7th EASN International Conference on Innovation in European Aeronautics Research

Final Agenda

Day 1
Tuesday, September 26th, 2017

Time		Room	
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 Sunetchieva, Christ Glorieux, Martine Wevers*	
12:20	12:40	RADIAN project overview presentation *Dr. Gerhard Pauly*	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 Sunetchieva, 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] *Małgorzata 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	
13:00	14:30		Lunch Break
14:30	15:00	Room: AULA	"EREA – a major contributor to the implementation of ACARE's SRIA"

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		Room	
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] *Anil 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 [277] *Mirosław Rodzewicz, Anna Zmarz, Dominik Głowacki, Jarosław 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, Zdzisław Gosiewski*	Structural Dynamic Model with Control System Kinematics of a Light Surveillance Aircraft for Numerical Flutter Calculations [331] *Aleksander Olejnik, Robert Rogólski*
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] *Mirosław Rodzewicz, Zdobysław 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	
18:20	18:40	Room: AULA	"INEA's role in implementing Aviation research in H2020: feedback from 3 years of operations"
19:00			Welcome Reception

Day 2
Wednesday, September 27th, 2017

Time		Room	
8:30	18:30		Registration
8:30	9:00	Room AULA	"Challenges of business jets technological developments" Key-Note Speech by **Dr Bruno Stoufflet** | Vice-President Scientific Strategic, R&D and Advanced Projects, Dassault Aviation
9:00	9:30	Room AULA	"Accelerating market introduction of emerging innovations through integrated technology demonstrations" Key-Note Speech by **Dr Fay Collier** | Associate Director for Flight Strategy, Integrated Aviation Systems Program, NASA Langley Research Center
9:30	10:00		Coffee Break

Room		ALPHA	FOXTROT	BRAVO	IKAR	AULA	CHARLIE	DELTA	PAPA
Session		2.1	6.2	1.2	10.1	11.2	8.1	5.2	
Session Title		Design Challenges for Future Passenger Aircraft	Fatigue of Aircraft Structures	Non-Destructive Testing in Aerospace	Space Physics	Optimisation, Control and Robust Design in Aerodynamics	MINI WORKSHOP Future Challenges of Unmanned Aerial Systems Coordinated by Prof Fulvia Quagliotti, Politecnico di Torino	Characterization & Modeling Of Nanofilled Polymers & Composites	
Session Chair(s)		Dr Markus Fisher Airbus Operations	Dr Antoni Niepokolczycki Institute of Aviation	Prof Wieslaw Ostachowicz Polish Academy of Sciences	Prof Romana Ratkiewicz Institute of Aviation	Prof Jacek Rokicki Warsaw University of Technology	Prof Giulio Avanzini Università del Salento	Prof Konstantinos Tserpes University of Patras	
10:00	10:20	Aerospace Engineering: Emerging innovations in the design tools for Aerospace [35] *Jorge Bautista Hernandez*	Application of Computed Tomography to Measurements of Rivet Hole Expansion [63] *Wojciech Wronicz, Maciej Malicki*	Active thermography method for observation and evaluation of an internal composite structure with discontinuities [105] *Katarzyna Majewska, Magdalena Mieloszyk, Wiesław Ostachowicz*	The heliosphere seen as an airplane with self-adapting wings [305] *Hans J. Fahr*	Influence of jets to wall distance on the heat transfer distribution at high flow velocity [66] *Marcin Kurowski, Ryszard Szwaba, Paweł Flaszynski, Janusz Telega, Fernando Tejero*	Risk assessment in UAS/UAV mission planning [36] *Giulio Avanzini, David M. Martinez Hernández*	Nano Enabled Products Containing Carbon Nanotubes as a Innovative Aerostructures [67] *Paulina Latko-Durałek, Paweł Durałek, Anna Boczkowska*	
10:20	10:40	A reduced order model to estimating propeller/wing interaction in solar powered aircraft preliminary design [40] *Alessandro Bacchini, Enrico Cestino, Giulio Romeo*	The process of AlSiC composite deformation at a scale of grain investigated with diffraction methods [86] *Elżbieta Gadalińska, Andrzej Baczmański, Mirosław Wróbel, Sebastian Wroński, Christian Scheffzük*	THz spectrometry method for observation and evaluation of an internal composite structure with discontinuities [111] *Magdalena Mieloszyk, Katarzyna Majewska, Wiesław Ostachowicz*	The heliosphere: models and observations [34] *Romana Ratkiewicz, Wojciech Konior, Jan Kotlarz*	Randomized Methods for Gust Load Alleviation in presence of Uncertainties [116] *Elisa Capello, Fabrizio Dabbene*	Investigation Of The BWB Concept For Fixed-Wing UAV Applications [47] *Pericles Panagiotou, Stefanos Fotiadis-Karras, Panagiotis Tsorpatzoglou, Kyros Yakinthos*	Mechanical and nanomechanical properties of MWCNT/PP nanocomposite [108] *Konstantinos Tserpes, Aggeliki Chanteli, Elias Koumoulos, Spiros Pantelakis, Costas Charitidis*	
10:40	11:00	Studies on Cellular- based additive manufacturing panels as enablers of specific stiffness requirements [101] *Miguel A Castillo Acero*	Fatigue Test of MiG-29 Vertical Fin after Composite Patch Repairs [134] *Andrzej Leski, Piotr Synaszko, Wojciech Zielinski, Michal Salacinski, Marcin Kurdelski, Piotr Reymer, Tomasz Bartoszek, Krzysztof Dragan, Michal Dziendzikowski*	Elastic wave propagation models for SHM – Interface Elements [190] *Piotr Fiborek, Paweł Kudela, Maciej Radzieński, Wiesław Ostachowicz*	Intersellar medium magnetic field in the bow shocks modelling [303] *Jan Paweł Kotlarz, Romana Ratkiewicz, Wojciech Konior*	Dynamic stability analysis of the light gyroplane [137] *Tomasz Goetzendorf-Grabowski, Marcin Figat*	Self-Localization Of Anchors In Remotely Deployed Radio Localization System : UAV Reference System Integration [48] *Sławomir Romaniuk, Zdzisław Gosiewski*	Numerical simulation of crack growth and stopping in highly loaded, single lap shear, composite bonded joints [140] *Ioannis Floros, Konstantinos Tserpes*	
11:00	11:20	Transport aircraft configuration design perspectives – building on advanced technology bricks [109] *Daniel Reckzeh*	Operational Loads Monitoring Program for Polish Su-22 Aircraft [135] *Andrzej Leski, Artur Kurnyta, Wojciech Zielinski, Marcin Kurdelski, Piotr Reymer, Michal Dziendzikowski, Krzysztof Dragan*	Potentials of Lamb wave focusing for damage detection in aerospace structures [357] *Pawel Kudela, Maciej Radzienski, Wieslaw Ostachowicz, Zhibo Yang*	Neutral Component of the Local Interstellar Medium [70] *Wojciech Konior, Jan Pawel Kotlarz, Romana Ratkiewicz*	Analysis and optimization of morphing wing/body aerodynamics [144] *Witold Klimczyk, Zdobyslaw Goraj*	Portable indoor-outdoor UAV positioning system [72] *Jakub Cieśluk, Zdzisław Gosiewski*	The ECO-COMPASS project: Introduction and status after 18 months *Konstantinos Tserpes*	
Session		2.1	10.2	2.2	8.1	11.2	3.2	1.2 / 1.1	
Session Title		Design Challenges for Future Passenger Aircraft	Teledetection in Space	Flight Control	MINI WORKSHOP Future Challenges of Unmanned Aerial Systems Coordinated by Prof Fulvia Quagliotti, Politecnico di Torino	Optimisation, Control and Robust Design in Aerodynamics	Small Aircraft Multidisciplinary Optimisation 1	Non-Destructive Testing in Aerospace	
Session Chair(s)		Dr Markus Fisher Airbus Operations	Dr Mariusz Kacprzak Institute of Aviation	Prof Tomasz Rogalski Rzeszów University of Technology	Prof Giulio Avanzini Università del Salento	Prof Jacek Rokicki Warsaw University of Technology	Dr Andrzej Iwaniuk Institute of Aviation	Prof Wieslaw Ostachowicz Polish Academy of Sciences Dr Welchy Leite Cavalcanti Fraunhofer IFAM	
11:20	11:40	On the Way to the Commercial Aircraft of the next Decade, recent results by Clean Sky 2, Large Passenger Aircraft, Platform 1 [119] *Markus Fischer*	Teledetection in Space [276] *Marek Banaszkiewicz*	Agent-based flight control and monitoring system [28] *Jacek Pieniazek*	Approach to a Synthesis of Hybrid Unmanned Aircraft Systems (UAS) in rotastatic configurations [75] *Julius Malte Tobias Kurt Dahms*	Aerodynamic analysis of propulsion impact on the aircraft stability in the tandem wing configuration [153] *Marcin Figat*	A Systematic Approach to Small Aircraft Design Optimisation [205] *Andrzej Iwaniuk*	Influence of adhesive bonds state on electromechanical impedance characteristics [168] *Pawel Henryk Malinowski, Tomasz Wandowski, Wieslaw Mieczyslaw Ostachowicz*	
11:40	12:00	Conceptual design methodology of a box-wing aircraft: a novel comercial airliner [131] *Pavlos Kaparos, Charalampos Papadopoulos, Kyros Yakinthos*	Key events for Space Research, short story of Space Teledetection [292] *Mariusz Kacprzak*	Aircraft Automatic Vision Spin Recovery System [62] *Piotr Szczerba, Tomasz Rogalski*	Application of Unmanned Aircraft Vehicles (UAV) in Precision Agriculture [92] *Rafal Perz, Kacper Wronowski*	Aerodynamic modeling process of aerobatic aircraft using Reverse Engineering and Computational Fluid Dynamics [214] *Aleksander Olejnik, Lukasz Kiszkowiak, Adam Dziubinski*	Small aircraft and piston engines reliability study [32] *Pawel Jan Glowacki, Wlodzimierz Balicki*	Comparitive study of deterioration of composite due to moisture using strain, electromechanical impedence and guided waves [110] *Rohan Nandkishor Soman, Pawel Henryk Malinowski, Wieslaw Ostachowicz*	
12:00	12:20	Moving Away From Conventional Aircraft Designs And Concepts – What Are The Challenges Ahead? [132] *Raj Nangia, Jonathan Cooper*	Remote Sensing in the research of Mars and other extraterrestrial bodies [212] *Natalia Ewa Zalewska*	Concept of auto taxi directional control system for RPAs, first attempt [161] *Mariusz Krawczyk, Cezary Szczepański, Albert Zajdel*	Hybrid Energy Systems in Unmanned Aerial Vehicles [172] *Anna Maria Mazur, Roman Domański*	Experimental Study on Flow Separation and Aerodynamic Load Control using Synthetic Jet Actuators [224] *Harry W.M. Hoeijmakers, Emiel Koopmans, Tim Berk*	An Advanced Weather Awareness System for small aircrafts [160] *Paola Mercogliano, Alessandra Lucia Zollo, Myriam Montesarchio, Edoardo Bucchignani, Jan Beran*	Experimental investigation of the effects of pre-bond fingerprint contamination and ageing on fracture toughness of composite bonded joints [345] *Elli Moutsompegka, Konstantinos Tserpes, Kai Brune, Mareike Schlag, Spiros Pantelakis*	
12:20	12:40	Design for additively manufactured PT structural components [139] *Maciej Waśko, Jacek Słowik, Jakub Żegleń*	The application of traditional remote sensing methods for extra-terrestrial environmental studies [195] *Sylwia Agata Nasiłowska*		Stability of position tracking control in rigid structures of non-holonomic UAVs [180] *Cezary Kownacki, Leszek Ambroziak*	A numerical study into the dynamic stability of a tailless aircraft [235] *Agnieszka Kwiek*	12:20 - 12:40 A cost optimized avionic system for small air transport vehicles [91] *Jan Beran, Marcela Sapakova, Vittorio Di Vito, Paola Mercogliano, Piotr Masłowski, Piotr Grzybowski, Tomasz Rogalski* 12:40 - 13:00 A tactical separation system for small air transport vehicles [96] *Vittorio Di Vito, Giulia Torrano, Jan Beran*	12:20 - 12:40 Adhesive bonding of thermoplastic carbon reinforced composites with PEEK matrix. Track General Papers [164] *Bartlomiej Wasniewski* 12:40 - 13:00 Symmetrical Laser Shock Adhesion Test for Weak Bonds Inspection [329] *Maxime Sagnard, Laurent Berthe, Romain Ecault, Fabienne Touchard, Michel Boustie*	

Time		Room	
12:40	14:30		Lunch Break
14:30	15:00	Room: AULA	"Flying Around The World With Solar Power – A Success Story" Key-Note Speech by **Mr Hannes Ross** | Design Advisor and Consultant for the Swiss Project Solar Impulse
15:00	15:30		Coffee Break

Room		ALPHA	FOXTROT	BRAVO	IKAR	AULA	CHARLIE	DELTA	PAPA
Session		2.1	12.8	2.2	11.1	8.1	2.4	5.6	
Session Title		Design Challenges for Future Passenger Aircraft	CAPPADOCIA Session	Flight Control	Modelling and Simulation of Flight Physics - Part III	MINI WORKSHOP Future Challenges of Unmanned Aerial Systems Coordinated by Prof Fulvia Quagliotti, Politecnico di Torino	Vibration Control	Important Fire Issues in Aviation	
Session Chair(s)		Dr Markus Fisher Airbus Operations	Mr Fabien Marty Efficient Innovation	Prof Tomasz Rogalski Rzeszów University of Technology	Prof Kostas Kontis University of Glasgow	Prof Ryszard Szczepanik Air Force Institute of Technology	Prof Zbigniew Kulesza Bialystok University of Technology	Prof Geoff Gibson Newcastle University	
15:30	15:50	Integrated aerospace systems design course: an educational experience at Politecnico Di Torino [147] *Roberta Fusaro, Nicole Viola, Marco Fioriti, Luca Boggero, Davide Ferretto*	Coordination Action Pro "Production, Avionics, Design" on Cost-efficiency in Aeronautics - 1	A vision-based method for supporting autonomous aircraft landing [207] *Mariusz Oszust, Tomasz Kapuściński, Dawid Warchoł, Marian Wysocki, Tomasz Rogalski, Jacek Pieniążek, Grzegorz Kopecki, Piotr Ciecinski, Paweł Rzucidło*	Passive contrôle of cavity acoustics via the use of surface waviness at subsonic flow [173] *Belkallouche Abderrahmane, Rezoug Tahar, Dala Laurent*	The impact of a growing number of small UAV operations on flight safety within the General Aviation segment [184] *Piotr Masłowski, Jerzy Graffstein*	Study of optimization algorithms for prognostics of electrohydraulic servomechanisms for aeronautical application [58] *Matteo Davide Lorenzo Dalla Vedova, Paolo Maggiore, Marco Borghetto*	Flame and Fire Retardancy of Polymer Composites used in Aviation [201] *Bernhard Schartel*	
15:50	16:10	A support for the vehicle architecture definition of innovative hypersonic transportation systems during conceptual design phase [148] *Roberta Fusaro, Nicole Viola*	Coordination Action Pro "Production, Avionics, Design" on Cost-efficiency in Aeronautics - 2	Hardware in the loop tests of the switching formation flight controller [203] *Leszek Ambroziak, Cezary Kownacki, Mirosław Kondratiuk, Zdzisław Gosiewski*	Prediction of Buffet Phenomenon using an Efficient Infinite–swept Wing Solver [211] *Jernej Drofelnik, Andrea Da Ronch, Matteo Franciolini, Andrea Crivellini*	A Comprehensive Approach for The Safety Analysis Of Remotely Piloted Aircraft Systems [202] *Laura Novaro Mascarello, Giorgio Guglieri, Fulvia Quagliotti, Stefano Fraschetti, Sandro Gervasio*	Influence of location of piezo-electric harvester on design of active vibration control system with harvesting energy [73] *Andrzej Piotr Koszewnik*	Comprehensive modelling of a structural laminate in fire [311] *Pauline Tranchard*	
16:10	16:30	Preliminary flight mechanic analyses of a prandtlplane transport aircraft [185] *Vittorio Cipolla, Karim Abu Salem, Filippo Bachi*	Coordination Action Pro "Production, Avionics, Design" on Cost-efficiency in Aeronautics - 3	The impact of parametric uncertainty of the model of aircraft on control laws for an automatic emergency manoeuvre [181] *Jerzy Graffstein, Piotr Masłowski*	Prediction of 4D - trajectory time-windows based on bada, Monte Carlo simulation and bayesian inference [222] *Alvaro Rodriguez-Sanz, Fernando Gomez Comendador, Rosa Arnaldo Valdes, Pablo Gonzalez, Marta Perez, Mar Najar Godoy*	Conception of the Kinetic Launcher for Medium Class of Unmanned Aerial Vehicles [213] *Mirosław Kondratiuk, Leszek Ambroziak, Zdzisław Gosiewski*	Prognostic Neural Method based on Discrete Wavelet Transforms Applied to Onboard Electromechanical Actuators [240] *Matteo Davide Lorenzo Dalla Vedova, Nicola Lampariello, Paolo Maggiore*	Intumescent cake on composite: how to protect aircraft against fire? [321] *Serge Bourbigot, Sophie Duquesne*	
16:30	16:50	Agile and Quick Winglet Concept Selection [370] *Sylvie Marquier*	Coordination Action Pro "Production, Avionics, Design" on Cost-efficiency in Aeronautics - 4		Simulation of high-Reynolds number 3D complex flows [283] *Jerzy Majewski, Piotr Szałtys*	Probability of detection in IR Thermography evaluation of Unmanned Aerial Vehicles [236] *Jowita Pawluczy*		Failure Of CFRP Structures Under Compressive Load In Fire [343] *Arthur Geoffrey Gibson*	
Session		2.1		2.2	11.1	8.1	5.4	5.8	
Session Title		Design Challenges for Future Passenger Aircraft		Flight Control	Modelling and Simulation of Flight Physics - Part IV	MINI WORKSHOP Future Challenges of Unmanned Aerial Systems Coordinated by Prof Fulvia Quagliotti, Politecnico di Torino	Impact Damage Formation on Aircraft Structures	Morphing aircraft structures Structural health monitoring in aerospace structures	
Session Chair(s)		Dr Markus Fisher Airbus Operations		Prof Tomasz Rogalski Rzeszów University of Technology	Prof Kostas Kontis University of Glasgow	Prof Ryszard Szczepanik Air Force Institute of Technology	Dr Kamila Kustron Warsaw University of Technology Prof George Labeas University of Patras	Prof Yavuz Yaman Middle East Technical University	
17:00	17:20	Design and Sizing of a dismountable box wing for a light aircraft [182] *Andréani Anne-Sophie, Lainé Eric, Grandidier Jean-Claude, Fleuret Clément, Gorge Anne-Laure*		Aircraft dispatch assessment: tool support and experimentations on flight control architectures [228] *Vachan Srinath Kemthoor, Pierre Bieber*	Comparison of BAY model of rod vortex generator with its grid-resolved model [285] *Tomasz Kwiatkowski, Paweł Flaszyński*	Mathematical model of the UAV vertical take-off and landing [301] *Marcin Chodnicki, Michał Mazur, Mirosław Nowakowski, Grzegorz Kowaleczko*	New Hail Impact Simulation Models on Composite Laminated Wing Leading Edge [186] *Radek Doubrava, Václav Horák, Kamila Kustron, Zdobysław Goraj*	Corroborational Approach for Reduced Order Flutter modeling Of Hypersonic Fins and Canards [14] *Levent Ünlüsoy*	
17:20	17:40	Wing design guidelines for innovative hypersonic transportation systems [149] *Roberta Fusaro, Nicole Viola*		Forming o tailless aircraft pilotage properities [282] *Józef Grzybowski*	Introduction of the bray number in modeling turbulent premixed flames stabilized in a stagnating turbulent flow [318] *Neche Ahmed, Youbi Zineddine*	Design and analysis of feedback loop to regulate the basic parameters of the unmanned aircraft [302] *Marcin Chodnicki, Katarzyna Bartnik, Mirosław Nowakowski, Grzegorz Kowaleczko*	Hybrid experimental-numerical analysis of mechanical and thermal impact on composite airframe structures [237] *Kamila Kustron, Zdobysław Goraj, Malgorzata Kujawinska, Marcin Malesa*	Fiber bragg grating sensor applications for structural health monitoring [57] *Cansu Karataş, Boray Değerliyurt, Yavuz Yaman, Melin Şahin*	
17:40	18:00	Conceptual design of a hypersonic antipodal civil transportation system [150] *Roberta Fusaro, Davide Boi, Nicole Viola, Davide Ferretto*		Optimal Design of Control of Flapping Wing using Adjoint Lattice Boltzmann [286] *Mariusz Rutkowski, Wojciech Gryglas, Łukasz Łaniewski-Wołłk, Jacek Szumbarski*	Float plane aerodynamic analysis using Computational Fluid Dynamics methods [327] *Aleksander Olejnik, Lukasz Kiszkowiak, Adam Dziubinski*	Unmanned aerial targets. Innovations and opportunities [306] *Dariusz Rykaczewski*	Experimental validation of simulations of bird strike events on composite wing panels [328] *Georgios N Lampeas*	Design and analysis of a mechanism for the chord and camber morphing of an aircraft wing [102] *Harun Levent Şahin, Yavuz Yaman*	
18:00	18:20	18:00 - 18:20 Aircraft Loads Prediction using Enhanced Simulation [103] *Jonathan Cooper, Ann Gaitonde, Dorian Jones, Mark Lowenberg, Pia Sartor, Yves Lemmens* 18:20 - 18:40 CENTRELINE Overview Presentation *Arne Seitz*		Fast Optimisation Using the Adjoint Method [288] *Armen Bogdan Jaworski, Jacek Rokicki*	Drag reduction via turbulent boundary layer flow control *Abbas Adel, Bugeda Gabriel, Ferrer Esteban, Fu Song, Periaux Jacques, Pons-PratsS Jordi, Valero Eusebio, Zheng Yao*	Multirotor UAV sensor fusion for precision landing [309] *Michal Grzes, Maciej Słowik, Zdzisław Gosiewski*	ICONIC:Improving the crashworthiness of composite transportation structures [H2020 – MSCA – ITN – 2016] [315] *Brian G. Falzon*	Dynamic and Aeroelastic Analysis of A Hingeless Helicopter Blade with An Actively Controlled Trailing Edge Flap In Forward Flight [247] *Ozge Ozdemir, Metin Orhan Kaya, Merve Sahin, Yunus Emre Coskun*	

Time		Room	
17:30		Room: PAPA	GA EASN Association

Day 3
Thursday, September 28th, 2017

Time		Room	
8:30	18:30		Registration
8:30	9:00	Room AULA	"Aviation 5.0 – Challenges and Solutions for 2050" Key-Note Speech by **Prof Dr-Ing Mirko Hornung** | Bauhaus Luftfahrt e.V.
9:00	9:30	Room AULA	"Connected, Networked Aircraft and The Future of On-Demand Air Mobility" Key-Note Speech by **Dr Bruce Holmes** | Vice President and Executive Director of the Skytelligence Group, SmartSky Networks
9:30	10:00		Coffee Break

Room		ALPHA	FOXTROT	BRAVO	IKAR	AULA	CHARLIE	DELTA	PAPA
Session		12.2	1.3	4.1	11.2	9.1	10.3	2.5	
Session Title		Clean Sky Session	NDT of Composites	Design Challenges for Future Aero-Engines	Optimisation, Control and Robust Design in Aerodynamics	Electric Propulsion for Commercial Aircraft – Challeges & Oportunities	Space Robotics	Aircraft Components & Systems	
Session Chair(s)		Mr Giuseppe Pagnano Clean Sky Joint Undertaking	Prof Elena Jasiuniene Kaunas University of Technology	Prof Witold Wisniowski & Dr Pawel Stezycki Institute of Aviation	Prof Tomasz Goetzendorf-Grabowski Warsaw University of Technology	Prof Mike Benzakein The Ohio State University	Dr Karol Seweryn Space Research Centre PAS	Dr Mariusz Krawczyk Institute of Aviation	
10:00	10:20	How to exploit the Synergies with European Investment Funds in the aeronautics sector *Christos Vasilakos, Bruno Mastantuono*	NDE of composites in case of hybrid metal/composite joints [188] *Elena Jasiuniene, Liudas Mazeika, Vykintas Samaitis, Vaidotas Cicenas, David Mattsson*	Turboprop Centrifugal Compressor System Design Challenges [98] *Konrad Socha, Jan Feliks Sikorski, Wojciech Antoni Macias*	Aerodynamic and Flight Dynamic Interaction of a military trainer in spin [249] *Zdobysław Jan Goraj, Ewa Cichocka, Marcin Figat*	Turboelectric distributed propulsion systems for future commercial aircraft [143] *Borys Lukasik*	Concept down-selection of an innovative launch system for small satellites [21] *Diego Giuseppe Romano, Philippe Choy, Julie Gauvrit-Ledogar, Eduard Diez*	Less-skilled pilot decision support [27] *Jozsef ROHACS, István Jankovics, Daniel Rohacs*	
10:20	10:40	People, Planet, Profit: The Clean Sky 2 PPP *Ron Van Manen*	Quantifying the Influence of Lightning Strike Shock Wave Pressure Loading on Composite Material Damage [341] *Peter Foster*	Investigation of secondary flow details in low pressure turbine [64] *Paweł Jonak, Bartosz Gorecki, Tomasz Borzecki, Slawomir Kubacki*	Light aircraft aerodynamic design methodology in examples [287] *Krzysztof Kubrynski*	World record electric aircraft motor and analytical calculations of its copper power losses [197] *Robert Goraj*	Target Leaded Obstacle Avoidance Method Based on a Genetic Algorithm for Mobile Robot [183] *Konrad Krzysztof Kwaśniewski, Zdzisław Gosiewski*	Distributed measurement system based on CAN data bus [50] *Piotr Grzybowski, Maciej Klimczuk, Paweł Rzucidło*	
10:40	11:00	Clean Sky 1 success stories [325] *Giuseppe Pagnano*	A new experimental approach to studying fracture processes in fiber reinforced polymer (FRP) materials under external loading [300] *Vadim Levin, Yulia Petronyuk, Egor Morokov, Tatiana Ryzhova, Alexander Shanygin*	Experience with the Design of Ultralight Airplane with Unconventional Powerplant [78] *Robert Theiner, Jiri Brabec*	The application of the Inverse Robust Design technique to the RAE 2622 airfoil [290] *Krzysztof Marchlewski, Łukasz Łaniewski-Wołłk*	The Path to Electrical Propulsion for Commercial Aircraft [258] *Mike Benzakein*	Satellite angular motion classification for active on-orbit debris removal using robots [154] *Karol Seweryn, Jerzy Sasiadek*	Battery Management System Architectures for Use in Aviation [54] *Melih Yildiz, Hikmet Tahir Karakoc*	
11:00	11:20	Clean Sky 1 to Clean Sky 2 Technology evolution [326] *Giuseppe Pagnano, Ron Van Manen*		Cooled Turbine Shroud assembly for small turboprop engines [87] *Krzysztof Klimek, Michał Nowak, Piotr Markiewicz, Tomasz Bulsiewicz, Grzegorz Kaczmarek, Rafał Kowalewski*	Aerodynamic design of main rotor blades for ilx-27 light helicopter with elements of optimisation [299] *Wieńczysław Stalewski, Wiesław Zalewski*	11:00 - 11:20 Thermoelectric Generators for Aerospace Applications: Development Experience and Future Challenges [133] *Ludek Janak, Zdenek Ancik, Zdenek Hadas* 11:20 - 11:40 Real world fuel consumption of a piston-prop aircraft [124] *Teresa Donateo*	Gripper technology for on-orbit rigid capture of non-cooperative object *Mateusz Wolski*	Entropy of preference as an effective way of assessing the influence of human factors on the security of the dynamic active system [128] *Krzysztof Stanisław Szafran*	
Session		7.2	6.1	4.1	11.2	9.2	10.3	2.5	
Session Title		New Solutions and Technology Challenges in SAT	Fatigue of Aeronautical Materials & Structures	Design Challenges for Future Aero-Engines	Optimisation, Control and Robust Design in Aerodynamics	Hybrid - Electric Propulsion Technology	Space Robotics	Aircraft Components & Systems	
Session Chair(s)		Dr Krzysztof Piwek Institute of Aviation	Prof Mario Guagliano Politecnico di Milano	Prof Witold Wisniowski & Dr. Pawel Stezycki Institute of Aviation	Prof Tomasz Goetzendorf-Grabowski Warsaw University of Technology	Prof Andreas Strohmayer University of Stuttgart	Dr Karol Seweryn Space Research Centre PAS	Dr Mariusz Krawczyk Institute of Aviation	
11:20	11:40	What is the right level of innovation for SAT? [344] *Michel Claude Goulain*	Static and fatigue behaviour of Composite L-beams [44] *Demirkan Coker, Burcu Tasdemir*	Sustainability Performance Measurement for a Turboshaft Engine Based On Exergy [208] *Onder Turan, Hakan Aydin*	The effects of implementing a spiked nose attachment in shockwave reduction around a body [264] *Laurent Dala*	Cycle Analysis and Preliminary Design of Novel Aero-Engines [29] *Dimitrios Chatzianagnostou, Stephan Staudacher*	Laboratory models of drilling modules for future space exploration [163] *Adam Jan Zwierzyński, Wojciech Teper, Andrzej Gonet, Mirosław Rzyczniak, Stanisław Bednarz, Albert Złotkowski, Tomasz Buratowski, Tadeusz Uhl, Karol Seweryn, Paweł Paśko, Błażej Żyliński*	Immersive environments in assistance of collaborative human-oriented product/process design in aeronautic industry [219] *Anna Karvouniari, Kosmas Alexopoulos, Dimitris Mavrikios*	
11:40	12:00	Small Aircraft Transport forecast models [226] *Daniel Rohacs*	Gas Turbine Blade Failure Behavior During High Cycle Regime [297] *Tomasz Didenko*	Flow structure ananlysis in the gas turbine shroud gap [113] *Filip Wasilczuk, Paweł Flaszyński, Piotr Doerffer*	Aerodynamic characteristics of ultralight airplane for modelling aircraft control system for taxiing phase [319] *Robert Placek, Paweł Ruchała*	Hybrid-Electric Flight – what are we waiting for? [112] *Jonas Lay*	High Accuracy and repeatability of the mirror positioning and precision of speed control of driving system of Pointing Unit of Space Hiperspectral Spectrometer DESIS [270] *Roman Wawrzaszek, Mirosław Rataj, David Krutz, Ingo Walter*	Developing the pilots' load measuring system [227] *Istvan Jankovics, Mehmet Burhan Tekbas, Utku Kale*	
12:00	12:20	Integrated Transportation System Model for SAT System [204] *Andrzej Iwaniuk*	Fatigue behavior of freestanding Inconel fabricated by cold spray deposition [310] *Mario Guagliano, Sara Bagheirfard Bagheirfard, Maria Vittoria Zuccoli, Jan Kondas*	Conceptual design study of a geared turbofan and an open rotor aeroengine with intecooled recuperated core [165] *Christina Salpingidou, Dimitrios Misirlis, Zinon Vlahostergios, Michael Flouros, Kyros Yakinthos*	Structural dynamic model with control system kinematics of a light surveillance aircraft for numerical flutter calculations [330] *Aleksander Olejnik, Robert Rogolski, Lukasz Kiszkowiak*	Conceptual Study of a Mechanically Integrated Parallel-Hybrid Electric Turbofan [123] *Arne Seitz, Markus Nickl, Anne Stroh, Patrick Vratny*		Innovative aviation technologies and the role of safety systems in sustaining airworthiness [284] *Michal Woelke*	
12:20	12:40	Capacity of small airports in Poland within the potential Small Aircraft Transport system [22] *Maciej Maczka*	Strain field based fatigue damage identification on a helicopter tail boom during full-scale fatigue test [313] *Claudio Sbarufatti, Marco Giglio*	Optimal instrumentation for turbine cascade [294] *Wojciech Gryglas, Łukasz Łaniewski-Wołłk, Bartosz Olszański, Piotr Szałtys*	Numerical and Experimental Studies of a Separation Control On The Wing Flap Using Close Loop System *Wieńczysław Stalewski, Andrzej Krzysiak*	12:20 - 12:40 Hybrid Electric Intermodal Aircraft Auxiliary Power Unit [350] *Richard Glassock* 12:40 - 13:00 Performance, Environmental and Economic Assessments of a Turbo-electric Distributed Propulsion Systems *Devaiah Nalianda*			

Time		Room	
12:40	14:30		Lunch Break
14:30	15:00	Room: AULA	"Electric propulsion for aircraft" Key-Note Speech by **Dr Frank Anton** | Siemens Next47 Projects, eAircraft
15:00	15:30		Coffee Break

Room		ALPHA	FOXTROT	BRAVO	IKAR	AULA	CHARLIE	DELTA	PAPA
Session		4.1	5.9	6.1	8.2	7.2 / 7.1	8.1	14.1	
Session Title		Design Challenges for Future Aero-Engines	Surface engineering approaches	Fatigue of Aeronautical Materials & Structures	Design Challenges for MALE class UAS	New Solutions and Technology Challenges in SAT / Safety in SAT	MINI WORKSHOP Future Challenges of Unmanned Aerial Systems Coordinated by Prof Fulvia Quagliotti, Politecnico di Torino	Rotors & sensitivity studies	
Session Chair(s)		Prof Witold Wisniowski & Dr Pawel Stezycki Institute of Aviation	Prof Konstantinos Tserpes University of Patras	Prof Spiros Pantelakis University of Patras	Prof Zdobyslaw Goraj Warsaw University of Technology	Dr Krzysztof Piwek & Dr Bartek Dziugiel Institute of Aviation	Prof Fulvia Quagliotti Politecnico di Torino	Prof Maciej Bossak Institute of Aviation	
15:30	15:50	Comparison of Various Fan Conceptions for Light Sport Aircrafts [206] *Jan Klesa, Martin Helmich, Tomas Sommer*	Cold Spraying and Laser Cladding in the aircraft coatings production as an alternative to harmful cadmium and chromium electroplating processes [242] *Jarosław Sienicki*	Thermomechanical Fatigue Assessment of Nickel-Based Superalloy [332] *Huang Yuan, Jingyu Sun*	Endurance Optimization Of UAV Male Class Wing By Aeroelastic Tailoring [99] *Marek Malinowski, Wojciech Grendysa, Bartłomiej Gołiszek*	General aviation aircraft flight path management in emergency situation [234] *Andrzej Robert Majka*	Methods for determining the speeds start UAV launcher [312] *Leszek Ułanowicz, Grzegorz Jastrzębski*	Coaxial rotor a practical approach [176] *Łukasz Czajkowski*	
15:50	16:10	Degradation prognostic in gas turbine engines using artificial neural networks [246] *Maria Grazia De Giorgi*	Cold spray technology for repair and additive manufacturing of aerospace components [320] *Klara Petrackova*	FEM-DBEM approach to simulate crack propagation on a turbine vane segment undergoing a load spectrum [254] *Venanzio Giannella, Roberto Guglielmo Citarella, Edoardo Vivo, Massimo Mazzeo*	Initial concepts and selected details of the structure of the unmanned aerial vehicle PW-100 [141] *Wojciech Grendysa, Marek Malinowski, Bartłomiej Gołiszek*	Mission and performance sizing of low power turboprpeller single engine aeroplane [43] *Jerzy Bakunowicz*	Vision-based formation flight control of unmanned aerial vehicles [238] *Leszek Ambroziak, Mariusz Bogdan, Zdzisław Gosiewski*	Efficient Use of 2nd Order Sensitivity for Uncertainty Quantification [281] *Marcin Wyrozębski*	
16:10	16:30	Practical approach to exergy and economy of a high bypass turbofan engine [278] *Onder Turan, Hakan Aydin*			The structural design of vertical empennage of PW-100 male aircraft [221] *Bartłomiej Gołiszek, Wojciech Grendysa, Marek Malinowski*	Partially feasible solution space for integrated fleet schedule design [356] *Wojciech Jerzy Miksa, Tomasz Goetzendorf-Grabowski*	Civil rpas integration in future ATM: time-based separation procedures with dynamic mobile area (DMA) [217] *Roberta Fusaro, Giovanni Di Meo, Giovanni Di Meo, Nicole Viola, Nicole Viola, Sara Cresto Aleina, Sara Cresto Aleina*	Column stand for aircraft multi-barrel machine gun model sensitivity study on analisys methods [229] *Paweł Abratowski*	
16:30	16:50	16:30 - 16:50 Exergo-genetic optimization of a high bypass turbofan in preliminary design phase [322] *Onder Turan* 16:50 - 17:10 Turboprop Exhaust Component Test [334] *Tomasz Iglewski*			16:30 - 16:50 Research and selection of MALE wing profile [233] *Cezary Górniak* 16:50 - 17:10 In-flight testing for assessment of a small UAV performance [250] *Adam Tomaszewski, Zdobysław Jan Goraj*	A tactical separation system for small air transport vehicles [96] *Vittorio Di Vito, Giulia Torrano, Jan Beran*		The concept of cooperation MOTOR SICH JSC with European Union enterprises/organizations and scientific institutions for the creation and modernization of helicopters [359] *Ivan Moskalenko*	

Time		Room	
17:00	17:15	Room: AULA	Closing Ceremony - Summary & Adjourn