7th EASN International Conference on Innovation in European Aeronautics Research

Final Agenda

Day 1
Tuesday, September 26th, 2017

Time		Room	Programme
8:00	18:30		Registration
9:30	9:40	Room AULA	**Welcome & Introduction** **by the Conference Chairmen Prof Zdobyslaw Goraj and Prof Spiros Pantelakis**
9:40	10:10	Room AULA	**"Opportunities and challenges for research in aeronautics within H2020"** Key-Note Speech by **Mrs Clara de la Torre** | Director for Transport, DG Research & Innovation, European Commission
10:10	10:40	Room AULA	**"Design & Research Philosophy in the Environment of Global Competition"** Key-Note Speech by **Dr Marian Lubieniecki** | Managing Director and Site Leader at GE Engineering Design Center (Institute of Aviation)
10:40	11:10	Room AULA	**"Aerospace Europe: strengthening collaboration & knowledge dissemination"** Key-Note Speech by **Mr Christophe Hermans** | President of the Council of European Aerospace Societies (CEAS)
11:10	11:40		Coffee Break

Room		ALPHA	FOXTROT	BRAVO	IKAR	AULA	CHARLIE	DELTA	PAPA
Session No		12.3	13.1	1.5	2.3	5.1	5.3	1.4	
Session Title		Support Actions for Coordinating Research in the Field of Aeronautics & Air Transport	Innovative Approaches in ATM / ATC	Innovative composite structure in aircraft design	Aeroelasticity & Unsteady Flows	Innovative Multifunctional Materials For Aeronautics	Structural Aspects in Aircraft Design	New Trends in Structural Health Monitoring of Aircraft	
Session Chair(s)		Dr Apostolos Chamos & Ms Irene Pantelaki EASN-TIS	Dr Jan Pfaff University of Stuttgart	Prof Maciej Bossak Institute of Aviation	Prof Zdobyslaw Goraj Warsaw University of Technology	Prof Vicenzo Tucci & Prof Liberata Guadagno University of Salerno	Mr Alexander Shanygin TsAGI	Dr Helge Pfeiffer KU Leuven	
11:40	12:00	**CATER project overview presentation** *Mr. Giuliano D'Auria* **CAPPADOCIA project overview presentation** *Mr. Fabien Marty*	**ADS-B based Air Traffic Performance Assessment: Develop New Metrics for Measuring ANSPs and airlines Flight Efficiency [68]** *Damian Ferrer, Javier López, Manuel Polaina, Marcos Sanz, Pablo Sánchez*	**Analysis of the possibility of implementing advanced composite technology for small enterprises on the example of the ilx-27 helicopter main rotor blades [178]** *Konrad Jerzy Kozaczuk*	**Turning Icaré II into a test platform – will the modifications affect aeroelasticity? [85]** *Andreas Strohmayer*	**The self-healing mechanism of micro-capsules embedded into aeronautic structural polymers and composites: A feasibility study [16]** *Panagiota V Polydoropoulou, Christos V Katsiropoulos, Andreas Loukopoulos, Spiros G Pantelakis*	**Aircraft horizontal tail plane (HTP) skin cover buckling analysis using finite element techniques [15]** *Juan Luis de la Gándara*	**Smart skins for structural health monitoring in aerospace applications [155]** *Jan Smilek, Ludek Janak, Ondrej Rubes, Zdenek Hadas*	
12:00	12:20	**OPTICS - Are we doing the right aviation safety research? [18]** *Joram Verstraeten, Barry Kirwan*	**An ATCo Psychological Model with Automation [79]** *Victor-Fernando Gomez Comendador, Patricia Lopez de Frutos, Eva Puntero Parla, Elena López Ballestín, José Juan Cañas, Pedro Ferreira, Rosa Arnaldo Valdçes, Alvaro Rodriguez Sanz*	**Experimental investigation of the curing behaviour of fibre composite structures with snap-cure polymer systems [248]** *Rafał Stanik, Michael Müller, Albert Langkamp, Maik Gude*	**GVT atypical approach of ICARE 2 [80]** *Wiesław A. Krzymień, Sławomir Cieślak*	**Development of self-healing mechanisms in aeronautical vehicles [158]** *Elisa Calabrese, Pasquale Longo, Annaluisa Mariconda, Marialuigia Raimondo, Carlo Naddeo, Luigi Vertuccio, Liberata Guadagno*	**A Simulation Investigation of Helicopter Ground Resonance Phenomenon [23]** *Jarosław Stanisławski*	**Highly non-linear sensing devices in structural health monitoring of aircraft [230]** *Helge Pfeiffer, Hans Sekler Sevilia Sunetchiieva, Christ Glorieux, Martine Wevers*	
12:20	12:40	fcenci	**Conflict-resolution algorithms for separation minima definition of RPAS in a non-segregated airspace [367]** *Javier Alberto Pérez Castán, Fernando Gómez Comendador, Rosa Arnaldo Valdés, Lara Hernández Gila, Jaime Torrecilla Puebla*	**A perspective on the use of thin ply laminates in the aeronautic industry: challenges and opportunities [273]** *Giuseppe Catalanotti*	**Flutter analysis of icaré II XXL - influence of auxiliary engines on wing tips [55]** *Wojciech Celestyn Chajec*	**Nanoscale Electrical Characterization by Tunneling AFM (TUNA) and Flammability Behaviour of a New Aeronautical Multifunctional Graphene/POSS Epoxy Resin [169]** *Marialuigia Raimondo, Liberata Guadagno, Carlo Naddeo, Vito Speranza, Khalid Lafdi, Leila Bonnaud, Oltea Murariu, Philippe Dubois*	**Development of rational hybrid fuselage structure for prospective civil aircraft [88]** *Alexander Nikolaevich Shanygin, Evgeny Arkadyevich Dubovikov, Ivan Olegovich Kondakov, Victor Pavlovich Fomin*	**Defect detection in vibrating structures using features of nonlinear ultrasonic modulation [231]** *Sevilia Sunetchiieva, Helge Pfeiffer, Martine Wevers, Christ Glorieux*	
12:40	13:00	**RINGO project overview presentation** *Dr. Reiner Suikat*	12:40 - 13:00 **Innovation concepts for the transport of passengers and cargo for short distances in all weather conditions based on autonomous platforms [129]** *Krzysztof Stanisław Szafran, Ireneusz Kramarski* 13:00 - 13:20 **Procedural Wind-Based Reduction of Separation on Final Approach: Design, Safety Assessment and Application to Vienna Airport [339]** *Ivan De Visscher, Frederic Rooseleer, Vincent Treve, Günther Borek*	**AFP Composite Wing Skin Development for Commuter Category Aircraft [199]** *Malgorzata Zalewska*	**Comparison of a flutter calculation methods based on GVT results [52]** *Wojciech Celestyn Chajec*	**Applications of composites materials for structural parts of aircraft with self-diagnosis capability [307]** *Giovanni Spinelli, Luigi Egiziano, Patrizia Lamberti, Raffaele Raimo, Vincenzo Tucci, Liberata Guadagno, Luigi Vertuccio*		**Development of a monitoring technique for the detection and quantification of water and ice in the fuel tanks of an aircraft [232]** *Michael Stamm, Helge Pfeiffer, Christ Glorieux, Andy Vanaerschot, Martine Wevers*	

Time		Room	Programme
13:00	14:30		Lunch Break
14:30	15:00	Room: AULA	**"EREA – a major contributor to the implementation of ACARE's SRIA"** Key-Note Speech by **Mr Bruno Sainjon** | Chairman of Association of European Research Establishments in Aeronautics (EREA)

Room		ALPHA	FOXTROT	BRAVO	IKAR	AULA	CHARLIE	DELTA	PAPA
Session		12.1	12.5	12.6	2.3	11.1	5.3	5.1	
Session Title		FUTURE Sky Session	RADIAN Session - AERO-UA	EFFICOMP Session	Aeroelasticity & Unsteady Flows	Modelling and Simulation of Flight Physics - Part I	Structural Aspects in Aircraft Design	Innovative Multifunctional Materials For Aeronautics	
Session Chair(s)		Mr Josef Kaspar VZLU	Mr Gerard Pauly Fraunhofer IFAM	Dr Jacques Cinquin AIRBUS Group Innovation	Prof Zdobyslaw Goraj Warsaw University of Technology	Prof Shia-Hui Peng Swedish Defence Research Agency, FOI	Mr Alexander Shanygin TsAGI	Prof Vicenzo Tucci & Prof Liberata Guadagno University of Salerno	
15:10	15:30	**Future Sky – Aviation Research for Tomorrow** *Josef Kaspar*	**Facilitating Collaboration in ReseArch and Development to Foster Further Innovation in European AeroNautics - RADIAN [251]** *Thilo Schönfeld, Miriam De Angelis, Thilo Schönfeld, Angela Vozella, Irene Pantelaki, Tõnis Eerme, Igor Rybalchenko, Roland Gurály, Adrian Huta, Martin Spieck*	**Assessment of Hybrid Heating for Curing of CFRP Structures [130]** *Philipp Hilmer*	**Static aeroelastic behavior of composite missile fin with interlaminar and intralaminar damage [59]** *Ozge Ozkaya, Altan Kayran*	**H2020 Project IMAGE: Innovative Methodologies and Technologies for Reducing Aircraft Noise Generation and Emission** *Shia-Hui Peng, Wenchao Huang*	**Development of joints for reliable connection of structures with lattice and semi-monocoque layouts [89]** *Evgeny Arkadyevich Dubovikov, Alexander Nikolaevich Shanygin, Andrey Vladimirovich Chernov, Danil Yuryevich Fomin, Yury Sergeevich Mirgorodsky*	**Development of adhesives, for aircraft structures [200]** *Luigi Vertuccio*	
15:30	15:50	**Aircraft safety model development and integration in a risk observatory [25]** *Pierre Bieber Sylvain Metge Marion Morel, Julien Plé*	**Facilitating Collaboration in ReseArch and Development to Foster Further Innovation in European AeroNautics - RADIAN - 2**	**Development of new processes for aerospace structural composite part manufacturing with affordable cost and high ramp up capability within EFFICOMP project [245]** *Jacques Cinquin, Patrice Lefebure*	**Piston-electric propulsion system as reliable alternative for traditional piston engine configuration [122]** *Bartosz Dziugiel*	**Numerical Studies of the Active Flow Control on the Wing Tip Extension** *Petr. Vrchota, Ales Prachar,P. Iannelli, V. Ciobacam, Shia-Hui Peng, M. Tormalm*	**Metal-composite joints based on mechanical metamaterials for prospective pro-composite airframes [90]** *Ivan Olegovich Kondakov, Dmitry Vedernikov, Ivan Vladimirovich Mareskin*	**Multi-Functional Nanotechnology Integration For Aeronautical Structures Performance Enhancement [244]** *Massimo Viscardi, Maurizio Arena, Liberata Guadagno, Luigi Vertuccio, Giuseppina Barra*	
15:50	16:10	**An Insight on EREA vision for the Environment Protection and the Energy Supply [298]** *Marcello Kivel Mazuy, Marcello Amato*	**Facilitating Collaboration in ReseArch and Development to Foster Further Innovation in European AeroNautics - RADIAN - 3**	**Investigation of a new out of autoclave placement process, mould concepts/release strategies and reusable heated bagging material [262]** *Klaus Heudorfer, Mathias Engelfried, Julian Fial, Stefan Carosella, Peter Middendorf*	**Active suppression of aeroelastic phenomena by robust and artificial intelligence control methods [220]** *Franciszek Adam Dul*	**AFLoNext WP3 - Control Means for Vibration and Aeroelastic Coupling** *Christophe Mack, Ramón Abarca-Lopez, Jan Schwochow*	**Method of buckling analysis of hybrid rods at preliminary designing of wing caisson with truss structural layout [95]** *Victor Pavlovich Fomin, Ivan Vladimirovich Mareskin, Inna Sergeevna Sidorova*	**Tuning The Interaction Between Carbon Nanoparticles And Epoxy Matrix For Improving Multi-Functionality Performance Of Structural Nanocomposites [293]** *Giuseppina Barra, Luigi Vertuccio, Liberata Guadagno, Massimo Viscardi, Maurizio Arena*	
16:10	16:30	**Without communities, noise wouldn't be annoying [225]** *Laurent Leylekian*	**Facilitating Collaboration in ReseArch and Development to Foster Further Innovation in European AeroNautics - RADIAN - 4**	**Investigation on Energy Director-less Ultrasonic Welding of Thermoplastic to Thermoset Composites [338]** *Eirini Tsiangou*	16:10 - 16:30 **Aeroelasticity-teaching at Polish universities [274]** *Maciej Bossak* 16:30 - 16:50 **Importance of dynamic stall modeling in aeroelastic analysis of helicopter rotor [280]** *Adam Sieradzki*	**Analyzing the Fluid-Structural Interactions of a Main Landing Gear Door during Take-off** *Andreas Winkler, Carlo Aquilini*			

Time		Programme
16:30	17:00	Coffee Break

Room		ALPHA	FOXTROT	BRAVO	IKAR	AULA	CHARLIE	DELTA	PAPA
Session		11.1	12.7	5.3	12.4	8.3	3.1	8.4	2.2 b
Session Title		Modelling and Simulation of Flight Physics - Part I	RINGO Session	Structural Aspects in Aircraft Design	R&D Research in the Field of Aeronautics & Air Transport	Aerial Monitoring & Surveillance of Polar Areas	Multi Disciplinary Optimisation	Autonomy & Automation in UAS Systems	Wing Optimisation
Session Chair(s)		Prof Shia-Hui Peng Swedish Defence Research Agency, FOI	Dr Reiner Suikat DLR	Mr Alexander Shanygin TsAGI	Dr Daniele Violato INEA	Prof Miroslaw Rodzewicz Warsaw University of Technology	Prof Tomasz Goetzendorf-Grabowski Warsaw University of Technology	Prof Zdzislaw Gosiewski Institute of Aviation	Prof Zdobyslaw Goraj Warsaw University of Technology
17:00	17:20	**Experimental And Computational Investigation Of The Flow Around A Helicopter Rotor Blade [308]** *Katarzyna Anna Surmacz, Jeffrey Bons*	**The RINGO CSA - shaping the future for research infrastructure [271]** *Reiner Suikat, Pierre Rebel, Francesco Ferigno, Paola Lanzi, Christophe Hermans, Irene Pantelaki, Adriano Coronel Granado, Martin Streichfuss, Eike Stumpf, René van Paassen, David Hunter, Reynald Bur, Diego Guiseppe Romano, Jose Garcia*	**An Artificial Neural Network Based Analysis Method for Skin-Stringer Structures [107]** *Anıl Cankur, Ercan Gürses*	**Safety and robust certification of aircrafts and helicopters - SARAH project overview [162]** *Stephan Adden*	**Aerial Monitoring and Surveillance of Polar Areas – The MONICA Project Issue [177]** *Miroslaw Rodzewicz, Anna Zmarz, Dominik Głowacki, Jaroslaw Hajduk, Małgorzata Korczak-Abshire, Katarzyna Chwedorzewska, Anna Kidawa*	**Preliminary design and optimization of 3D printed fitting for UAV [42]** *Jacek Mieloszyk, Andrzej Tarnowski, Michał Kowalik, Rafał Perz, Witold Rządkowski*	**Multirotor Helicopter Fault-Tolerant Drive [167]** *Daniel Ołdziej, Zdzislaw Gosiewski*	**Structural Dynamic Model with Control System Kinematics of a Light Surveillance Aircraft for Numerical Flutter Calculations [331]** *Aleksander Olejnik, Robert Rogólskii*
17:20	17:40		**The RINGO CSA - shaping the future for research infrastructure - 2**	**Laminated Shell Modeling Of Sandwich Beams With Ramp Region Under Four Point Bending Loading Via Structural Optimization [118]** *Ozan Yardimci, Ercan Gurses*	**FUture Cabin for the Asian Market - FUCAM project overview [115]** *Helge Fromm*	**Integrating drones into the Arctic Observing System [215]** *Rune Storvold, Agnar Holten Sivertsen, Stian Andre Solbø*	**Morphing Wing With Surface Discontinuity. Low-Order Numerical Aerodynamics [93]** *Andrzej Ryszard Tarnowski, Tomasz Goetzendorf-Grabowski*	**SUDIL - drone neutralization platform [324]** *Krzysztof Lowczycki*	**Mixed Fidelity Aerodynamic and Aero-Structural Optimization for Wings [279]** *Mengmeng Zhang, Tomas Melin, Jing Gong, Michaela Barth*
17:40	18:00		**The RINGO CSA - shaping the future for research infrastructure - 3**	**Modification of composite wing structure in terms of deformation criteria [121]** *Jerzy Bakunowicz, Tomasz Kopecki, Tomasz Lis, Przemysław Mazurek*	**Innovative Coarsening-resistant Alloys with enhanced Radiation tolerance and Ultra-fine -grainedStructure for aerospace application - ICARUS project overview** *Santiago Cuesta Lopez*	**Flying wing UAVs for surveillance Antarctic areas in MONICA project [277]** *Miroslaw Rodzewicz, Zdobyslaw Goraj, Adam Tomaszewski*	**Structural Sizing for a Very Light Aircraft Wing Weight Optimization [209]** *Abdelkader Benaouali, Robert Rogólski*	**Robustness of autonomous vehicles software for scientific purposes [259]** *Marcin Ciopcia, Cezary Szczepański*	
18:00	18:20		**The RINGO CSA - shaping the future for research infrastructure - 4**		**New Hybrid Thermoplastic Composite Aerostructures manufactured by Out of Autoclave Continuous Automated Technologies - NHYTE project overview** *Vincenzo Iannone*	**A global collaboration education project to design a UAS to prevent wildlife poaching []** *Lelanie Smith*	**Amphibous Airplane For Underwater Observation [218]** *Yuki Yoshida, Edyta Dziemińska, Tomasz Goetzendorf Grabowski*	**Autonomous Vessel with an Air Look [361]** *Piotr Wołejsza, Jolanta Koszelew, Daniel Ołdziej*	

Time		Room	Programme
18:20	18:40	Room: AULA	**"INEA's role in implementing Aviation research in H2020: feedback from 3 years of operations"** Key-Note Speech by **Mr Alan Haigh** | Head of Department – Horizon 2020 Energy and Transport, INEA Executive Agency – European Commission
19:00			Welcome Reception