

SAMPE Europe

SETEC 11 LEIDEN

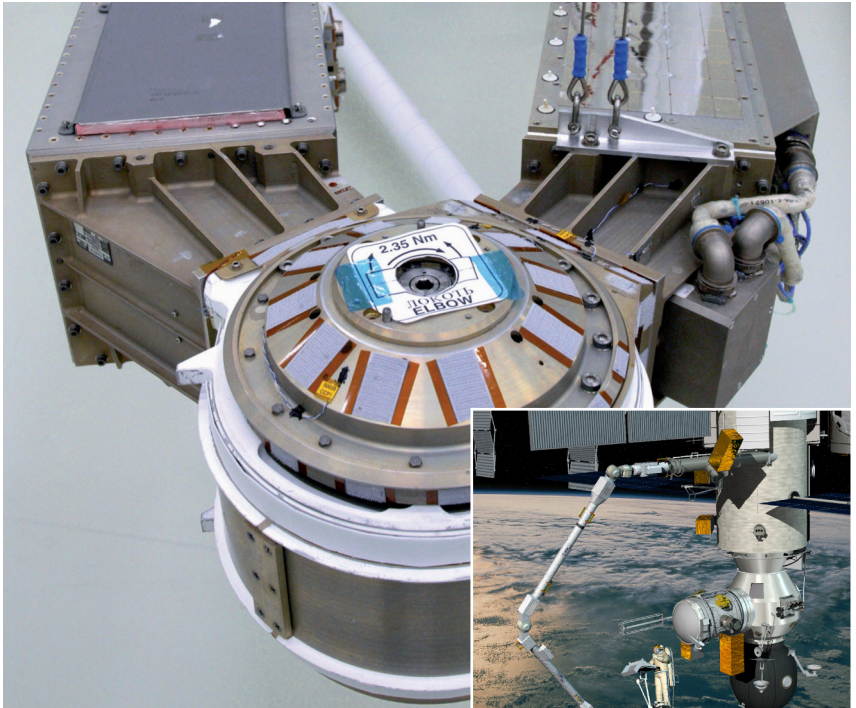
SAMPE EUROPE Technical Conference
and «Table-Top» Exhibition

September 14th – 16th 2011



Hotel Holiday Inn
Leiden, the Netherlands

Advanced Composites, The integrated System



By courtesy of Dutch Space

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SETEC 11 LEIDEN Conference & Table Top Exhibition
Preliminary Programme, Registration & Booking Form

SETEC 11 LEIDEN – At a Glance – Session & Papers

Wednesday Sept, 14th. 2011		
08.00 - 16.30h Registration		
09.00 - 18.15h Sessions		
09.00 - 09.45h		
B. Beral, President SAMPE Europe -Opening SETEC 11		
Ben Droste Welcome address		
KEY-NOTE 1	Use of Composites for Space Vehicles	C. Stovrinidis
09.45 - 10.15h Coffee Break		
10.15 - 12.15h Session 1		
Session 1A		Session 1B
Space 1		Modelling & Testing
35, 55, 61, 69		6,7,27,67
<i>H. Crijjssen</i>	<i>Chairmen</i>	<i>R. Akkerman</i>
12.15 - 13.45h Lunch		
13.45 - 15.45h Session 2		
Session 2A		Session 2B
TAPAS		Repair
29, 30, 36, 63		58, 62, 73, 84
<i>B. Beral</i>	<i>Chairmen</i>	<i>J. Degrieck</i>
15.45 - 16.15h Coffee Break		
16.15 - 18.15h Session 3		
Session 3A		Session 3B
Automation 1		Design
16, 23, 32, 52		13,14,34,40,41
<i>K. Drechsler</i>	<i>Chairmen</i>	<i>L. Cohen</i>
19.30 - 22.00h SETEC 11 Dinner		

Thursday Sept. 15th. 2011		
08.00 - 16.30h Registration		
08.15 - 08.45h	KEY-NOTE 2	
KBE the missing link for Design Evolution		M.J.L. van Tooren
Session 4A	09.00 - 11.00h	Session 4B
Infusion & RTM		Thermoplastic
8, 10, 37, 68		12, 39, 43, 48
<i>A. Mills</i>	<i>Chairmen</i>	<i>H. Bersee</i>
11.00 - 11.30h Coffee Break		
11.30 - 12.45h Session 5		
Session 5A		Session 5B
K B E *		Tooling
25, 51, 85		53, 79, 81
<i>M. Van Tooren</i>	<i>Chairmen</i>	<i>E. Shahidi</i>
12.45 - 14.15h Lunch		
14.15 - 16.15h Session 6		
Session 6A		Session 6B
Automation 2		New Materials
21, 28, 46, 76		11, 18, 47, 80
<i>C. Weimer</i>	<i>Chairmen</i>	<i>I. Verpoest</i>
16.15 - 16.45h Coffee Break		
16.45 - 18.15h Session 7		
Session 7A		Session 7B
Space 2		Joining & Assembly
45, 64, 65		22, 44, 49
<i>R. Bureo Duca</i>	<i>Chairmen</i>	<i>L. Muijs</i>

* Knowledge based Engineering

Total 2 Key-Notes, 53 papers

SAMPE EUROPE SETEC 11 Leiden

Technical Conference, Table Top Exhibition and Plant Visit Tours

SAMPE Europe and SAMPE BENELUX are pleased to present you the Preliminary Programme of SETEC 11, Technical Conference, Table Top Exhibition and Plant Visit Tour to be held on September 14th – 16th 2011 at the Holiday Inn Hotel in NL-2332 KG Leiden

Based on the defined «Leitmotiv» of «Advanced Composites, The integrated System» 52 papers and 2 Key-Notes have been appointed for presentation on Wednesday and Thursday, Sept. 14th – 15th, in two parallel sessions during the two days of conference.

On Tuesday evening, Sept. 13th, at 18.30 pm – a Welcome-Reception will be given to all Table Top Exhibitors and Conference attendees who have already reached the Holiday Inn. In parallel to the SETEC 11 Conference a Table Top Exhibition with 30 units, located in the large atrium of the Holiday-Inn Hotel will be organized for renting at attractive rates. Those Table Top Exhibition units will provide to the exhibiting Companies, Research Centers and Universities an excellent possibility to make public and to present their latest achievements, projects and new material-systems. In addition all Exhibitors get the possibility provided to have the Conference Attendees close to their Table Tops during the Coffee Breaks and the two Lunches. The SETEC Conference Dinner will be held on Wednesday evening, Sept. 14th 2011, at The Restaurant of Holiday-Inn Hotel in Leiden. On Thursday evening, Sept. 15th at 20.00 pm, the «Leiden Host Dinner» will be held in a Historical House of downtown Leiden with the participation of representatives of the Major office of the City of Leiden and from the University of Leiden, known as the oldest of all Dutch Universities. On Friday, September 16th the Plant Visit Tours will be held, offering to all Delegates the possibility to visit one of five proposed Plant Visit Tours – which for the first time have been organized as a one-day tour inclusive lunch. Participants can select the company of their preference to visit, with reference to the respective registration form, and get the possibility proposed at the end of the tour to become de-loaded either at the Amsterdam Airport or to returned to Hotel Holiday Inn in Leiden by Tour-Bus.

Thanks to a very extended range of Sponsors for SETEC 11 Leiden, all services from the Welcome-Reception up to your transfer to Amsterdam Airport will be included in the Standard Conference Registration Fee. SAMPE Europe is very pleased about this very appreciated support of the Sponsors – to be named here below by presenting their Logos.

SAMPE Europe do look forward to welcome you as an appreciated attendee to SETEC 11 in Leiden!



PRELIMINARY PROGRAMME

WEDNESDAY, Sept. 14th 2011

08.00 – 16.30 Registration

09.00 – 18.15 Sessions

09.00 – 09.45 **Opening SETEC 11, Bruno Beral, SAMPE Europe President
Welcome Address, Mr. Ben Droste**

KEY-NOTE 1 – Use of Composites for Space Vehicles

Speaker: Mr. C.Stavriniadis

09.45 – 10.15 **Coffee Break at Table Top Exhibition Area**

10.15 – 12.15 **SESSION 1**

Session 1A – Space 1

Chairman: H. Cruijssen

P 35: Damage Detection in Composite Sub-Reflector Antenna based on Fibre Optic Sensor Technology. Speaker: A. Panopoulou, NPI, ESA/ESTEC University of Patras, Greece

P 55: Electrical Tomography as a Tool for the Damage Assessment of Composite Structures Speaker: A. Baltopoulos, ESA/ESTEC Noordwijk, The Netherlands

P 61: Nano Composite meeting the Demands of Space Applications. Speaker: R. Bureo Ducal, ESA/ESTEC, Noordwijk, The Netherlands

P 69: Fiber Steering for Space Sandwich Structures. Speaker: M. Kremers, AIRBORNE Composites BV, Den Haag, The Netherlands

12.15 – 13.45 **LUNCH at Table Top Exhibition Area**

13.45- 15.45 **SESSION 2**

Session 2A – TAPAS

Chairman: B. Beral

P 29: The TAPAS Project: Introduction by Mrs. I. Houthuysen, Dutch Government (Agentschap NL) Speaker: A. Offringa, FOKKER Aerostructures BV Helmond, The Netherlands

Session 1B – Modelling & Testing

Chairman: R. Akkerman

P 06: Damage Initiation Thresholds in Textile Composites and Fatigue Life Limits Speaker: S.V. Lomov, KU Leuven University, MTM Department

P 07: Simulating Composite Crush Speaker: K.C. Indermühle, SIMULIA Providence, R.I., USA

P 27: Virtual Testing of Composites Speaker: W. Wilson, FOKKER Landing Gear B.V. Hoogeveen, The Netherlands

P 67: Structural Validation of FEM Simulations of a Safety-critical CFRP Aircraft Component Speaker: S. Janssens, ASCO Industries, Belgium

Session 2B – Repair

Chairman: J. Degriek

P 58: Design and Manufacture of Bonded Composite Repairs Speaker: R.J.C. Creemers, National Aerospace Laboratory, NLR, Amsterdam

P 30: Induction Welding of Thermoplastic Stiffeners on large Fuselage Panels
 Speaker: M. van Wijngaarden., KVE BV.
 Den Haag, The Netherlands

P 36: TAPAS: Thermoplastic stiffened Panels for Fuselage Application
 Speaker: A. Offringa, FOKKER Aerostructures BV
 Hoogeveen, The Netherlands

P 63: TAPAS AFP for Tailored Blanks and Stiffeners
 Speaker: M. Kremers, AIRBORNE BV
 Den Haag, The Netherlands

P 62: Repair of Primary Aircraft Structures with Advanced Hybrid Materials
 Speaker: J.W. Gunnink, GTM Advanced Products & Delft University of Technology

P 73: Low Cost Tools for Large Repair Structures, Prototypes or One-off Productions
 Speaker: F. Collombet, Toulouse University Institut Clément Ader, F-31077 Toulouse

P 84: Repair of Primary Composites Structures
 Speaker: S. Waite, EASA European Aviation Safety Agency, D-50452 Köln, Germany

15.45 – 16.15

Coffee Break at Table Top Exhibition Area

16.15 – 18.15

SESSION 3

Session 3A – Automation 1

Chairman: K. Drechsler

P 16: Laser assisted Processing of Thermoplastic Composite Structures
 Speaker: C. Kok, AFPT BV.
 Sprang-Capelle, The Netherlands

P 23: A New Fibre Placement Technology for flexible 2D and 3D Hybrid Preforms
 Speaker: L. Friedrich, Faserinstitut Bremen e.V.
 D-28359 Bremen, Germany

P 32: Thermoforming Process with new Tempered Tooling Design
 Speaker: C. Peters, Faserinstitut Bremen e.V.
 D-28359 Bremen, Germany

P 52: Press Forming of tailored CFRTP Products
 Speaker: T. Stol, Dutch Thermoplastic Components BV., Almere, The Netherlands

Session 3B – Design

Chairman: L. Cohen

P 13: Non-destructive Characterization of the Elastic Properties of Orthotropic Composites with Ultrasound. Speaker: W. van Paepegem, University of Gent, Material Science & Engineering Dept., B-9052 Zwijnaarde, Belgium

P 14: Low-Cost Composite Structures Pitfalls and How to avoid them
 Speaker: A. Green, Israel Aerospace Industries LTD., Tel-Aviv, Ben Guiron International Airport

P 34: Pneumatic Actuation Tubes using flexible Matrix Composites for Morphing Aerostructures
 Speaker: J. Kirm, EADS Innovation Works Aeromechanic Systems, D-85221 Ottobrunn

P 40: Towards Structural Fatigue Evaluation in Composite Structures
 Speaker: R.C. Alderliesten, Delft University of Technology, Delft, The Netherlands

P 41: Application of Bonded Metal and Hybrid Straps for improving Damage Tolerance of Thin Metallic Skins.
 Speaker: R. Rodi, Delft University of Technology, Delft, The Netherlands

19.30 – 22.00

SETEC 11 CONFERENCE DINNER
 Restaurant of Holiday Inn Hotel

THURSDAY, Sept. 15th 2011

08.00 – 16.30

Registration

08.15 – 18.15

Sessions

08.15 – 08.45

**KEY-NOTE 2 – KBE, Knowledge Based Engineering,
The missing Link in Design Evolution, Speaker: Mr. M.J.L. van Tooren
SESSION 4**

09.00 – 11.00

Session 4A – Infusion & RTM

Chairman: A. Mills

P 08: Fast Impregnation of Complex Shapes for the Manufacturing of High Performance Composites and its associated Tooling. Speaker: C. Dransfeld, Fachhochschule Nordwest-Schweiz, CH-5210 Windisch

P 10: Quality Assurance System for Aircraft Structural Profile Preforms Complex Shapes

Speaker: F.Weiland, EUROCOPTER Deutschland GmbH., D-81663 Ottobrunn

P 37: Application of Composite Material for the Manufacturing of Large Transport Aircraft Slats

Speaker: B. Poulaert, SONACA SA., B-6041 Gosselies, Belgium

P 68: A Comparison of RTM and SQRTM Out-of-Autoclave-processes for the Manufacturing and Qualification of integrated Structures. Speaker: A. Bertin, COEXPAIR SA., B-5190 Spy, Belgium

11.00 – 11.30

Coffee Break at Table Top Exhibition Area

11.30- 12.45

SESSION 5**Session 5A – K B E**

Chairman: M. Van Tooren

P 25: Test-Analysis Correlation Environment for Composite Aerostructures

Speaker: S. Manzato, LMS International, B-3001 Leuven, Belgium

P 51: Design and Analysis of Modified Support Structure for a Star Sensor of a Satellite

Speaker: S. Shreyas, R.V. College of Engineering., Bangalore – 560059, Karnataka, India

P 85: Multidisciplinary Design Optimization and Knowledge-based Engineering for Integrated Wing Design. Speaker: R. d'Ippolito, NOESIS Solutions Belgium

Session 4B – Thermoplastic

Chairman: H. Bersee

P 12: Influence of Specimen Geometry on the Fatigue Behaviour of a Carbon Fabric reinforced PPS
Speaker: I. De Baere, University of Gent, Materials Science Dept., B-9052 Gent

P 39: Thermoforming of Sandwiches into Complex Shapes.

Speaker: J. Krena, LETOV Letecká Vyroba Ltd., Latecoere Group, CZ-199 02 Praha 9 - Letnany

P 43: AFP Technologies for High Performance Thermoplastics: Characterization of Mechanical Performance and Output Rate

Speaker: H.P.J. de Vries, National Aerospace Laboratory, NLR, Amsterdam, The Netherlands

P 48: Thermoplastic Compound Compression Moulding. Speaker: A. A. Jongbloed, Kok & Van Engelen Composites Structures BV., Den Haag, The Netherlands

Session 5B – Tooling

Chairman: E. Shahidi

P 53: Carbon Foam for Aerospace Composite Tooling. Speaker: K. Alam, Ohio University, Dept. of Mechanical Engineering, Athens, OH 45701

P 79: Molding Technology by Induction for Carbon Fiber Applications

Speaker: J. Feigenblum, RocTool, F-73375 Le Bourget-du-Lac, Cedex, France

P 81: Development of High-Accuracy Business Jet Rear Fuselage Tooling using Out of Autoclave Tooling Prepreg for In-Autoclave Applications
Speaker: E. Shahidi, Umeco Composites, ACG Group Heanor, Derbyshire, DE75 7SP, UK

12.45 – 14.15

Lunch at the Table Top Exhibition Area

14.15 – 16.15

SESSION 6**Session 6A – Automation 2**

Chairman: C. Weimer

P 21: Modelling of Automated Layup Processes for Improved Efficiency and Sustainability.

Speaker: D. Lukaszewicz,
Bristol, University Bristol, UK.

P 46: Overview of Novel Automation Technologies for an Efficient Production of FRP Structures.

Speaker: C. Ehinger, Technische Universität München, iwv Anwenderzentrum Augsburg, D-86153 Augsburg

P 76: Automated high rate Manufacture of Automotive Composites Structures via Compression Moulding.

Speaker: E. Shahidi, Umeco Composites Structural Materials, Heanor, Derbyshire, UK

P 28: Prospective Strategies for Composite Production.

Speaker: C. Greb, RWTH Aachen University, Institut für Textiltechnologie, Aachen, Germany

16.15 – 16.45

Coffee Break at Table Top Exhibition Area

16.45 – 18.15

SESSION 7**Session 7A – Space 2**

Chairman: R. Bureo Ducal

P 45: Composite Structures Developments in ESA for the Future Launcher Preparatory Programme.

Speaker: D. Jaredson, European Space Agency, ESA, Noordwijk, The Netherlands

P 64: RTM End Cap – Future Launcher Preparatory Programme ARIANE 5ME

Speaker: M. Kremers, AIRBORNE Composites BV, Den Haag, The Netherlands

P 65: Out-of-Autoclave Manufacturing of Large Integrated Structures using Thermoplastic Composite Materials.

Speaker: C.M.O. Brádaigh, Eire Composites, Teo., Indreabhán, Co. Galway, Ireland

Session 6B – New Materials

Chairman: I. Verpoest

P 11: All-aromatic Liquid Crystal Polymers for Improved Efficiency and Sustainability Cryogenic and High Temperature Composite Applications

Speaker: T.J. Dingemans, Delft University of Technology, Faculty of Aerospace Engineering Delft, The Netherlands

P 18: Processing and Characterization of PETI Composites fabricated by High Temperature VARTM.

Speaker: S. Ghose, National Institute of Aerospace, Hampton, VA 23666, USA

P 47: Thin Ply Technology for High Performance Composite Structures.

Speaker: G. Rocher, North Thin Ply Technology CH-1305 Penthalaz-Cossonay, Switzerland

P 80: Suppression of Damage Development in Carbon Fiber/Epoxy Composites with Carbon Nanotubes. Speaker: L. Gorbatikh, KU University Leuven, MTM Department, B-3001 Heverlee, Belgium

Session 7B – Joining & Assembly

Chairman: L. Muijs

P 22: Optimizing Ultrasonic Welding of CF/PEI

Speaker: M. Barroso Romero, Delft Technical University, Delft, The Netherlands

P 44: ACROSOMA® 3-D Sandwich Panel Manufacturing, Design & Application Technology – Focus on Weight, Strength and Thermal Expansion.

Speaker: J. Verhaeghe, ACROSOMA, B-9160 Lokeren, Belgium

P 49: Investigation of a Hybrid 3D-Reinforced Joining Technology for Lightweight Structures

Speaker: A.C. Nogueira, Fraunhofer Institut Projektgruppe Funktionsintegrierter Leichtbau, D-86159 Augsburg, Germany

Thursday evening: 20.00 – 22.30

Leiden Host Dinner, Historical House in Down Town Leiden
Details to be announced in Final Programme

Venue of SETEC 11 LEIDEN

The Conference and Table Top Exhibition will be held at the Holiday-Inn Hotel in Leiden, Haagse Schouwweg 10 in NL-2332 KG Leiden, proposing a very spacious infrastructure for Conference and the Table Top Exhibition. The Holiday Inn is a 4 Star Hotel and by car easy reachable only approx 800 m from the exit of the closed-by Motorway A 44. The Hotel offers a parking space for 300 cars. Leiden is located at approx. 30 km from Amsterdam Airport and approx. 25 km from The Hague and offers an excellent link by Trains from the Airport Station to Leiden N.S. Main Station with approx 3 departure per hours in each way. Hotel Holiday Inn would be pleased to pick you up at the Leiden N.S. Rail Station by the Hotel owned Shuttle-Bus which can be ordered prior to arrival by phone to Tel. +31 71 53 55 555. The Hotel offers for all guest extended in-house sport facilities with an indoor swimming pool, an indoor Tennis-Court and Racket-Centre and a Gym-Room! Why not using those facilities during your stay?

The SETEC 11 Table Top Exhibition

The Table Top Exhibition SETEC 11 will consist of 30 Table Top Units proposed for renting at attractive rates to interested parties in the Atrium of the Holiday-Inn. The Welcome Reception, the four Coffee Breaks and the two Lunch will be served in The Table Top Exhibition Area to provide to the Exhibitors an excellent communication platform to create good conversation and relationship with all SETEC 11 delegates. The layout plan for the 30 unites of Table Tops and the renting conditions are defined on the enclosed separate renting form.

Hotel Accommodation

SAMPE Europe is proposing to the SETEC 11 attendee to get hotel accommodation at the Holiday-Inn Conference Hotel. Attractive quotations have been negotiated for conference attendees which are published on the enclosed reservation form, printed on the reverse side of the conference registration form. Your reservation request should be either faxed by you to the hotel – or you can get it remitted to SAMPE Europe for processing together with your Conference registration. The hotel rooms are rather spacious and well equipped. Complementary Hotels are available in Leiden and can be booked through Leiden Tourist Office under e-mail: info@vclleiden.nl

SETEC 11 Plant Visit Tours on Friday, Sept. 16th 2011

SAMPE Europe is very pleased to provide to all SETEC 11 attendees the opportunity to participate to one of five proposed Plant Visit Tours. Those visits are all scheduled for Friday September 16th with departure in the morning by five individual Buses, For the end of the Tours you have to define if you want to be brought by the bus to the Amsterdam Airport or if you return to the Holiday-Inn Hotel. Please define your mode on the Visit Tour Registration form. All participants of the plant tours will get an invitation for lunch as an integrated element of the tours. All details of the proposed 5 Tours are defined in the enclosed separate registration form.

SETEC 11 Conference Dinner

The SETEC 11 Conference will be held at the Restaurant of the Holiday-Inn Hotel on Wednesday, September 14th as from 19.30 pm.

SETEC 11 LEIDEN Host Dinner

All SETEC 11 attendees and Exhibitors will be invited to attend the Leiden Host Dinner to be organized on Thursday evening, September 15th - 20.00 pm – in an historical House of Down-Town Leiden, where representatives of the City of Leiden and from the University of Leiden will present their Welcome to the SETEC 11 Conference and its Attendees and to provide reports on Leiden's cultural and educational aspects.