Mechanical Engineering program at The Ohio State University, where his work focuses on the first-principle modeling of lithium-ion batteries for automotive applications, especially on the investigation of aging mechanisms of lithium-ion batteries. Zhang finished his undergraduate study in Zhejiang University in China where he obtained his Bachelor's degree in Polymer Science & Engineering. He subsequently obtained an M.S. degree in Mechanical Engineering at Baylor University. While at Baylor, Zhang's studies focused on modeling and simulation of flexible fiber motion and orientation in various flows, and expanding current modeling capabilities by formulating methods to predict the properties of flexible fiber-reinforced composites. This work aids in the design of fiber-reinforced composites to tailor the manufacturing process to create the desired bulk material properties. His overall research interest dwells on representing physical process and phenomena in material processing and manufacturing with accurate mathematical models.