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SAMPE Europe
c/o Mr. Rudolf de Ruijter
de Ruijter Consultancy
PO Box 557
NL-8440 AN Heerenveen
Netherlands

Phone: +31 6 51381263

conference@sampe-europe.org

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Block A - Materials & Processes

Session Leader: Prof. Luigi Torre PhD, University of Perugia, Italy



“New Low Heat Release Epoxy for Mass Transport Applications”

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by Dr. Emiliano Frulloni, Group CTO, Gurit, Switzerland

Emiliano joined Gurit as CTO and member of the Executive Committee by November 1, 2018. He has many years of technology and leadership experience in the advanced composites industry and holds an MBA from Manchester Business School and a PhD in Materials Science and Technology from University of Perugia. He joins Gurit from Solvay where he had the position of Global R&D Director Composite Product Development.



“Next Level of Fiber Placement Materials and Processes to address High Volume Production”

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by Dr. Andreas Erber, Head of Aerospace SGL Carbon, Germany

Andreas worked in several positions worldwide in the field of technology consulting and joined SGL Group in 2011. Since 2017, Andreas is in charge for the market segment Aerospace of SGL Group. Here he is responsible for the global strategy, technology roadmap, business development as well as profit and loss. Prior to that, Andreas headed the Lightweight and Application Center of SGL Group.



“Computational NDT Supports The Digital Thread”

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by Dr. Leslie Jay Cohen, HITCO Carbon Composites, USA

Dr. Leslie Cohen is the senior VP of military sales at HITCO Carbon Composites Inc. (Gardena, Calif.). He has authored more than 50 publications during his career, in the areas of advanced composite design and development as well as automation. Prior to joining HITCO, he served for 31 years at McDonnell Douglas, where, as senior director, he oversaw all business development for McDonnell Douglas Russia. He is a SAMPE Fellow, a recipient of the Society of Manufacturing Engineers' (SME) Jud Hall Composites Manufacturing Award and an Academician of the Russian Academy of Engineering. He holds BS, MS and Ph.D degrees from Carnegie Mellon University.

Block B - Automotive & Transport

Session Leader: Prof. Dr.-Ing. Frank Henning, Fraunhofer ICT & Karlsruher KIT, Germany



“CFRP Composite Product Research and Development for Rail Vehicles”

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by Dr. Sansan Ding, CRRC Qingdao Sifang Co., China

This presentation starts with the demand of rail transit vehicles for new composites and analyzes the future application prospect of composite materials in the field of rail transit vehicles. CRRC is the world's largest supplier of rail transit equipment with the most complete product lines and leading technologies. September 2018 CRRC released a new generation of carbon fibre metro vehicles “CETROVO”, which are developed with a lot of advanced new materials and technologies and are fully upgraded in energy conservation & environmental protection, comfort and intelligence compared to traditional metro. They are the latest technological achievements in Chinese metro field and represent the technical trend of future metro trains.



“Recent development in the field of cfrp in automotive applications”

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by Dr.-Ing. Thomas Henke, BMW, Germany



“The development of a car chassis using LFT-D carbon/thermoplastics and welding technology”

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by Prof. Dr. Takashi Ishikawa, National Composite Center Japan, Nagoya University, Japan

NEDO and Nagoya University National Composites Center (NCC) have succeeded in producing the world's first automobile chassis comprised of only thermoplastics. The chassis creation was accomplished by using an LFT-D construction method that involves kneading thermoplastic resin and carbon fiber. As a result, it is now possible to have an integrated automated production method ranging from supplying the materials to the final production, which could contribute significantly to component cost reduction. This is likely to reduce CO2 emissions by automobiles. A contribution to solving the world's environmental problems.



“Hydrogen Storage for Fuel Cell Electric Vehicles (FCEV's): the next big challenge for the composites industry?”

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by Axel Seifert, Plastic Omnium New Energies, Belgium

Axel Seifert studied mechanical engineering at the RWTH Aachen, focusing on automotive technologies and composite processing. He discovered the potential of computer controlled filament winding and began to write the process simulation software “CADWIND”. In 2010, he became Managing Director of Optimum CPV world-wide active to improve filament winding skills. In 2017, Optimum CPV was acquired by Plastic Omnium, a French Tier 1 supplier for the automotive industry. The mission is to improve the technology of hydrogen storage tanks in view of the breakthrough of Fuel Cell Electric Vehicles (FCEV's).

Block C - Challenging Applications

Session Leader: Prof. Dr.-Ing. Frank Henning, Fraunhofer ICT & Karlsruher KIT, Germany



“Automated 3D fiber layup concepts based on Fiber Patch Placement technology”

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by Thorsten Gröne, Cevotec, Germany

Thorsten Gröne is CEO and co-founder of Cevotec. Prior to Cevotec, he worked as a strategy consultant for clients in the chemical industry and lead international consulting projects, designing competitive and growth strategies as well as implementing M&A projects. Thorsten holds an MBA from IESE Business School as well as a Diploma from the European School of Business (ESB) and has built up a worldwide network through his international assignments and education.



“Natural fibre composite in automotive”

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by Per Mårtensson, CSO Bcomp, Switzerland

Bcomp is a leading natural fibre composite innovator for automotive, naval, race and space. Within the automotive cluster Bcomp collaborates with different tiers to increase the structural efficiency and decrease the weight of various parts in the vehicles.



“How to turn Composites into GOLD? Development of the best Olympic track bike ever”

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by Rob Lokate, Pontis Engineering, Netherlands

Pontis is co-developer of a revolutionary track bike for the Tokyo Olympic Games in 2020. This new composite aerodynamic bike will enable the Dutch Olympians to achieve faster times, as every bike is specifically tailored to each individual cyclist.

Rob translates (product) ideas into intelligent composite solutions. He specializes in the structural analysis and optimization of light-weight composite products and is as such the “sports specialist” within Pontis Engineering and studied Aerospace Engineering at TU Delft.

Block D - Aerospace

Session Leader: Arnt R. Offringa M.sc., GKN Fokker



“Efficiency in Aerospace composite structures manufacturing on Airbus programs”

N/A

by Chantal Fualdes, Airbus, France



Chantal Fualdes is the AIRBUS Head of Airframe Certification in AIRBUS and executive expert in composite airframes. She joined Airbus in 1986 and was involved in the development of composite structures on various Airbus programs from A320 to A350, as well as A400M. She has worked on the development of different components, movables, keel beam panels, centre wing boxes, wings at various stage of development, production and in service. On the A350 she was leading the development of all composite components, from materials qualification, design selection, method analysis development, and she was responsible for the overall composite structure certification.



“Freight Aeroplane Transport Efficiency – the ANTONOV Outlook”

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by Mr. Oleksandr DONETS, President, ANTONOV State-owned Enterprise, Ukraine



Oleksandr Donets, after having graduated in 1988 from Civil Aviation Engineers Institute of Kiev, has over 30 years experience working at ANTONOV State-owned Enterprise in charge of the ANTONOV aircraft serial production, maintenance and operation. Now he is the President of ANTONOV.



General key-note

“Highlights of the SAMPE Material Forecast Forum”

As SAMPE celebrates its 75th anniversary, SAMPE North America produced a study of what the materials community will look like in the future. How can technical societies, like SAMPE, best engage and broaden in this changing environment? She will present the highlights of the SAMPE Material Forecast Forum.

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by Karin Anderson, SAMPE North America President

Karin Anderson recently relocated to Charleston, SC for The Boeing Company. Ms. Anderson has engineered aircraft structures using carbon fiber systems for nearly 30 years including the B2 bomber, F22 fighter, AirBorne Laser, and the Boeing 787. Before returning to Boeing, she also worked on various carbon fiber aircraft programs for Bombardier, Embraer, Gulfstream, NORDAM, The Spaceship Company, Sierra Nevada, Aviation Partners-Boeing, and IAI.