# 10th EASN Virtual International Conference on
# Innovation in Aviation & Space to the Satisfaction of the European Citizens

## Preliminary Programme at a Glance

## DAY 1 | 02.09.2020

| Time (CET) | | | ROOM 1 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|
| 9:00 | 9:15 | | Welcome & Introduction by the Conference Chairmen |
| 9:30 | 10:00 | Keynote Lecture | EU aviation R&I in HE: present and future perspectives<br>Mr. Andrea Gentili • European Commission \| Deputy Head of Unit - D3 Low Emission Future Industries |
| 10:15 | 10:45 | Keynote Lecture | Clean Sky: towards climate-neutral aviation<br>Mr. Axel Krein • Clean Sky 2 Joint Undertaking \| Executive Director |
| 10:45 | 11:00 | | Break |

| Rooms | | Room 1 (Clik to join the Virtual Meeting Room) | Room 2 (Clik to join the Virtual Meeting Room) | Room 3 (Clik to join the Virtual Meeting Room) | Room 4 (Clik to join the Virtual Meeting Room) | Room 5 (Clik to join the Virtual Meeting Room) | Room 6 (Clik to join the Virtual Meeting Room) | Room 7 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|---|---|---|---|---|
| Session Title | | Clean Sky Thematic Projects: where the Bottom-Up meets the Top-Down (PART I) | Aerodynamic Analysis & Design (PART I) | R&D Research in the Field of Aeronautics & Air Transport: ASuMED, CENTRELINE, ECO-COMPASS, JETSCREEN, PASSME overview presentations | Hybrid-electric flight (PART I) | New generation of hybrid aircraft structures (PART I) | From Sensors to FMS | Air Traffic Management (ATM) & Airports |
| Session Chair | | Dr. Jean-Francois Brouckaert<br>Clean Sky Joint Undertaking | Prof. Christian Breitsamter<br>Technical University of Munich, Germany | Mr. Vladimir Cid-Bourié<br>Innovation and Networks Executive Agency (INEA) | Prof. Andreas Strohmayer<br>University of Stuttgart, Germany | Dr. Alexander Shanygin<br>Central Aerohydrodynamic Institute (TsAGI), Russia | Dr. Cezary Szczepanski<br>Warsaw Institute of Aviation, Poland | Prof. Octavian Thor Pleter<br>University Politehnica of Bucharest, Romania |
| 11:00 | 11:20 | Clean Sky Thematic Projects: where the Bottom-Up meets the Top-Down Introduction<br>***Jean-Francois Brouckaert*** | Design of a Morphing Leading Edge for use as a High Lift Device for a Regional Aircraft<br>***Conchin Contell Asins,*** *Volker Landersheim, Jens-David Wacker, Seiji Adachi, Sonja Arnold-Keifer, Michael May* | ASUMED project presentation<br>***Thomas Reis*** | Foundations towards the future: FUTPRINT50 TLARS, an open approach<br>***Ricardo Reis,*** *Francisco Palazzo, Carlos Ilário, Evert Windels, Dominik Eisenhut* | Novel hybrid layouts for composite civil airframes based on UD structure concept<br>***M. Zichenkov,*** *A. Shanygin* | Review and selection of commercially available IMU for short period of time inertial navigation<br>***Krystian Borodacz***, *Szczepański Cezary* | Adaptive graph of aircraft trajectory generation to optimize aircraft trajectory for weather avoidance and fuel consumption and emission reduction<br>***Gabriella Serafino*** |
| 11:20 | 11:40 | Low-emission kerosene combustion with the Lean Azimuthal Flame combustor concept<br>***E. Mastorakos,*** *P.M. de Oliveira, A. D'Anna, G. de Falco, M. Sirignano, N. Noiray, L. Miniero, D. Fredrich, A. Giusti* | Methods of analyzing isolated and ducted fixed-pitch propellers under non-axial inflow conditions<br>***M. Cerny,*** *J. Faust, C. Breitsamter* | CENTRELINE: Latest Progress in TRL 3 Research on Fuselage BLI Propulsion<br>***Arne Seitz*** | Development of top-level requirements for regional aircraft based on the needs of the Russian market, ***Maksim Ovdienko,*** *A.N. Varyukhin, B.G. Nesterenko, A.V. Vlasov, V.V. Klochkov, A.E. Karpov, E.V. Varyukhina* | Study of impact resistance of thin-walled hybrid metal-composite rods<br>***A. Chernov,*** *E. Dubovikov, N. Guseva, I. Mareskin, A. Shanygin* | Simulation and Testing of Flight Stabilisation System Using Trimmers in the Longitudinal Channel<br>***Cezary Szczepanski,*** *Mariusz Krawczyk, Albert Zajdel* | Applying Machine Learning Modeling to Enhance Runway Throughput at A Big European Airport<br>***Guillaume Stempfel,*** *Victor Brossard, Antoine Bonnefoy, Mohamed Ellejmi, Vincent Trêve, Ivan de Visscher* |
| 11:40 | 12:00 | CHAIRLIFT: Compact Helical Arranged combustoRs with lean LIFTed flames<br>***Antonio Andreini*** | Aerodynamic Design and Optimization of Propellers for Multirotor<br>***Witold Klimczyk*** | Results of the ECO-COMPASS EU/China project and an outlook on future research topics for the introduction of eco-composites to aviation composite structures<br>***Jens Bachmann***, *Xiaosu YI* | Selecting figures of merit for a hybrid-electric 50 seat regional aircraft, ***Nicolas Moebs*** | Investigation of prospective structure of high aspect ratio strut-braced wing for regional aircraft<br>***E. Dubovikov***, *D. Fomin, I. Mareskin, Y. Mirgorodskiy, D. Vedernikov* | Simulation and Testing of Flight Stabilisation System Using Trimmers in the Lateral Channel<br>***Cezary Szczepanski,*** *Mariusz Krawczyk, Albert Zajdel* | Impact of Weather Conditions on Airport Arrival Delay and Throughput<br>***Álvaro Rodríguez-Sanz,*** *Javier Cano, Beatriz Rubio Fernández* |
| 12:00 | 12:20 | Impact of stationary and transient factors on the formation of NOx in stimulated flames<br>***Dmytro Dolmatov,*** *A.V. Kukurudza, S.V. Epifanov, S.M. Nyzhnyk* | Application of interdisciplinary optimization in the selection of rational geometric parameters of the nose of the aircraft<br>***A.V. Barabanov***, *S.A. Serebryansky* | JETSCREEN - JET Fuel SCREENing and Optimization<br>***Bastian Rauch*** | Operator Technology Impact Simulator - assessing innovation from operator perspective<br>***Yorick Teeuwen*** | Investigation of damage evolution on micro level in CFRP laminates using high frequency acoustic microscopy and acoustic emission<br>***E. Morokov***, *T. Ryzhova, E. Dubovikov, I. Gulevsky, Y. Petronyuk, V. Levin* | Sensors for UAVs dedicated to agriculture<br>***Cezary Szczepanski,*** *Purushotaram Raja* | Advanced Passenger Movement Model Depending On the Aircraft Cabin Geometry<br>***Marc Engelmann,*** *Tim Kleinheinz, Mirko Hornung* |
| 12:20 | 12:40 | RAPTOR: Research of Aviation PM Technologies, mOdelling and Regulation<br>***Ayce Celikel*** | Aerial Stability of an In-Flight Water Scooping System<br>***Mario Verhagen,*** *Huub Timmermans, Wouter van den Brink* | PASSME: Personalised Airport Systems for Seamless Mobility and Experience<br>***Sicco Santema*** | Hybrid electric distributed propulsion overall aircraft design process and models for general aviation<br>***Juan Pablo Ruscio***, *Joël Jezegou, Angel Gomez Pacheco, Paul Laonet, Raquel Alonso Castilla* | Parametric investigation of strength of domestic aircraft structure using the models based on the doublet lattice method<br>***D. Vedernikov*** | Design and Application of Acto-Passive Vane-Jet Vortex Generator for Flow Control<br>***Swaminathan Chandrasekaran,*** *Shashank Khurana* | Numerical implementation and validation of the simulation models of reference SID and STAR procedures for the RPAS integration research<br>***Daniel Lichoń*** |
| 12:40 | 13:00 | HiMT: A Human Factors approach for multimodal collaboration with Cognitive Computing to create a Human intelligent Machine Team<br>***C. Dormoy***, *André, Pagani, Minaskan* | The dependence of the speed of sound in the Earth's atmosphere on its density and the correction of Mach's number<br>***Vladimer Kirtskhalia*** | The Schiphol Innovation Way of Working<br>***Max Davidse*** | | | A concept of an automatic flight control system capable of aerobatic flight<br>***Tomasz Rogalski,*** *Paweł Rzucidło, Jacek Prusi* | Tactical Runway Scheduling for Demand and Delay Management<br>***Alvaro Rodriguez-Sanz,*** *Pablo López Cózar, Javier A. Pérez-Castán, Fernando Gómez Comendador* |
| 13:00 | 13:20 | | Study on a twin-fuselage transport airplane model in a low speed wind tunnel<br>***Evgeny Pigusov***, *V. Chernousov, A. Krutov* | | | | Passive Flow Control over an Airfoil using Novel Vortex Generators<br>***Aishwarya Krishnan,*** *Shashank Khurana* | Enhanced cockpit avionics systems for greener aviation<br>***Patrick Delpy,*** *Thierry Maret* |
| 13:20 | 13:40 | | | | | | | |

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|---|---|---|---|
| 13:00 | 14:00 | | Break |
| 14:00 | 14:30 | Keynote Lecture | Preparing a zero carbon aviation in Europe<br>Mr. Bart Biebuyck • Fuel Cells and Hydrogen Joint Undertaking (FCH JU) \| Executive Director |

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|---|---|---|---|---|---|---|---|---|
| Session Title | | Clean Sky Thematic Projects: where the Bottom-Up meets the Top-Down (PART I) | Aerodynamic Analysis & Design (PART II) | R&D Research in the Field of Aeronautics & Air Transport: UHURA Project Session | Hybrid-electric flight (PART II) | New generation of hybrid aircraft structures (PART II) | Non-Destructive Testing and Structural Health Monitoring of Aircraft structures (PART I) | Human Factors towards Increasing Automation & Autonomy (SAFEMODE) |
| Session Chair | | Dr. Jean-Francois Brouckaert<br>Clean Sky Joint Undertaking | Prof. Dragan Kozulovic<br>Hamburg University of Applied Sciences, Germany | Dr. Jochen Wild<br>German Aerospace Center (DLR), Germany | Prof. Andreas Strohmayer<br>University of Stuttgart, Germany | Dr. Alexander Shanygin<br>Central Aerohydrodynamic Institute (TsAGI), Russia | Prof. Elena Jasiuniene, Kaunas University of Technology, Lithuania & Prof. Dr. Marco Ricci, University of Calabria, Italy | Mr. Simone Pozzi<br>Deep Blue, Italy |
| 14:30 | 14:50 | Agent based model to improve Flight Crew performance through enhanced cockpit perceptual variables<br>***Miquel Angel Piera*** | Cooling System Design for the Internal Combustion Engine of a BWB UAV Prototype<br>***Thomas Dimopoulos***, *Stylianos Dimitriou, Pericles Panagiotou, Kyros Yakinthos* | Unsteady High-Lift Aerodynamics - Unsteady RANS Validation An Overview on the UHURA Project<br>***Jochen Wild*** | Power control system for a lightweight electric aircraft<br>***Fedor Zagumennov,*** *Varyukhin Anton N., Ivanov Grigory S., Zhuravlev Denis I., Zakharchenko Victor S.* | Development of Numerical Tools for Optimization of Lightweight Details Based on Mechanical Metamaterials<br>***S.Belikov,*** *I. Kondakov* | Sensing devices with a sigmoidal sensing characteristics to simplify data interpretation and enhance robustness in Structural Health Monitoring<br>***Helge Pfeiffer,*** *Sevilia Sunetchiieva, Michael Stamm, Martine Wevers* | From Rigid Automation to Flexible Autonomy<br>***Guy Boy*** |
| 14:50 | 15:10 | HARVIS: Cognitive assistant in the cockpit<br>***Stefano Bonelli***, *Antonio Rodríguez-Vázquez* | Aerodynamic and stability analysis of a VTOL flying wing UAV<br>***Chris Bliamis,*** *Ilias Zacharakis, Pavlos Kaparos, Kyros Yakinthos* | Progress in Meshing for Dynamic High-Lift CFD<br>***J.E.J. Maseland***, *J. Wild, H. van der Ven* | Optimal Control of the Energy Management of a Hybrid Electric Helicopter for Urban Air-Mobility<br>***Teresa Donateo,*** *Claudia Lucia De Pascalis, Luciano Strafella, Antonio Ficarella* | The new indicator composite coatings to detect the place of BVI on aircraft structures<br>***Buslaeva O.S.,*** *Sapozhnikov S.B., Bezmelnitsin A.V., Ignatova A.V., Kudryavtsev O.A.* | Non-destructive Evaluations of Composite-Adhesive Bonding with Data Fusion<br>***Bengisu Yilmaz,*** *Elena Jasiuniene, Abdoulaye Ba, Huu Kien Bui, Gerard Berthiau* | Informing design solutions with Human Factors data from safety reports<br>***Simone Pozzi,*** *Ricardo Jose Nunes dos Reis* |
| 15:10 | 15:30 | ELICA: Economically Driven Requirements for a Hybrid-Electric 19-Passenger Commuter Aircraft<br>***Maximilian Spangenberg*** | Energy approach to transonic flutter and LCO with shock waves movement<br>***Svetlana Kuzmina,*** *Fanil Ishmuratov, Oleg Karas* | Progress towards numerical simulation of the dynamic Krueger motion with Chimera methods<br>***Frederic Moens, A. Prachar***, *R. Heinrich, A. Raichle, J.C. Kok, T. Renaud* | Comparison of Optimized Thermal Management Systems for Hybrid Electric Aircraft<br>***Hagen Kellermann***, *Mirko Hornung* | Stack fabric felting to get PCM GIc/GIIc improvement and LVI tolerance<br>***Forental G.A.,*** *Kheruvimov A.V., Nikonov A.V., Sapozhnikov S.B.* | Defect detection in dynamically loading structures by nonlinear ultrasound<br>***Elena Jasiuniene,*** *Sevilia Sunetchiieva, Helge Pfeiffer, Christ Glorieux, Martine Wevers* | Higher levels of automation throughout the aviation domain. Low fidelity case studies for risk assessment and HMI design<br>***Rolf Zon*** |
| 15:30 | 15:50 | UNIFIER19: Conceptual design of a near-zero emission and cost-efficient regional air mobility solution<br>***David Erzen*** | 2D optimization of a Small Horizontal Axis Wind Turbine blade using flow control techniques<br>***Charalampos Papadopoulos***<br>*Pavlos Kaparos, Zinon Vlahostergios, Dimitrios Misirlis, Kyros Yakinthos* | Hybrid RANS-LES simulation of a deflecting Krüger device<br>***Song Chen,*** *F. Bagheri, S. Wallin* | Thermal management for a hybrid-electric 50 seat regional aircraft<br>***Ricardo Reis***, *Francisco Palazzo, Carlos Ilário, Ricardo Gandolfi, Walter Affonso, Nicolas Rodio, Timoleon Kipouros, Panagiotis Laskaridis, Andrei Chekin, Yury Ravikovich, Nikolay Ivanov, Leonid Ponyaev, Dmitry Holobtsev* | Hybrid CF/aramid thermoplastic to deliver LVI tolerance and stiffness of skin on a new generation aircraft grid structures<br>***Leshkov E.V.,*** *Sapozhnikov S.B.* | Air-coupled ultrasonic measurement of in-plane elastic properties of a non-uniform MICA paper<br>***Justina Sestoke,*** *R. J. Kazys, R. Sliteris* | Addressing future operations concepts with increasing automation using human-in-the-loop simulations: the SAFELAND project<br>***Stefano Bonelli*** |
| 15:50 | 16:10 | UNIFIER19: Methodologies for the initial design studies of an innovative community-friendly mininliner<br>***Lorenzo Trainelli*** | Mesh-Diverging Inviscid Adjoint Solutions<br>***Carlos Lozano,*** *Jorge Ponsin* | A dynamic Immersed Boundary method for moving bodies and FSI applications<br>***Francesco Capizzano,*** *T. Sucipto, P. Iannelli* | Safety and Certifiability evaluation of Distributed Electric Propulsion Airplane in EASA CS-23 category<br>***Joel Jezegou***, *Umair Sufuan* | Hot-pressing CF nonwoven thermoplastic/thermoset composite usage to minimise high-velocity impact damage of aerospace-grade materials<br>***Zhikharev M.V.,*** *Bezmelnitsin A.V., Olivernko N.A., Sapozhnikov S.B.* | Development of Air-Coupled ultrasound Guided wave numerical model in COMSOL Multiphysics<br>***Aadhik Asokkumar*** | Human Factors in Design – from imagination to realisation<br>ROUND TABLE |
| 16:10 | 16:30 | HECARRUS: Hybrid ElectriC smAll commuteR aiRcraft conceptUal deSign<br>***Vasilis Gkoutzamanis*** | Artificial neural networks in panel method for solving aerodynamics problems<br>***Dmitry Strelets,*** *Kataev A.A., Khrustalev A.L.* | Progress towards simulation of Krueger device motion with Lattice Boltzmann Methods<br>***Jorge Ponsin Roca***, *C. Lozano* | | | Delamination detection in composites using non-linear vibro-acoustic modulation<br>***Tommaso Seresini,*** *Christ Glorieux, Helge Pfeiffer, Martine Wevers* | |
| 16:30 | 16:50 | | Steady and Unsteady RANS Modeling of Wake Effects and Grid Resolution Requirements in a Low-Pressure Turbine Cascade<br>***Alexander Führing***, *Dragan Kozulovic, Christoph Bode, Matthias Franke* | | | | Integration and evaluation of a meander-shaped fiber-optical sensor in GFRP coupons<br>***Andreas Preisler,*** *Friedrich Wolf-Monheim, Athanasios Dafnis, Kai-Uwe Schröder, Wolfgang David, Paul Zandbergen* | |

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|---|---|---|---|---|---|---|---|---|
| Session Title | | Clean Sky Thematic Projects: where the Bottom-Up meets the Top-Down (PART III) | Aerodynamic Analysis & Design (PART III) | R&D Research in the Field of Aeronautics & Air Transport: "Aviation sustainability: ACACIA – ALTERNATE – CLIMOP – GREAT common session" | Hybrid-electric flight (PART III) | 2D-material based devices in aeronautics and aerospace: from modeling to experimental results | Non-Destructive Testing and Structural Health Monitoring of Aircraft structures (PART II) | Noise Prediction and Control Strategies |
| Session Chair | | Dr. Jean-Francois Brouckaert<br>Clean Sky Joint Undertaking | Prof. Konstantinos Kontis<br>University of Glasgow, UK | Dr. Jordi Pons-Prats<br>CIMNE, Spain | Prof. Andreas Strohmayer<br>University of Stuttgart, Germany | Prof. Patrizia Lamberti<br>University of Salerno, Italy | Prof. Elena Jasiuniene, Kaunas University of Technology, Lithuania & Prof. Dr. Marco Ricci, University of Calabria, Italy | Prof. Massimo Viscardi<br>University of Naples "Federico II", Italy |
| 16:40 | 17:00 | GLOWOPT: A novel approach to minimize the climate impact of next generation aircraft<br>***Kaushik Radhakrishnan*** | Study on the effect of curvature on aerodynamic performances of drone rotors blades<br>***Riccardo Cagnato***, *Filipe Szolnoky Cunha* | ACACIA: Improved understanding on aviation's climate impact<br>***Sigrun Matthes***, *Klaus Gierens, Robert Sausen & ACACIA Project Team* | Wing conceptual design for the airplane with distributed electric propulsion,<br>***Pavel Hospodář,*** *Nikola Zizkovsky, Jan Klesa* | 2D materials in field effect electronic devices and sensors<br>***Antonio Di Bartolomeo*** | Investigation on Low Velocity Impact Damage identification with Ultrasonic techniques under different sensor network conditions<br>***A. Beligni,*** *F. Cadini, C. Sbarufatti, M. Giglio, N. Cimminiello, P. Salvato, E. Monaco, F. Romano* | Vibro-Acoustic Response Analysis and Experimental Validation of a Turboprop Insulation Package<br>*Giuseppe Bizzarro,* ***Massimo Viscardi*** |
| 17:00 | 17:20 | GLOWOPT: Climate optimization of aircraft operations and design: A review and implications on modelling requirements<br>***Kathrin Deck***, *Volker Grewe, Feijia Yin, Irene Dedoussi, Roloef Vos, Pieter-Jan Proesmans, Florian Linke, Kaushik Radhakrishnan, Malte Niklay, Benjamin Lahrs, Katrin Dahlmann, Sigrun Matthes* | Development of a Cargo Airdrop Modeling Method for a Tactical Blended-Wing-Body UAV<br>***Dimitios Mitridis***, *Nikolaos Mathioudakis, Pericles Panagiotou, Kyros Yakinthos* | ALTERNATE:<br>Assessment on Alternative aviation fuels development<br>***Jordi Pons-Prats***, *Gustavo Ionso* | Effects of an innovative distributed propulsion system on a regional aircraft wing configuration<br>***Giovanni Andreutti,*** *M. Minervino , G. Mingione* | Highly stretchable PDMS matrices for graphene-CNT piezoresistive sensors<br>***Filomena Piscitelli,*** *Maia Laura Lo Gatto, Gennaro Rollo, Giovanni Filippone, Marino Lavorgna* | Development of Eddy Current based inspection system for detection of defects in Carbon fibre<br>***Ian Nicholson,*** *Vicki James, P. Ian Nicholson, Chris Silva, Chris Smith, John Hans, Nelly Fernandez, Abbas Egbeyemi, James Sexton, Mo Missous, Joseph Dobson* | Laser scanning vibrometry technique for the damping assessment of new structural multifunctional epoxy resin for aerospace<br>***Giuseppina Barra***, *Maurizio Arena, Luigi Vertuccio, Massimo Viscardi, Liberata Guadagno* |
| 17:20 | 17:40 | RHEA: Robust by design ultra high aspect ratio wing and airframe<br>***Ali Elham***, *Rolf Radespiel, Marco Fossati, Rafael Palacios, Anne Gazaix, Koen Artois* | Multidisciplinary wing concept for aircraft preliminary design purposes<br>***Pavel Hospodar,*** *Armad Drabek* | ClimOp:<br>Climate assessment of innovative mitigation strategies towards operational improvements in aviation<br>***Carlo Abate***, *K. Sutopo, B. Ohlenforst, J. Middel, V.S.V. Dhanisetty, B.F. Santos, F. Yin, P. Rao, F. Linke, C. Weder, I. Ozkol, B. Başpınar, T. Roetger, E. Branchini, C. Abate, S. Gottofredi, V. Grewe, S. Matthes* | Innovation Design Analysis of the Optimal Aerodynamic Adaptive Smart Structures for Disk-Body Hybrid Electric Solar Aircraft and Airship Concepts<br>***Leonid Ponyaev,*** *Yury Ravikovich, Michail Kuprikov* | Effect of non-covalent functionalization of graphene-based nanoparticles on the local electrical properties of epoxy nanocomposites<br>***Marialuigia Raimondo,*** *Maria Rossella Nobile, Carlo Naddeo, Liberata Guadagno* | **Session Title:** Optimising Design for Inspection<br>**Session Chair:** Prof. E. Jasiuniene, Kaunas University of Technology, Lithuania & Prof. R. Pullin Cardiff University, UK | Boundary Element Method for the acoustic improvement of aircraft headrests made with electrospun mats<br>***V. Giannella,*** *F. Branda, J. Passaro, G. Petrone, M. Barbarino, R. Citarella* |
| 17:40 | 18:00 | U-HARWARD: a THT Project Aiming at Ultra High Aspect Ratio Wings Advanced Research and Designs<br>***Sergio Ricci*** | A CSM-CFD methodology applied to the design of a cryogenic WT model<br>***S. Russo***, *J. Kirchner, G. Graumann, S. Adden, N. Paletta* | GREAT:<br>Greener Air Traffic Operations<br>***Abdellaoui Rabeb,*** *Finke Michael, Temme Marco-Michael* | Set-based design for hybrid-electric: a decision-making approach<br>***Timoleon Kipouros*** | Graphene-enhanced loop heat pipes for space applications<br>***Fabiola Liscio,*** *A. Glushchuk, Y. A. Samad, J. Marcellino, D. Pisanti, A. Giampietro, M. Christian, C. Ghisellu, P. Queeckers, C. Minetti, G. Pilato, V. Morandi, M. Molina, V. Palermo, A. C. Ferrari, C. S. Iorio* | Acoustic based Structural Health Monitoring of Aircraft Structural Testing<br>***S. Grigg,*** *M. Pearson, C.A. Featherston & R. Pullin* | |
| 18:00 | 18:20 | CA3ViAR: a step forward towards modelling and testing aerodynamic and aeroelastic instabilities experienced by Low Transonic Fans made of composite material<br>***Nicola Paletta,*** *Vecchio, Gößling, Amer, Friedrichs, Eggers, Russo, Natale* | A CFD study on the strut Interference on a regional aircraft wind-tunnel model<br>***S. Russo***, *J. Maoeller, J. Alderman, N. Paletta, S. Adden, L. P.Ruiz-Calavera* | | Analysis of efficiency of commuter airliners with hybrid electric propulsion<br>***A.N. Varyukhin,*** *V.S. Zakharchenko, P.S. Suntsov, D.Ya. Rakhmankulov, M.A. Ovdienko* | Studies on novel way for realizing an epoxy coating for Aerospace applications<br>***Federico Micciulla,*** *A. Cataldo, C. Cencetti, A. Sorrentino, R. Cossi, S. Bellucci* | Failure analysis of ATR 72 tow bar – opportunity for re-design for inspection<br>***Ivana Atanasovska,*** *Dejan Momcilovic* | |
| 18:20 | 18:40 | INFRA-CA3ViAR Rig: Experiments on combined intake-fan aerodynamics in the propulsion test facility (PTF)<br>*Friedrichs, Eggers, Harjes, Frantzheld,* ***Brunow,*** *Grubert, Seume, Gößling* | Reliable Method of Aerodynamic Analysis using Computational Fluid Dynamics and Scaled Models in the Development Process of a Very Light Airplane<br>***Aleksander Olejnik***, *Adam Dziubiński, Lukasz Kiszkowiak* | | | Tolerance analysis of a GFET transistor for aerospace and aeronautical application<br>***Vincenzo Tucci,*** *Patrizia Lamberti, Monica La Mura, Francisco Pasadas* | A case study on ultrasonic guided wave inspection of aerospace components – is 'in-situ' feasible?<br>***Damira Smagulova,*** *Vykintas Samaitis, Mastan Raja Papanaboina, Elena Jasiuniene* | |
| 18:40 | 19:00 | | | | | Experimental results of cosmic radiation tolerant bolometers based on 2D metastructures<br>***Patrizia Lamberti,*** *Polina P. Kuzhir, Yuri Svirko* | | |

End of the 1st Day of the 10th EASN Virtual Conference

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## Innovation in Aviation & Space to the Satisfaction of the European Citizens

### Preliminary Programme at a Glance

## DAY 2 | 03.09.2020

| Time (CET) | | | ROOM 1 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|
| 9:30 | 10:00 | Keynote Lecture | Space Research and Innovation under Horizon Europe: state of preparation<br>Dr. Rémy Denos • European Commission \| Policy Officer at Directorate-General for Grow, Space Policy and Research |
| 10:15 | 10:45 | Keynote Lecture | Key trends in Space RD&I<br>Mr. Pierre Lionnet • Eurospace \| Director of Research |
| 10:45 | 11:00 | | Break |

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| Session Title | | Clean Sky Thematic Projects: where the Bottom-Up meets the Top-Down (PART IV) | Impact Monitoring in Horizon Europe | R&D Research in the Field of Aeronautics & Air Transport: SLOWD Project Session | High Speed Air Vehicles (PART I) | Aerostructural Materials (PART I) | Advanced Manufacturing Technology for Aeronautics (PART I) | Aircraft Design and Propulsion (PART I) |
| Session Chair | | Dr. Jean-Francois Brouckaert<br>Clean Sky Joint Undertaking | Mr. Volker Krajenski<br>German Aerospace Center (DLR), Germany | Mr. Francesco Gambioli<br>Airbus, UK | Dr. Nicole Viola, Politecnico di Torino, Italy &<br>Dr. Catalin Nae, INCAS - National Institute for Aerospace Research, Romania | Prof. Roberto Pantani<br>University of Salerno, Italy | Dr. Jie Zhao & Prof. Yi Qin<br>University of Strathclyde, UK | Prof. Michael Weigand<br>Vienna University of Technology, Austria |
| 11:00 | 11:20 | CATANA: Composite Aeroelastics and Aeroacoustics<br>***Christoph Brandstetter*** | Impact Monitoring in Horizon Europe: Industry view<br>***Pierre Arbez*** | SLOWD Project Overview presentation<br>***Francesco Gambioli*** | Dynamic Control for Tailless High Speed Aircraft Configuration<br>***Catalin Nae*** | Foliated nano - resin layered sandwich composite structures<br>***ilke Dikici*** | Simulation of the Rolling Process of the GH3536 Thin-walled M-profiled Cross-section Sealing<br>***Ring Zhiyu Xiang,*** *Hongwei Li* | Active Turbulence Suppression for Aircraft – SmartWings<br>***A. Galffy*** |
| 11:20 | 11:40 | VENUS: Investigation of Distributed Propulsion Noise and its Mitigation through Wind Tunnel Experiments and Numerical Simulations<br>***Roberto Camussi.*** *Alessandro Di Marco* | Impact Monitoring in Horizon Europe: Commission view<br>***Sebastiano Fumero*** | Sloshing Induced Damping in Vertically Vibrating Systems<br>***Joe de Courcy***, *Lucian Constantin, Brano Titurus, Tom Rendall, Jonathan Cooper* | STRATOFLY H2020 MR3: CAD Design Overview<br>***Enrico Viola,*** *N. Viola, D. Ferretto, R. Fusaro* | Experimental investigation on tensile property of cold rolled TC4 alloy treated by pulsed electromagnetic field<br>***Zhen Shang Hu***, *Yi Yang, Gang Yang* | A study of the forming quality of Ni-based superalloy conical-cylindrical parts under complex strain path by deep-drawing spinning<br>***Gangfeng Xiao,*** *Zeyu Ling, Qinxiang Xia, Yilong Zhang* | Development of a methodology for the mass-optimized preliminary design of mechanical drivetrains within the scope of rotorcraft design<br>***L. Gammer*** |
| 11:40 | 12:00 | SilentProp: Experimental and numerical investigations on acoustic propagation and noise abatement for distributed aircraft propulsion<br>***Dimitrios Chronopoulos*** | Impact Monitoring in Horizon Europe: Technology Evaluation in Clean Sky 2,<br>***Ralf Berghof*** | Experimental study of the damping effects on a SDOF sloshing tank<br>***Jon Martínez Carrascal,*** *Leo Miguel González Gutiérrez* | Advanced propulsion cycle design and analysis for STRATOFLY MR3<br>***Bayindir Saracoglu*** | Understanding the Role of Graphene on the Moisture Absorption in Graphene/polymer Nanocomposites<br>***Faisel Almudaihesh,*** *Haya Alfaris, Perminder Sangha, Rhys Pullin, Mark Eaton* | Numerical Study on the Forming Rules of 6061 Aluminum Alloy Complex Tubes in Incremental Tube Forming<br>***Danni Bai***, *Pengfei Gao, Yukun Li, Mei Zhan* | Rotorcraft Drivetrains: Improvement of Traditional Gearboxes, Transmissions for new rotorcraft concepts, Safety of Drivetrains – Approaches of TU Wien<br>***M. Weigand*** |
| 12:00 | 12:20 | ACONIT: Actuators for Surge Control in Gas Turbine<br>***Antoine Dazin*** | Impact Monitoring in Horizon Europe: University view,<br>***Helge Pfeiffer*** | Advances in Reduced Order Modelling for Linear and Nonlinear Sloshing<br>***Marco Pizzoli,*** *Francesco Saltari, Franco Mastroddi* | STRATOFLY MR3: analysis of operational procedures for a high-speed aircraft<br>***Oscar Gori***, *N. Viola, R. Fusaro* | Stress relaxation of thermal stresses developed in the curing cycles of carbon fibers-epoxy laminates<br>***Alfonso Maffezzoli,*** *Francesco Nicassio, Francesca Lionetto, Gennaro Scarselli* | Micromechanical Modeling of Deformation and Damage Heterogeneity of TA15 Titanium Alloy with Tri-modal Microstructure<br>***Mengyan Fei,*** *Pengfei Gao, Zhenni Lei, Mei Zhan* | Loss of Lubrication in Rotorcraft Transmission: Improvement and Simulation<br>***A. M. Faruck,*** *M. Weigand, C. Gachot* |
| 12:20 | 12:40 | Towards in-flight aero-engine inlet distortion measurements using seeding-free, non-intrusive flow diagnostic methods<br>***Pavlos Zachos*** | Impact Monitoring in Horizon Europe: RE's view,<br>Olaf Heintze | Proper Orthogonal Decomposition and Wavelet Analysis of Sloshing Flows<br>***Tiziano Pagliaroli,*** *Francesco Gambioli, Francesco Saltari, Jonathan Cooper* | Virtual Analysis of Sypersonic Combustion<br>***Christer Fureby*** | Supramolecular chemistry applied to structural materials<br>***Elisa Calabrese,*** *Liberata Guadagno, Luigi Vertuccio, Carlo Naddeo, Giuseppina Barra, Marialuigia Raimondo, Andrea Sorrentin, Wolfgang H. Binder, Philipp Michael Sravendra Rana* | A fast simulation strategy for flow spinning: adaptive octree mesh refinement algorithm based on dual-mesh method<br>***Zhuolei Zhai,*** *Yunda Dong, Mei Zhan, Zhipeng Shi, Xiaoguang Fan* | TBD<br>***H. Ferschitz*** |
| 12:40 | 13:00 | | | Investigating the Impact of Non-Dimensional Fluid Properties on Violent Sloshing by means of High Fidelity Volume of Fluid Simulations<br>***M. Wright,*** *A.G. Malan, F. Gambioli* | | An extensive mechanical test campaign on nanocrystalline materials for aviation and space applications<br>***Panagiotis Bazios,*** *Konstantinos Tserpes, Spiros Pantelakis, Nikolaos Michailidis, Konstantinos Katakalos* | Effect of Rise and Fall Rate on Dwell Fatigue Behavior of Titanium Alloys<br>***Pandi Zhao***, *Songlin Shen, Mei Zhan, Zebang Zheng* | Advanced Materials and Technologies for Compressor Blades of Small Turbofan Engines<br>***Dmytro Pavlenko,*** *Yaroslav Dvirnyk, Radoslaw Przysowa* |
| 13:00 | 13:20 | | | Prediction of energy dissipation in violent sloshing flows by Smoothed Particle Hydrodynamics<br>***Salvatore Marrone,*** *Javier Calderon, Jon Martinez, Matteo Antuono, Andrea Colagrossi* | | | Characteristics of Mechanical Properties of a Near-a Titanium Alloy with Tri-Modal Microstructure<br>***Yili Gong,*** *Pengfei Gao, Zhenni Lei, Mei Zhan* | Analysis of fuselage skin reinforcements with beam element models in flexible aircraft panels for ditching simulations<br>***Christian Leon Munoz,*** *Bertrand Langrand, Dieter Kohlgruber* |

| Time (CET) | | | ROOM 1 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|
| 13:00 | 14:00 | | Break |
| 14:00 | 14:30 | Keynote Lecture | Innovation Aspects in Design, Manufacturing and Testing of a Small Seaplane as Personal Transportation Vehicle<br>Prof.Ing. Leonardo Lecce • Novotech - Aerospace Advanced Technology Srl \| CEO & President |

| Rooms | | Room 1 (Clik to join the Virtual Meeting Room) | Room 2 (Clik to join the Virtual Meeting Room) | Room 3 (Clik to join the Virtual Meeting Room) | Room 4 (Clik to join the Virtual Meeting Room) | Room 5 (Clik to join the Virtual Meeting Room) | Room 6 (Clik to join the Virtual Meeting Room) | Room 7 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|---|---|---|---|---|
| Session Title | | Clean Sky building synergies with the regions: Innovation and Technologies created in the European aeronautics regions | LABOR Project Session | R&D Research in the Field of Aeronautics & Air Transport: ENABLEH2 Project Session | High Speed Air Vehicles (PART II) | Aerostructural Materials (PART II) | Advanced Manufacturing Technology for Aeronautics (PART II) | Aircraft Design and Propulsion (PART II) |
| Session Chair | | Dr. Christos Vasilakos<br>Clean Sky Joint Undertaking | Prof. Pasquale Chiacchio<br>University of Salerno, Italy | Dr. Vishal Sethi<br>Cranfield University, UK | Dr. Nicole Viola, Politecnico di Torino, Italy &<br>Dr. Catalin Nae, INCAS - National Institute for Aerospace Research, Romania | Prof. Roberto Pantani<br>University of Salerno, Italy | Prof. Mei Zhan & Prof. Yi Qin<br>Northwestern Polytechnical University, China & University of Strathclyde, UK | Prof. Michael Weigand<br>Vienna University of Technology, Austria |
| 14:30 | 14:50 | 14:30 - 14:35<br>*Introduction by Dr. Christos Vasilakos*<br>14:35 - 14:50<br>OSIRIS project overview<br>***Adeodato Altamirano Aguilar*** | Clean Sky 2 - REG IADP Overview and links with AIR ITD<br>***Vittorio Ascione,*** *Vito Perrupato, Rossella Valiante* | Enabling Cryogenic Hydrogen-Based CO2-free Air Transport (ENABLEH2)<br>***Bobby Sethi*** | Sustainability Key To Reinventing Commercial Supersonic Flight<br>***Andreas Hardeman,*** *Dr Lourdes Maurice* | Finite element analysis of shot peening applied to case-hardened Aeronautical gears<br>***Asghar Heydari Astaraee,*** *Sara Bagherifard, Mario Guagliano* | Simulation on dynamic recrystallization of magnesium alloy by cellular automaton method coupled with adaptive activation energy and matrix deformation topology<br>***Sibing Wang,*** *Wenchen Xu, He Wu, Ranxu Yuan, Xueze Jin, Debin Shan* | Conceptual design of a novel Unmanned Ground Effect Vehicle<br>***Charalampos Papadopoulos,*** *Dimitrios Mitridis, Kyros Yakinthos* |
| 14:50 | 15:10 | MIB project:<br>Modelling and control of a Modular Iron Bird to test movable surfaces actuators of aircraft<br>***Sergio Cotecchia,*** *Massimiliano Mattei* | New concepts for a robotized cell for the assembly and control of composite fuselage panel components<br>***Matteo Nisi,*** *D. Massa, A. Bruni, C. Cristalli* | Progress in Ultra-Low NOx Hydrogen Micromix Combustion Research in ENABLEH2<br>***Xiaoxiao Sun,*** *Bobby Sethi, Pierre Gauthier* | Climate Impact of Hypersonic Transport<br>***Volker Grewe,*** *Emmerig, Johannes, Hauglustaine, Didier, Cohen, Yann* | Detection of the diffusion properties of the encapsulated health-monitoring agent in advanced protective coatings: A solid-state NMR study<br>***S. Orfanidis,*** *M. Raimondo, L. Guadagno, I. Palazzo, E. Reverchon, A.S. Paipetis, M. Fardis, G. Papavasilliou* | FE simulation of isothermal forging for 7075 aluminium alloy diffuser<br>***Chunju Wang,*** *Leilei Wang, Bin Guo* | Conceptual design of an unmanned aerial vehicle for fast container transport<br>*V. Chernousov, A. Krutov,* ***E. Pigusov***, *V. Zamaraev* |
| 15:10 | 15:30 | GRECO project:<br>Manufacturing technology and tooling development for continuous manufacturing preform cutting and compaction with dry fiber composite material<br>***Miguel A. Castillo*** | Collaborative robotized assembly of composite fuselage panels<br>***Gaetano Lettera***, *Ciro Natale* | Development of fuel and heat management systems for liquid hydrogen powered aircraft<br>***Carlos Xisto,*** *Isak Jonsson, Tomas Grönstedt* | Hypersonic Airbreathing-Propelled Vehicles<br>***Marco Marini*** | Meshfree Methods of Airframe Stress Analysis<br>***Nikita Kalutskii,*** *Leonid Firsov* | Investigation on Electrically-Assisted Rolling Process of Surface Texture for Drag Reduction<br>***Shaoxi Xue,*** *Zhenhai Xu, Chunju Wang, Baosheng Liu, Debin Shan and Bin Guo* | Multi-Disciplinary Framework for Propeller Blade Design<br>*Andreas Kümmel,* ***Christian Breitsamter*** |
| 15:30 | 15:50 | MULTIDRILL project:<br>New multi-material drilling conditions<br>***Miguel A. Castillo*** | Robot deployed Laser-Ultrasonic NDT system for large aircraft structures<br>***Vicki James,*** *Dave Carswell, J Riise, P. Ian Nicholson, Norbert Huber, Martin Gärtner, Bernhard Reitinger, Edgar Scherleitner, Peter Burgholzer, Norbert Graf, Jon Phipps, Dave Burns, Ciro Incarnato* | Control and Assessment of Hydrogen Explosion Hazards on Aircraft and Airports – ENABLEH2 laboratory studies and large scale release consequence modelling<br>***Paul Holborn,*** *Claire Benson, James Ingram* | Hypersonic and suborbital vehicles integration in air traffic<br>***Marc Vales,*** *Marie-Christine Bernelin, Christophe Giraudeau* | Low-velocity impact response and compression after impact assessment of carbon fibre/epoxy composites containing Diels-Alder reaction mechanism based self-healing agent in electrospun form<br>***Athanasios Kotrotsos,*** *Anna Geitona, Stavros Tsantzalis, Vassilis Kostopoulos* | On Unsteady Flow Analysis of a Round Spike Blunt-Nose Afterbody in Mach 6 Flow<br>***Ashish Vashishtha,*** *Shashank Khurana* | Numerical Analysis of Cyclorotor Aerodynamic Properties in Hovering State<br>***Shawn Cogan,*** *Louis Gagnon* |
| 15:50 | 16:10 | CRO2 project overview<br>***Alain Toufine*** | TOD – Thermoplastics on Doors: Development of full scale innovative composites doors, surrounds and sub-structure for Regional Aircraft Fuselage barrel on-ground demonstrators<br>***Sofia Sampethai,*** *Antonio Miraglia, Francesca Felline, Ciro Rocco, Alessandro Ceresa, Umberto Raganato, Miguel Zavala, Bertrand Flipo, Georgios Liaptsis, Jonathan Riise, Xiaofei Cui, Minghui Wu* | Evaluating and roadmapping hydrogen propulsion in the ENABLEH2 project<br>***Anders Lundbladh,*** *Andrew Rolt, Devaiah Nalianda* | Integration of high-speed operations into the European ATM network<br>***Dragos Tonea*** | Investigation of different failure modes of a plate under differing impact conditions<br>***S. Kalapis,*** *A. Dafnis, K.-U. Schröder* | Additive Manufacturing – New Potentials for Aviation<br>***Ina Ludwig*** | Mechanism design for a VTOL flying wing UAV<br>***Dimitrios Mitridis,*** *Chris Bliamis, Pavlos Kaparos, Kyros Yakinthos* |
| 16:10 | 16:30 | Design challenges in the joint research project RACER<br>***Adrian Gaz***, *Katrin Mayrhofer* | SPARE project: Improvement of continuous compression moulding process for the production of thermoplastic composite beams<br>***Riccardo Angiuli,*** *Federica Dell' Anno, Leonardo Cosma, Umberto Raganato, Alessandra Passaro* | Low risk technology proposals for early adaptation of LH2 on board civil aircraft – implications of hydrogen fuel tank gravimetric efficiency assumptions on overall aircraft design<br>***Jon Huete,*** *Devaiah Nalianda, Pericles Pilidis, Bobby Sethi* | | Comparison between Selective Laser Melting and Conventional Maraging Steel in Corrosion-Fatigue Performance after various surface and heat treatments<br>***Apostolos Arvanitidis,*** *Fotis Kazelis, Emmanouil Bouzakis, Homero Castaneda, Nikolaos Michailidis* | Design of a composite aircraft nose wheel for a regional aircraft<br>*Jens-David Wacker,* ***Conchin Contell Asins***, *Dominik Laveuve, Andreas Büter* | Towards Energy-Autarchic Unmanned Aerial Systems (UAS): A Bionic Approach on Solar-Electric, Multi-Vehicle Aerial Platforms for Waterborne Operations<br>***Franz-Michael Sendner*** |
| 16:30 | 16:50 | Innovative manufacturing in the joint research project RACER<br>***Catalin Moisoiu***, *Katrin Mayrhofer* | | | | | Robotized Assembly and Inspection of Composite Fuselage Panels: the LABOR project approach<br>***Ciro Natale,*** *P. Chiacchio, M. Caterino, C. Cristalli, M. Fera, G. Lettera, M. Nisi* | |
| 16:50 | 17:10 | Innovative processes applied to the fuselage structure developed in RACER project<br>***Dorin Barsan***, *Adrian Gaz* | | | | | | |

| Rooms | | Room 1 (Clik to join the Virtual Meeting Room) | Room 2 (Clik to join the Virtual Meeting Room) | Room 3 (Clik to join the Virtual Meeting Room) | Room 4 (Clik to join the Virtual Meeting Room) | Room 5 (Clik to join the Virtual Meeting Room) | Room 6 (Clik to join the Virtual Meeting Room) | Room 7 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|---|---|---|---|---|
| Session Title | | Contributions to Clean Sky 2 FRC IADPs and SAT | LABOR Project Session - Open Discussion | R&D Research in the Field of Aeronautics & Air Transport: HOMER Project Session | The importance of Critical raw Materials in the aerospace industry, from advanced materials and fabrication to circular economy | Icing of Aircraft Structures | Advanced Manufacturing Technology for Aeronautics (PART III) | Aircraft Design and Propulsion (PART III) |
| Session Chair | | Dr. Marika Belardo<br>CIRA, Italy | Prof. Pasquale Chiacchio<br>University of Salerno, Italy | Prof. Dr. Andreas Schröder<br>German Aerospace Center (DLR), Germany | Dr. Santiago Cuesta Lopez<br>International Center in Advanced Materials and raw materials of Castilla y León - ICAMCYL, Spain | Prof. Liberata Guadagno<br>University of Salerno, Italy | Dr. Jie Zhao & Prof. Yi Qin<br>University of Strathclyde, UK | Prof. Michael Weigand<br>Vienna University of Technology, Austria |
| 16:40 | 17:00 | On the wing design of NGCTR-TD<br>***Belardo M.,*** *Diodati G., Beretta J., Paletta N., Giuliani V., Orlando S., Ariola P., Graziano M., Pezzella C., Di Palma L.* | ROUND TABLE DISCUSSION:<br>"Aviation industry: a driver for innovation in manufacturing, assembly and quality inspection" | HOMER - Holistic optical metrology for aero-elastic research<br>***Andreas Schröder,*** *Benjamin Leclaire, Bas van Oudheusden, Ludovic Chatellier, Christian J. Kähler* | Critical Raw Materials and the aerospace value chain<br>***S. Cuesta-López*** | Numerical procedure for electo-thermal anti-icing system simulation coupling interal thermal analysis and external multi-phisyc code<br>***A. Carozza,*** *F. Petrosino, G. Mingione* | Nanosecond laser micro-structuring of epoxy painting surfaces adhering to an aluminum alloy<br>***Wenlong Chang,*** *Xichun Luo, Yi Qin* | From FAST to FAST-OAD: An open source framework for rapid Overall Aircraft Design<br>***Scott Delbecq,*** *Christophe David, Sébastien Defoort, Peter Schmollgruber, Emmanuel Benard, Valérie Pommier-Budinger* |
| 17:00 | 17:20 | Preliminary studies of flight sensoring for loads and aeroelastic parameters estimation of the NGCTR-TD wing<br>*Cardozo Andrés, Beretta Jacopo, Paletta Nicola, Adden Stephan, Belardo Marika, Chiariello Antonio,* ***Di Palma Luigi*** | | Non-intrusive determination of the unsteady surface pressure and aerodynamic loads on a pitching airfoil<br>***Christoph Mertens,*** *Andrea Sciacchitano, Bas van Oudheusden, Jurij Sodja* | Recycling of Critical Raw Materials from Hydrogen Chemical Storage Stacks (PEMWE), Membrane Electrode Assemblies (MEA) and Electrocatalysts<br>***Anastasia Moschovi,*** *Ekaterini Polyzou, Iakovos Yakoumis* | Application of different Lagrangian Particle Tracking techniques for water impingement<br>***F. Petrosino***, *D. De Rosa, G. Mingione* | Redundancy Optimization in Robotized Assembly of Aerostructures<br>*Federica Storiale,* ***Enrico Ferrentino,*** *Pasquale Chiacchio* | The performance and emissions of a microturbine and turbofan powered by alternative fuels<br>***Radosław Przysowa,*** *Bartosz Gawron, Tomasz Białecki, Anna Łęgowik, Jerzy Merkisz, Remigiusz Jasiński* |
| 17:20 | 17:40 | Clash analysis of main landing gear door using advanced nonlinear finite element analysis<br>*Antonio Chiariello, Salvatore Orlando, Pasquale Vitale, Mauro Linari, Raffaele Longobardi,* ***Luigi Di Palma*** | | Numerical benchmarks for assessment of fluid-structure optical metrology and data assimilation algorithms<br>***Benjamin Leclaire,*** *Andrea Sciacchitano, Andreas Schröder* | Protective hard nitride coatings as a solution for CRM problem in aerospace industry or high-entropy alloys and high-entropy alloy-based coatings to reduce CRM consumption or substitute them in aerospace industry<br>***Bogdan Postolnyi*** | Film heating for anti-icing applications<br>***F. Petrosino,*** *P. Catalano, G. Mingione* | Pilot prototype production line for the hot-forming of aluminium alloy sheets with fast contact-cooling and multi-point tooling<br>***Song Yang,*** *Jie Zhao, Yankang Tian and Yi Qin* | Generative design case study of a CNC machined nose landing gear for an unmanned aerial vehicle<br>***Ioannis Zaimis,*** *Efstratios Giannakis, Georgios Savaidis* |
| 17:40 | 18:00 | Optimization of vibration levels of a main landing gear composite door for high-speed rotorcraft<br>***Maurizio Arena,*** *Antonio Chiariello, Martina Castaldo, Luigi Di Palma* | | Addressing the aero-elasticity problem for MAVs<br>***Hortense Laeuffer,*** *Daniel Diaz, Jean-Christophe Dupré, Pascal Doumalin, Jean-Claude Grandidier, Marco Gigliotti, Frédéric Pons, Laurent David, Ludovic Chatellier* | Computational screening and multiscale modelling for discovery substitution of materials subject to extreme conditions in aviation<br>***Roberto Iglesias*** | Simulations of Two-Phase Flows over Aircraft Surfaces to Determine the Droplet Collection Efficiency Strelets<br>***D.Yu,*** *Zhuchkov R.N., Kozelkov A.S., Pogosyan M.A., Galanov N.G.* | Numerical and experimental investigation into laser-metal-deposition based additive manufacturing with Inconel 718 powder<br>***Yankang Tian,*** *Quanren Zeng, Andreas Reimer, Yi Qin* | In-Flight Thrust Measurement and Drag Estimation of an Unmanned Propeller Aircraft<br>***Dominique Bergmann,*** *Jan Denzel, Ole Pfeifle, Stefan Notter, Andreas Strohmayer* |
| 18:00 | 18:20 | Experimental Investigation of damage detection on structures with FSW junctions<br>*Belardo Marika,* ***Sorrentino Assunta***, *Chiariello Antonio, Di Palma Luigi, De Fenza Angelo* | | | Ultra-high temperature oxide ceramics for aerospace industry: synthesis, coatings application and impact on energy efficiency<br>***Radu R. Piticescu,*** *Maria Luisa Grilli, Daniele Valerini, Adrian Mihail Motoc, Mihail Botan, Victor Manoliu* | New Aircraft Anti/de-Icing Technologies<br>***Luigi Vertuccio,*** *Fabiana Foglia, Roberto Pantani, Salvatore Russo, Generoso Iannuzzo, Liberata Guadagno* | Aeroelastic optimisation of manufacturable tow-steered composite wings with cruise shape constraint and gust loads<br>***Zhijun Wang,*** *DaniÃl Peeters, Roeland De Breuker* | An overview of the new research infrastructure for rotating labyrinth seals at COMOTI<br>***Bogdan Gherman,*** *Lica Flore, Razvan Carlanescu, Marius Enache* |
| 18:20 | 18:40 | Tailored design assessment for the CFRP wing of the Next Generation Tilt Rotor supported by virtual allowable test method<br>***F. Starace,*** *S. D. Orlando* | | | Integration of new automotive cost effective materials and their additive manufacturing technologies<br>***Sergio Durante*** | | Off-Line-Programming and Inline Measurement for Sealing Automation – Ensuring fully automated sealant application in the industrial aircraft production<br>***Nihat Biyiklioglu,*** *Daniel Ludwig, Sascha Quast, Thomas Schwane* | Enhancing preliminary aircraft design through operational considerations : a data-driven approach<br>***Sébastien de Longueville***, *Joël Jézégou, Emmanuel Bénard, Yves Gourinat* |
| 18:40 | 19:00 | | | | Modelling activities in Precision Processing of materials<br>***Saurav Goel*** | | The development and trend of materials modelling for creep age forming of aluminium alloys<br>***Xi Wang, Yong Li,*** *Baoguo Chen, Zhusheng Shi, Jianguo Lin* | Development of a Flight Mechanics Simulation Computer based on a Flexible Aircraft Model for a Regional Aircraft<br>***Simone Malisani***, *Elisa Capello, Giorgio Guglieri* |

End of the 2nd Day of the 10th EASN Virtual Conference

# 10th EASN Virtual International Conference on
## Innovation in Aviation & Space to the Satisfaction of the European Citizens
### Preliminary Programme at a Glance

## DAY 3 | 04.09.2020

| Time (CET) | | | ROOM 1 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|
| 9:30 | 10:00 | Keynote Lecture | **The future of Aviation: the technology challenges ahead**<br>Dr. Marco Protti • Leonardo Aircraft Division \| VP Advanced Research |
| 10:15 | 10:45 | Keynote Lecture | **PRORA the Italian Programme for Aerospace Research**<br>Dr. Marcello Amato • CIRA \| EREA's Head of the Aeronautical Research Group |
| 10:45 | 11:00 | | Break |

| Rooms | | Room 1 (Clik to join the Virtual Meeting Room) | Room 2 (Clik to join the Virtual Meeting Room) | Room 3 (Clik to join the Virtual Meeting Room) | Room 4 (Clik to join the Virtual Meeting Room) | Room 5 (Clik to join the Virtual Meeting Room) | Room 6 (Clik to join the Virtual Meeting Room) | Room 7 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|---|---|---|---|---|
| Session Title | | ecoDESIGN and Sustainable Productivity | Implementation of Open Science in Aviation | R&D Research in the Field of Aeronautics & Air Transport: AW DRONES Project Session | Systems / Prognostics / Security (PART I) | Small Air Transport (SAT) Technologies (PART I) | Space Technologies | |
| Session Chair | | Mr. Torsten Moll<br>Fraunhofer-Gesellschaft, Germany | Dr. Gioia Venturini<br>SAFRAN Group, France | Mr. Damiano Taurino<br>Deep Blue, Italy | Prof. Matteo Dalla Vedova<br>Politecnico di Torino, Italy | Dr. Vittorio Di Vito<br>CIRA, Italy | Dr.-Ing. Athanasios Dafnis<br>RWTH Aachen University, Germany | |
| 11:00 | 11:20 | ecoDESIGN and Sustainable Productivity<br>*Torsten Moll* | The view and approach of the Commission & presentation of present and anticipated policies on OS<br>*Dr. Kostantinos Glinos: Head of Unit for Open Science at the European Commission, DG RTD* | Overview of the AW-Drones project<br>*Damiano Taurino* | Design of a large wind tunnel for risk assessment on-board Oil & Gas platforms<br>*Domenico D'Ambrosio, Roberto Marsilio, Gioacchino Cafiero, Gaetano Iuso, Anna Chiara Uggenti, Raffaella Gerboni* | Tactical Separation System for Small Air Transport Vehicles: design advancements in the COAST Project<br>*V. Di Vito, G. Torrano, G. Cerasuolo, M. Ferrucci* | HERA Mission LIDAR Altimeter Implementation<br>*Nicole G. Dias, Beltran N. Arribas, Paulo Gordo, Bruno Couto, Tiago Sousa, João Marinho, Rui Melicio, António Amorim* | |
| 11:20 | 11:40 | Geometry Model and Approach for Future Blisk LCA<br>*Kilian Fricke, Thomas Bergs* | The point of view of the Industry to underline the difficulties to marry OS and competitiveness<br>*Valérie Hachette: Head of R&T legal and IPR department, SAFRAN* | Performance-Based Regulation: the role of industrial standards and the AW-Drones meta-standard<br>*Filippo Tomasello , Marco Ducci* | Direct method of flexibility and rigidity using Mathcad software<br>*Odhise Koça, Anis Sulejmani, Parid Alimhilli* | Advanced Weather Awareness System for Small Air Transport Vehicles: design advancements in the COAST Project<br>*M. Montesarchio, A. Zollo, E. Bucchignani, M. Ferrucci* | Drag Control by Hydrogen Injection in Shocked Stagnation Zone of Blunt Nose<br>*Ashish Vashishtha, Dean Callaghan, Cathal Nolan* | |
| 11:40 | 12:00 | Validation of the simulation tool for environmentally friendly aircraft cargo fire protection system<br>*Arnav Pathak, Victor Norrefeldt, Marie Pschirer* | The point of view of a research laboratory and the opportunities/difficulties OS creates | Collecting and structuring drone-related global standards<br>*Sebastian Cain, Joost Vreeken* | Integration of rule-based 'Expert Systems' on RPAS capable of Specific Category Operations within the U-space: an original mitigation strategy for operational safety risks<br>*Federica Bonfante, Paolo Maggiore, Francesco Grimaccia, Edoardo Filippone, Matteo D. L. Dalla Vedova* | Jung's theorem application in en-route hazards description<br>*Piotr Grzybowski* | High Mach Number Drag Analysis of a Modern Lightweight Launch Vehicle<br>*Ainslie French, Antonio Schettino, Luca Romano* | |
| 12:00 | 12:20 | Efficient manufacturing and testing of aircraft<br>*Ana Claudia Nioac de Salles, Ruben Barrientos, Felix Behnisch, Sergej Illinzeer, Rudolf Emmerich* | The point of view of the publisher and their transformation due to OS | Assessing drone standards against regulatory requirements<br>*Matteo Natale* | Optical fibers applied to aerospace systems prognostics: design and development of new FBG-based vibration sensors.<br>*Matteo D.L. Dalla Vedova, Pier Carlo Berri, Paolo Maggiore, Gaetano Quattrocchi* | Enabling technologies for single pilot operations in in Small Air Transport Vehicles in the COAST Project<br>*V. Di Vito, J. Beran, T. Kabrt, P. Grzybowski, T. Rogalski, P. Maslowski, M. Montesarchio* | Advanced Design of High Entropy Alloys Based Materials for Space Propulsion (ATLAS), a new project for space propulsion<br>*Mario Guagliano* | |
| 12:20 | 12:40 | Manufacturing the next generation of aircraft seats: healthier, lighter, cost-effective and recyclable<br>*Rudolf Emmerich, Adrian Ortego Novillo, Felix Behnisch, Sergej Illinzeer, Ruben Barriento* | Use cases towards future Open Science model for air transport<br>*Afroditi Anagnostopoulou, Gabriele Pistilli, Fabio Cartolano, Michela Fioretto, Kristel Palts, Maria Boile* | The AW-Drones Open Repository<br>*Ilias Trochidis* | Diagnostics of Electro-Mechanical Actuators Based Upon the Back-EMF Reconstruction<br>*Pier Carlo Berri, Matteo D.L. Dalla Vedova, Paolo Maggiore, Gaetano Quattrocchi* | A Concept for an Integrated Mission Management System for Small Air Transport Vehicles in the COAST Project<br>*V. Di Vito, P. Grzybowski, P. Maslowski* | | |
| 12:40 | 13:00 | Development of SmarT Eco-friendly anticontamination technologies for LAminaR wings<br>*Mireille Poelman, M.E. Druart, T. Sénéchal, J. Palenzuela, G. Glabeke, J. van Beeck, D. Ghysselinckx, F. Bougard, S. Verschaeve, J. Bico, B. Abou, A. Lechantre, B. Martinet, R. Wattiez, A. Laurent, M. Farouz-Fouquet* | Implementation of Open Science in Aviation<br>ROUND TABLE | U-Space regulatory framework and the related standards<br>*Hans Schrawuen* | Model-based strategy and surrogate function for health condition assessment of actuation devices.<br>*Pier Carlo Berri, Matteo D.L. Dalla Vedova, Paolo Maggiore, Gaetano Quattrocchi* | Compact Computing Platform for Future General Aviation<br>*P. Zaykov, J. Beran, P. Axman* | | |
| 13:00 | 13:20 | Effect of increased recirculation rate on the humidity and CO2 level in the cabin<br>*Victor Norrefeldt, Florian Mayer, Britta Herbig, Pawel Wargocki, Ria Ströhlein, Ivana Ivandic, Lei Fang* | | | | | | |
| 13:20 | 13:40 | | | | | | | |

| Time (CET) | | | ROOM 1 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|
| 13:00 | 14:00 | | Break |
| 14:00 | 14:30 | Keynote Lecture | **Horizon 2020 Collaborative Aviation Research - an overview of results and impact**<br>Dr. Marcel Rommerts • Head of Unit - Transport Research, Innovation and Networks Executive Agency (INEA) |

| Rooms | | Room 1 (Clik to join the Virtual Meeting Room) | Room 2 (Clik to join the Virtual Meeting Room) | Room 3 (Clik to join the Virtual Meeting Room) | Room 4 (Clik to join the Virtual Meeting Room) | Room 5 (Clik to join the Virtual Meeting Room) | Room 6 (Clik to join the Virtual Meeting Room) | Room 7 (Clik to join the Virtual Meeting Room) |
|---|---|---|---|---|---|---|---|---|
| Session Title | | EREA TRIG (Technology and Research Infrastructure Group) Group on infrastructures | OSCAR Project Session | R&D Research in the Field of Aeronautics & Air Transport: NHYTE Project Session | Systems / Prognostics / Security (PART II) | Small Air Transport (SAT) Technologies (PART II) | Digital solutions for future aircraft developments (PART I) | |
| Session Chair | | Mr. Jose Vicente Garcia Calatayud<br>National Institute for Aerospace Technology (INTA), Spain | Mr. Gerhard Pauly<br>Fraunhofer IFAM, Germany | Dr. Marco Barile<br>Novotech Aerospace Advanced Technology, Italy | Prof. Matteo Dalla Vedova<br>Politecnico di Torino, Italy | Dr. Vittorio Di Vito<br>CIRA, Italy | Mr. Andreas Koetter<br>ALTRAN, Germany | |
| 14:30 | 14:50 | EREA TRIG (Technology and Research Infrastructure Group)<br>*Adriano Coronel, Jose García* | TBD | A holistic design index applied for assessing the suitability of a modified autoclave process to produce a flat skin panel made from a novel hybrid thermoplastic material<br>*Ch.V.Katsiropoulos, Sp.G.Pantelakis* | High gear ratio mechanical transmissions for actuators: Simplified models for efficiency under opposing and aiding loads.<br>*Pier Carlo Berri, Matteo D.L. Dalla Vedova, Paolo Maggiore, Andrea Manuello Bertetto* | Evaluation of the production results of selected technologies based on cabin part and engine nacelle in the SAT-AM (Clean Sky 2) project<br>*P. Gula, D. Ulma, J. Dudziak, A. Gawlik* | SafeUrChain - Security and Traceability in civil production and value networks through Blockchain Token economy<br>*Gaston Pukies* | |
| 14:50 | 15:10 | RINGO Project: final results<br>*Christophe Hermans* | TBD | A new approach for the simulation of Induction Welding Process of thermoplastic composite materials for aircraft structures<br>*Panagiota Polydoropoulou, George Lampeas, Spiros Pantelakis, Rosario Dotoli, Francesca Felline and Leonardo Cosma* | A new simplified fluid dynamic model for digital twins of electrohydraulic servovalves<br>*Matteo D.L. Dalla Vedova , Pier Carlo Berri* | The General Aviation Aircraft Path Planning Method at FRA Airspace Using Multi-Dimension Weights on Graph Edges<br>*Andrzej Majka, Jowita Pawluczy* | TOKEN ECONOMY - The driver for new business models and increased transparency and trust<br>*Gaston Pukies* | |
| 15:10 | 15:30 | Technology Infrastructures and Research. A success story"<br>*Victor Archilla* | TBD | Virtual testing activities for the development of a hybrid thermoplastic composite material for the Nhyte project<br>*Rosario Dotoli, Antonio Gerardi, Panagiota Polydoropoulou, Alfonso Carpio Rovira* | Observation glide LED lights pilot a visual orientation<br>*Yuliia Kvach* | Small Transport Aircraft Trajectory Management in Emergency Situation<br>*Andrzej Majka, Jowita Pawluczy*<br>**Remotely Piloted Aircraft systems (RPAS)** | DIBICHAIN - Blockchain as the backbone of Circular Economy<br>*Vincent Ackenhausen* | |
| 15:30 | 15:50 | | TBD | Validation of a novel thermoplastic material concept for the production of primary aerostructures, based on a continuous and highly automated OoA fabrication process<br>*Marco Barile, Leonardo Lecce, Giuseppe Barile* | Phase image visualization and enhancement through an optical image processing full scale Schlieren system<br>*Gabriella Serafino* | Application of SORA methodology to an RPAS maritime patrolling operational scenario<br>*Gabriella Serafino* | AUTOKAB – Reinvent digital supply chains with DLT technologies<br>*Vincent Ackenhausen* | |
| 15:50 | 16:10 | | TBD | On the numerical prediction of heating law for PEI-CF/PEEK hybrid thermoplastic composites in a laser-assisted automated fibre placement *Omar Baho, Gilles Ausias, Yves Grohens, Marco Barile, Leonardo Lecce, Julien Férec* | Learning how to escape the unthinkable with virtual reality: the case of pilots' training on emergency procedures<br>*Ioanna K. Lekea, Dimitrios G. Stamatelos, Pantelis Raptis* | Auto-taxi HMI for RPAS increasing Pilot situation awarness and decreasing his workload<br>*Gabriella Serafino* | VIABLE - Augmented & Virtual Reality for pre-visualization of next generation systems<br>*Gianmarco Scalabrin* | |
| 16:10 | 16:30 | | | Manufacturing process parameters tuning for New Hybrid Thermoplastic Material<br>*Giuseppe Totaro, Marco Raffone, Antonietta Mormone, Francesca Felline* | Increased Requirements and Corresponding Power Demand of All-electric Environmental Control System of Large Commercial Aircraft<br>*Dragan Kozulovic* | Operational concept for integrating RPAS into terminal airspace<br>*Javier Pérez-Castán, Fernando Gómez Comendador, Rosa María Arnaldo Valdes, Alvaro Rodríguez-Sanz and Jaime Aznar Olmos* | | |
| 16:30 | 16:50 | | | Induction welding process set up of hybrid thermoplastic composite materials for aircraft structures<br>*Fransesca Felline, Leonardo Cosma, Giuseppe Buccoliero, Silvio Pappada, Rosario Dotoli* | | | | |

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|---|---|---|---|---|---|---|---|---|
| Session Title | | Aircraft Testing | PARE Project Session | Major outcomes of the SMS project regarding innovation in disruptive wings configurations enabling high performances and greening | Systems / Prognostics / Security (PART III) | Advanced Composites for Aerospace Applications: Modeling - Testing - Validation \| Adhesion Science & Technology | Digital solutions for future aircraft developments (PART II) | |
| Session Chair | | Prof. Ivo Jebacek<br>Brno University of Technology, Czech Republic | Prof. Luiz Manuel Braga da Costa Campos<br>Instituto Superior Técnico, Portugal | Dr. Marianna Braza<br>CNRS, France | Prof. Matteo Dalla Vedova<br>Politecnico di Torino, Italy | Prof. Konstantinos Tserpes<br>University of Patras, Greece | Mr. Andreas Koetter<br>ALTRAN, Germany | |
| 16:40 | 17:00 | Determination of 1st Buckling and Collapse Loads for Integrally Stiffened Panels by Artificial Neural Network and Design of Experiment Methodology<br>*Selcuk Guzel, Ercan Gurses* | The PARE project and 58 recommendations for aeronautics research in Horizon Europe<br>*Luis Campos, Pedro Serrão, João Oliveira* | Large-Scale high-lift Morphing Wing of A320 type, based on Electro-Mechanical Actuators and Shape Memory Alloys<br>*A. Giraud, B. Nogarede, Y. Bmegaptche-Tekap, M. Carvalho, D. Harribey, C. Nadal, J.F. Rouchon, M. Braza* | The effects of using Virtual Reality technology in a pilot learning training application<br>*Miroslaw Mazurek, Pawel Dymora, Bartosz Kowal, Romana Sliwa* | The effect of hygrothermal ageing on the bulk mechanical properties and lap-shear strength of the bio-based epichlorohydrin/cardanol adhesive<br>*Vasileios Tzatzadakis, Konstantinos Tserpes* | Using Naïve Bayes Machine Learning approach to evaluate performance on spare parts request for aircraft engines<br>*Antonio Caricato* | |
| 17:00 | 17:20 | Measurements of deformation, schlieren and forces on an OAT15A airfoil at buffet conditions<br>*Alessandro Accorinti, Tim Baur, Sven Scharnowski, Johannes Knebusch, Johannes Dillinger, Yves Govers, Jens Nitzsche, Christian J. Kähler* | PARE analysis of intermediate 2020 goals and of further steps to ACARE Flightpath-2050 goals in perfecting environment and energy supply *Oleksandr Zaporozhets, Volodymyr Isaienko, Kateryna Synylo* | Aerodynamic Performance of an A320 type morphing wing in the transonic regime<br>*P. Flaszynski, R. Szwaba, P. Doerffer, Jean-Baptiste To, N. Simiriotis, A. Marouf, J.F. Rouchon, M. Braza* | The Development of Avionics Database for Optimization of Avionics Integration<br>*Mohammad Radaei, Huamin Jia* | Numerical simulation of laser shock-induced composite delamination and adhesive debonding<br>*Kosmas Papadopoulos, Konstantinos Tserpes, Ioannis Floros* | Building Digital Transformation to improve NGCTR design and simulation *Michele Sesana, Alessandro Bardelli* | |
| 17:20 | 17:40 | Development of a prototype test system for certification of curved fuselage panels through experimental validation<br>M. Jiménez, R. Cabrera, J.L. Armario, E. Graciani, A. Estefani, K. Munñoz, F. París, E. García | Alternative fuels for aviation: possible alternatives and practical prospects of biofuels<br>*Renata Adami, Patrizia Lamberti, Vincenzo Tucci, Liberata Guadagno, Rosa Arnaldo Valdés, Oleksandr Zaporozhets, Pawel Wacnik, Serhat Burmaoglu* | Electroactive morphing effects in the aerodynamic performance of a cambered A320 wing by means of time-resolved PIV<br>*M. Carvalho, C. Nadal, D. Harribey J.F. Rouchon, M. Braza* | Mini-Multi Interface Box Simulator (MMIBS)<br>*J.G. Doblado Alberto Garcia, Antonio Leopoldo Rodriguez, Maria Angeles Martin Prats, Antonio Barea, Daniel Crespo, Inmaculada Soldado, Guillermo Barrera* | Comparison of lightning strike damage in bolted and bonded CFRP joints using a coupled electrothermal model<br>*Alexandros Sofianos, Konstantinos Tserpes* | Capabilities of the Regional Cabin Demonstrator as digital twin for a future test mock-up<br>*Andreas Lindner, Victor Norrefeldt* | |
| 17:40 | 18:00 | *Numerical Methodology for Aerostructures Hail Impact Damage Prediction*<br>*D. Ivančević, I. Badurina Žakan, I. Smojver* | Empowering talent: Women in Aviation<br>*Quaiela Costa, Joana Soares, Patrizia Lamberti, Liberata Guadagno, Daniela Geraldes, Filipa Manaia* | High-Fidelity Numerical simulation of a morphing A320 wing in subsonic speeds and sensitivity evaluation<br>*N. Simiriotis, A. Marouf, K. Diakakis, G. Tzabiras, F. Kramer, F. Thiele, M. Braza* | Integration of the helmet-mounted display system<br>*Slawomir Michalak* | Buckling analysis of large-scale stiffened composite structures by macromodelling approach<br>*D. G. Stamatelos, G. N. Labeas* | | |
| 18:00 | 18:20 | Identification of resonant vibrations of the miniature unmanned airplane with contact and non-contact measuring techniques<br>*Olejnik Aleksander, Rogólski Robert, Szcześniak Michał* | The role of Climate Change Levy schemes in aviation decarbonization by 20250<br>*Valdes Comendator* | Aerodynamic performance increase of a morphing A320 wing with high-lift flap by means of Hi-Fi CFD approaches<br>*A. Marouf, N. Simiriotis, J.B. Tô, Y. Bmegaptche, M. Braza* | Search and rescue operations support from the helicopter<br>*Slawomir Michalak* | Optimization and strength tests of compressed composite tube as a main element of mechanical flight control system for small aircraft<br>*Wojciech Grendysa* | High Efficient Automated Assembly Lines<br>*Thorsten Dillhoefer* | |
| 18:20 | 18:40 | | Electrification of aviation: propulsion on-board and ground systems<br>*Juergen Garche, Martin Schmuck, Stefan Koller* | Multi-point sensing by dynamic pressure measurements through Bragg grating applied in the SMS project<br>*A. Kitouni, B. Paris, V. Lamour, Y. Bmegaptche, A. Marouf, M. Carvalho, M. Braza* | A Team Allocation Decision for Aircraft Fleet Maintenance<br>*Duarte P. Pereira, Rui Melicio, Victor M.F. Mendes* | Finite Element Analysis of Composite Matrix Material with Micro-damage Healing Ability<br>*I. Smojver, D. Ivančević, D. Brezetić* | | |
| 18:40 | 19:00 | | | | | Conceptual design and parametric structural modeling of a FWAV biomimetic flapping wing<br>*Saiaf Bin Rayhan* | | |

End of the 3rd Day of the 10th EASN Virtual Conference