

6th CEAS Air & Space Conference Aerospace Europe 2017

Organized by





On behalf of





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CEAS President's message



CEAS @WORK

At the last General Assembly meeting Elisabeth Dallo (representing AAAF) and Paul Eijssen (representing NVvL) were elected as new Trustee Board members and Torben Henriksen (ESA) as branch On 21 March we had our first CEAS officers meeting in the PolSCA Brussels office. From 2017 onwards we will meet twice a year as trustees to discuss strategic matters and twice the officers will hold meetings dealing with the day-to-day business of

the council. Important points on the agenda of the officers meeting of course were the preparation of the CEAS Aerospace Europe Conference 2017, nominations received for the CEAS awards, 25 years of CEAS and CEAS Aeronautical and Space Journals.

In the framework of our contribution to the EU ECAero-2 project together with sister societies ECCOMAS, ERCOFTAC, EUCASS, EUROMECH and EUROTURBO the Aerospace Europe platform has been established (http://aerospace-europe.eu). The platform has been created with the aim of providing a central hub for professionals with an interest in the development and applications of technologies in all areas relevant to Aeronautics and Astronautics. Main focus is on the dissemination of information and the promotion of knowledge transfers at a European scale. CEAS is using the platform for publishing the papers presented at our conferences and thematic events, as far as not issued in our journals. The platform also contains a rich overview of all relevant aeronautical events.

CEAS is in contact with PEGASUS, the European network of aerospace engineering faculties, about setting up an EU quality system in the higher education in aerospace.

CEAS Aerospace Europe Conference in 2017: European Aerospace: Quo Vadis?

The preparations for our CEASAerospace Europe conference from 16-20 October in Bucharest, organized by our Romanian society AAAR, are progressing well. The call for papers has been closed. The preliminary conference program contains 40 technical sessions, 7 special sessions and 6 workshops on interesting topics. Plenary sessions will deal with



subjects like strengthening international collaboration, advances in aerospace sciences and the future of space exploration. Progress on the preparations and a first draft conference programme can be followed on the conference website (http://ceas2017.org/). We would like to welcome you all in the prestigious Palace of the Parliament that has been chosen as conference venue. The registration process has started and we still can accommodate companies and organizations to take part in the exhibition.

Cooperation

During a first joined meeting with EASN, represented by Spiros Pantelakis (as chairman of the European aeronautics science network association), we have signed a cooperation agreement. Both our organisationsprovide services and conduct activities some of which arequite similar, others are rather complementary. By joining forces in certain areas I'm convinced we can reach out to more professionals, increase our impact and be more efficient in organizing events. Traditionally EASN has strong links with universities and thus scientists, where we as CEAS reach out more to industry, applied research and thus engineers, it shows that we can reinforce each other. This is why we have agreed from 2019 onwards to jointly organize the biennial European aerospace conferences with a joined technical committee.

Aeronautical and Space Journals

The first volumes of this year for both of our successful journals with 27 excellent scientific articles have been published in March. End of last year we have welcomed Hansjörg Dittus (DLR), who took over the position of Editorin-Chief of the Space Journal succeeding Constantinos Stavrinidis. In addition Olga Trivailo (DLR) and Rafael Bureo Dacal (ESA) have joined the Managing Editor team of the Space Journal. We are very grateful for the effort and enthusiasm of Steve who significantly contributed to the success of the CEAS Space Journal from its first edition in 2011 onwards!

Christophe Hermans



About

The 6th CEAS Air & Space Conference aims to promote new visions and trends in aeronautics and space science and technology according to its fundamental theme: "European Aerospace: Quo Vadis?". The Conference aims to bring together academia, research, industry, policy maker and maintenance, repair and operator stakeholders for a fruitful exchange of the latest ideas and developments in European aeronautics and aerospace.

MAIN OBJECTIVES OF THE CONFERENCE:

- To contribute to establishing European leadership in aeronautics and space science and technology;
- To develop a real scientific collaboration between European scientists and engineers in the field of aeronautics and space;
- To facilitate the reunion of the main stakeholders in the European aeronautics and space field;
- To encourage young professionals and graduate students to participate and contribute in a major European scientific event.
- To advance towards transforming the current CEAS Conference series into a European Aerospace Congress



CEAS & AAAR Background

The Council of European Aerospace Societies (CEAS) is an International Non-Profit Association, with the aim to develop a framework within which the major Aerospace Societies in Europe can work together. CEAS is involved in every aspect of the aeronautics and space environment and includes currently fourteen European national aerospace societies, and one Russian research institute, with a combined number of individual members of roughly 35.000. CEAS also includes five Corporate Members.

Following its establishment as a legal entity, the association began its operations on January 1st, 2007. Its basic mission is to add value at a European level to the wide range of services provided by the constituent Member Societies, allowing for greater dialogue between the latter and the European institutions, governments, aerospace and defense industries and academia.

The Aeronautics and Astronautics Association of Romania (AAAR) has been founded in 2006 by a group of aeronautics and astronautics professionals, aiming at promoting the field of aerospace related activities.

The Conference is supported by the EU E-Caero2 project and its partner societies EUCASS, ECCOMAS, EUROMECH, EUROTURBO, and ERFCOTAC.

EUROTURBO has also contributed to the Conference by providing expert reviewers for the Scientific Committee of the Conference.

The Conference is also supported by the CEAS partner organization European Aeronautics Science Network organizer of the 7th EASN International Conference.

The 13th European Workshop on Aircraft Design Education EWADE 2017 will be organized as part of CEAS 2017 as a full day event, on the 4th day of the Conference.



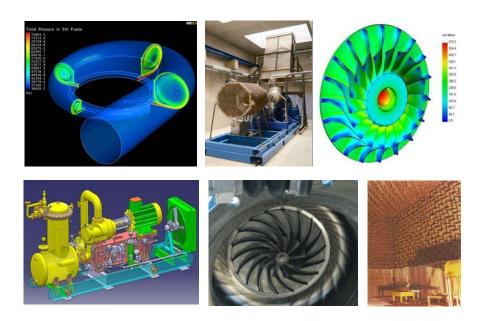
COMOTI – National Research & Development Institute for Gas Turbines

COMOTI National Research and Development Institute for Gas Turbines is the only unit in Romania specialized in development and integration of scientific research, constructive and technological design, manufacturing, experimentation, testing, technological transfer and innovation in the field of aviation turbine engines, gas turbine industrial machines and high speed blade machines.

Constant concern led to high reliability industrial products: power sets, electrical or turbine natural gas compressor sets and gas turbine cogenerative groups.

Continuous growth of quality and positive recognition both on internal and external market of the C-DI activity taking place in the institute, sustained by multiplying domain proficiency of I.N.C.D.T. COMOTI's researchers, allowed involvement in present days with scientific research, design, testing and small production in main research fields:

- 1. aviation turbine engines;
- 2. consume reduction, including new types of turbo engines fuel, co-generation, unconventional forms of energy, improvement of energetic efficiency for natural gas compression systems, etc.;
- 3. environment protection, noise reduction in aircraft and industrial turbo engines, wasted waters treatment units, air ventilation systems for the biological stage of wasted water cleaning.





PROGRAMME AT A GLANCE

The Aerospace Europe CEAS 2017 will take place in the Palace of the Parliament, 2-4 Izvor St., Sector 5, 050563, Bucharest, Romania.

The Palace of the Parliament building is the world's second largest administrative building, after The Pentagon in the United States, and is the seat of the Parliament of Romania.

The colossal parliament building is known for its ornate interior composed of 23 sections, and houses the Romanian Senate and Chamber of Deputies, three museums (The National Museum of Contemporary Art, the Museum of Communist Totalitarianism and the Museum of the Palace) and an international conference center.

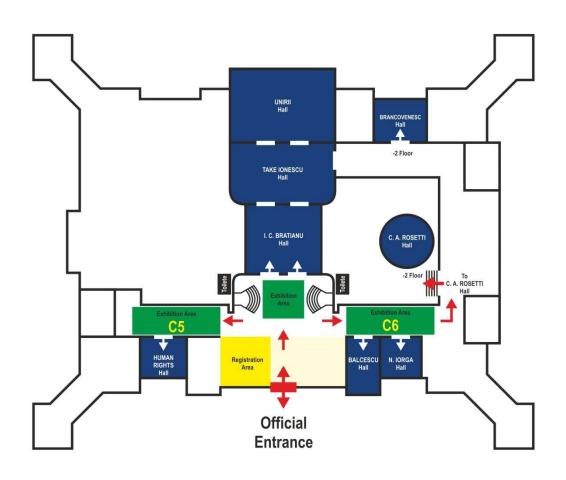


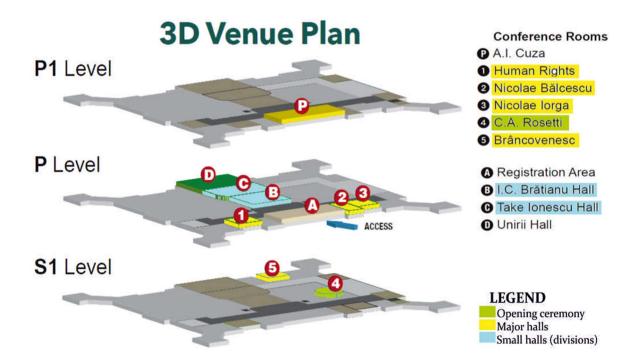
The CEAS 2017 Conference will be held in five conference rooms:

- Sala Rosetti (plenary sessions, opening day);
- Sala "Drepturile Omului" (plenary sessions, workshops, special sessions);
- Sala Bălcescu (workshops);
- Sala Iorga (technical sessions, workshops and special sessions);
- Sala Bratianu (technical sessions);
- Sala Take Ionescu (lunch, welcome cocktail);
- Recepion Area (exhibition)

On Friday 20 October technical tours will be organized at COMOTI/INCAS, Romaero and Magurele (Bucharest), Airbus/IAR Brasov (Brasov) and Aerostar (Bacau).

SITE MAP







SOCIAL EVENTS

Music Concert

The Engineers' Orchestra will perform in **C.A. Rosetti Hall** on **Monday 16 October 18.45-19.45** and the orchestral ensemble will have minimum 50-55 instrumentalists. The orchestra structure will have violins, violas, cellos, contrabass, wood instruments, brass instruments and percussion to ensure an extensive and appealing sonority.

The orchestra will perform 7 songs, each song will be well known and accessible to spectators less familiar with symphonic music.

Concert programme:

- 1. Wolfgang Amadeus Mozart Overture of "Figaro's Wedding" 6 minutes
- 2. Gioachinno Rossini Overture of "Barber of Sevilla" 7 minutes
- 3. Gioachinno Rossini Aria "Una vocce poco fa" from "Barber of Sevilla" opera, soprano Madalina STAN 7 minutes
- 4. Edward Elgar "Salut d'amour" 6 minutes
- 5. Leo Delibes Aria "La fille de Cadiz" bolero for soprano and orchestra soloist Madalina STAN 6 minutes
- 6. Ludwig van Beethoven 5th Symphony part I, Allegro con brio 10 minutes
- 7. Iosif Ivanovici"Danube waves" waltz 8 minutes

Welcome Cocktail

Enjoy snacks and drinks and get to meet with your peers during the reception in the **Brancovenesc Hall, Monday 16 October 20.00-21.30**.







Conference Dinner

Romanian traditional cuisine, selected wines and quality sound backgrounds come to complement your culinary delights in a space filled with history. The Mogosoaia Palace, is about 15 km from Bucharest, and for nearly 120 years belonged to the Brancoveanu family. It was built between 1698-1702 by Constantin Brâncoveanu. The dinner will take place on **Wednesday 18 October 18.00-21.00**, and the busses will drive delegates to Mogosoaia (departure at **16.00** hours in front of conference center) and back to Bucharest after dinner (estimated arrival 22:00).









KEYNOTE SPEAKERS

The Aerospace Europe CEAS 2017 Conference will be honored by the participation of several outstanding keynote speakers:

Stephen AIREY - Head of the Cooperating & Associate States Section, European Space Agency (ESA), PAris, France

Frank BRENNER - General Manager, EUROCONTROL – European Organization for the Safety of Air Navigation, Brussels, Belgium

Olivier CHAZOT, Ph.D. - Professor of Thermal Power Engineering. Head of Aeronautics and Aerospace Department. "von Karman" Institute for Fluid Dynamics, Brussels, Belgium

Valentin CIMPUIERU - General Manager, Romanian Air Traffic Services Administration ROMATSA, Romania

Dominique COLLIN, Ph. D.- Head of Acoustics Department. Safran Group – SNECMA, France

Mihnea COSTOIU - Professor. Rector of the "Politehnica" University, Bucharest, Romania

Sir Stephen DALTON - Air Chief Marshal, President of the Royal Aeronautical Society (RAeS), UK

Delia DIMITRIU, Ph.D. - Centre for Aviation, Transport, and the Environment, School of Science & the Environment, Manchester Metropolitan University, Manchester, UK

Sergiy DMYTRIYEV - Head of Marketing Department, Coordinator of works on International Development Projects and Cooperation. SE Ivchenko-Progress, Zaporozhye, Ukraine

Serge FLAMENBAUM - Director for R&T/R&D Airbus Defence and Space, France Cătălin FOTACHE, Ph.D - Senior Director, Pratt & Whitney Program Office at United Technologies Research Center (UTRC), East Hartford, Connecticut, USA

Laszlo FUCHS, Ph.D. - Professor of Fluid Mechanics. Department of Mechanical Engineering. Royal Technical University, Stockholm, Sweden

Andrea GENTILI - Deputy Head of the Unit "Aviation", DG Research and Innovation, European Commission, Belgium



Lucian GEORGESCU, Ph.D. - Ministry of Research and Innovation. Romanian Government

Rolf HENKE, Professor - Member of the Executive Board of DLR. President of the German Society for Aeronautics and Astronautics Lilienthal –Oberth (DGLR), Chairman of the Advisory Council for Aviation Research and Innovation in Europe (ACARE)

Christophe HERMANS - CEAS President. Deputy director at DNW German Dutch Wind Tunnels. Chief Technology Advisor at NLR – Netherlands Aerospace Centre

Charles HIRSCH, Ph. D - President of NUMECA International, NUMECA USA Inc. and NUMFLO, Brussels, Belgium

Peter HOTHAM - Deputy executive director, SESAR Joint Undertaking, Brussels, Belgium

Laurent LEYLEKIAN, Ph. D. - Program Manager, ONERA, Paris, France Juan Manuel LORA ALONSO - President of EUROAVIA

Catalin NAE, Ph.D - General Director of the Romanian National Aerospace Research Institute "Elie Carafoli", Bucharest, Romania.

Guillermo PANIAGUA PEREZ, Ph.D. - Professor of Mechanical Engineering. School of Mechanical Engineering, Purdue University, West Lafayette, Indiana, USA

Spiros PANTELAKIS, Ph.D. - Chairman of the European Aeronautics Science Association (EASN), Professor, University of Patras, Greece

Florin PĂUN, Ph.D - Group Innovation Director, Akka Technologies, , Paris, France Olivier PENANHOAT, Ph. D. - Technical Coordinator Emissions & Environment. Research and Technology Direction, Safran Aircraft Engines, Villaroche Center, Moissy Cramayel, France

Marius Ioan PISO, Ph. D. - President of the Romanian Space Agency ROSA.

Octavian Thor PLETER, Ph.D - Assistant Professor. Dean of the Department of Aerospace Engineering. "Politehnica" University of Bucharest, Romania

Raoul POPESCU - General Manager Pratt & Whitney Aeropower Rzeszow, Vice – President of Aftermarket and APU, Pratt & Whitney, Hartford, CT, USA.

Bruno SAINJON - Chairman EREA, Operations Director DGA, President of the Administration Council ONERA, Paris, France



Valentin SILIVESTRU, Ph.D - President General Manager of the Romanian National Research and Development Institute for Gas Turbines COMOTI, Bucharest, Romania.

Virgil STANCIU, Ph.D - President of the Aeronautics and Astronautics Association of Romania. Professor. Department of Aerospace Engineering. "Politehnica" University of Bucharest, Romania

Joachim SZODRUCH, Ph.D - Hamburg Aviation and IFAR, Germany

Michael WINTER, Ph.D - Senior Fellow for Advanced Technology, Pratt & Whitney, Hartford, CT, USA.

Sorin ZGURA, Ph.D - Director, Institute of Space Science, Magurele, Ilfov, Romania.



SPECIAL SESSIONS AND WORKSHOPS

ACARE SRIA

Workshop organized by the Advisory Council for Aviation Research (ACARE), where the updated Strategic Research and Innovation Agenda (SRIA), expected in June, will be disseminated and discussed;

Research Infrastructures

Workshop on the current status and future development needs and directions for the worldwide research infrastructure. With the participation of the Italian Aerospace Research Center – CIRA, "von Karman" Institute for Fluid Dynamics, Purdue University, and COMOTI.

EREA "Future Sky"

Workshop organized by EREA, the association of European Research Establishments in Aeronautics on its Joint Research Initiative in which development and integration of aviation technologies are taken to the European level, and based on the alignment of national institutional research for aviation by setting up joint research programmes. The session will be chaired by Mr. Joseph KASPAR, General Manager at VZLU, Czech Republic, EREA Vice Chair and Chair of Future Sky Board.

Constant volume and distributed combustion

Special session organized by COMOTI and will gather presentation of the latest research results in the field. Some of the latest results obtained in the FP 7 project TIDE will be presented.

AGILE – Aircraft 3rd Generation MDO for Innovative Collaboration of Heterogeneous Teams of Experts

Special sessions organized by DLR on the latest results from the AGILE Horizon 22020 project aimed at developing the next generation of MDO and aircraft design and on the exploitation activities dedicated to education, including the "AGILE design challenge", dedicated to the Academia and Research organizations.



Aircraft Flow Control Technologies – AFloNext

AFLoNext is a four-year integrated project (level 2) with the objective of proving and maturing highly promising flow control technologies for novel aircraft configurations. The EC project AFLoNext targets on maturing flow, loads and noise control technologies for transport aircraft. Within the project, two distinct activities focused on active flow control application. CEAS 2017 will include a workshop aimed at the dissemination of the project results in WP 2, targeting local flow separation control at local areas of the wing to improve the low-speed performance, and WP5, addressing flow control in the cruise regime for stabilizing the shock-boundary layer interaction for buffet control.

Space Technology and Advanced Research

Workshop organized by the European Space Agency ESA and presenting results of the STAR program.

Innovation in Aero - Engines

Workshop organized jointly by CEAS partner societies EUROTURBO, ECCOMAS, EUCASS, EUROMECH and E-CAero2.

Wind Turbine Design and Technology

Workshop on the advances in the field of wind turbine design and manufacturing organized by COMOTI.

Future Through Education

Workshop organized by Euroavia the European Association of Aerospace Students, representing the interests of over 2000 students from 38 universities in 19 European countries.

European Workshop on Aircraft Design Education - EWADE

The 13th European Workshop on Aircraft Design Education EWADE 2017 will be organized as part of CEAS 2017 as a full day event, on the 4th day of the Conference. The workshop will discuss recent advances in aircraft design (research and teaching) and is



organized by Prof. Dr.-Ing. Dieter SCHOLZ, MSME from the Hamburg University of Applied Sciences. Details can be found here.



TEHNICAL VISITS

CEAS 2017 is pleased to offer 5 technical tours in places of interest like major R&D centers and companies in the aerospace industry. A pre-registration is needed to attend the tours.

COMOTI & INCAS

COMOTI Turbine Engines Research and Development Institute is the only unit in Romania specialized in development and integration of scientific research, constructive and technological design, manufacturing, experimentation, testing, technological transfer and innovation in the field of aviation turbine engines, gas turbine industrial machines and high speed blade machines.

Continuous growth of quality allowed involvement in present days with scientific research, design, testing and small production in main research fields:

- 1. aviation turbine engines;
- 2. consume reduction, including new types of turbo engines fuel, cogeneration, unconventional forms of energy, improvement of energetic efficiency for natural gas compression systems, etc.;
- 3. environment protection, noise reduction in aircraft and industrial turbo engines, wasted waters treatment units, air ventilation systems for the biological stage of wasted water cleaning.

INCAS Bucharest - National Institute for Aerospace Research "Elie Carafoli" is the leading research establishment in aerospace sciences in Romania, with more than 60 years tradition in aerospace engineering, flow physics and applied aerodynamics, using stateof-theart technologies and unique infrastructure of national strategic importance. INCAS has been involved in all major national aeronautical projects for civil and military areas, and currently is acting as a major player in EU policy for R&D development under FlightPath 2050 vision and future Horizon 2020 program.





ROMAERO SA

Formerly Enterprise for the Repair of Aeronautical Material is a Romanian aircraft repair facility with some production capability for outside designs. Headquartered in Bucharest, it was founded by Royal Decree in 1920 as ASAM, and rebranded as IRMA after 1944. In 1978, the company changed its name to IAvB - Întreprinderea de Avioane București (Bucharest Enterprise Aircraft), rebranded as Romaero S.A., in 1991. Is an aerospace company that integrates two major activities: aerostructure manufacturing and maintenance and repair for civil and military transport aircraft.

MAGURELE – the research and development town

Măgurele is a town situated in the southwestern part of Ilfov County, Romania. Its population is 9,200. Four villages are administered by the town: Alunișu, Dumitrana, Pruni and Vârteju. Authorities want to transform the rural area with Magurele into a socioeconomic centre that will create development and innovation based on the Silicon Valley model. Will become in a few years the Laser Valley – Land of Light, the main Romanian innovation centre and a smart city that will centralize fundamental research, but also draw together start-ups from cutting edge technology.

The town hosts the "The Institute for Lasers", where the most powerful laser in the world is to be built – a system with two arms of 10 petawatts, equivalent to 10% of the Sun's power each. In addition, the platform includes a high-intensity gamma system, the two components allowing experiments that could not be conducted until now.

IAR Brasov and trip to Peles Castle

IAR (Romanian Aeronautic Industry) Brasov - is a Romanian aerospace manufacturer founded in 1925. Based in Ghimbav, near Braşov, the company employs around 1,200 specialists including more than 170 engineers. It carries out upgrades, revisions, and overhauls on helicopters and light aircraft.

Aerostar Bacau and trip to Vincon Panciu wine cellar

Our present mission considers three business lines, all in aeronautics and defence:



- Maintain the status of supplier in the field of aviation systems and ground defence systems for the Romanian Ministry of National Defence and for other beneficiaries, over 20% of the company turnover to be achieved from this field of activities.
- Consolidation of AEROSTAR'S position as a supplier of parts, aerostructures, subassemblies and equipment for the commercial aviation and for the general aviation, in order to become a major subcontractor for the global aviation industry, over 55% of the company turnover to be achieved from these activities.
- Consolidation of AEROSTAR activities as a leading supplier of civil aircraft maintenance and conversion/modernization of civil aircraft, over 20% of the company turnover to be achieved from this field of activities.



GENERAL INFORMATION

Bucharest is the capital and largest city of Romania, as well as its cultural, industrial, and financial center. Bucharest was first mentioned in documents in 1459. It became the capital of Romania in 1862 and is the centre of Romanian media, culture, and art.

Its architecture is a mix of historical (neo-classical), interbellum (Bauhaus and art deco), communist-era and modern. In the period between the two World Wars, the city's elegant architecture and the sophistication of its elite earned Bucharest the nickname of "Little Paris" (Micul Paris). Although buildings and districts in the historic city centre were heavily damaged or destroyed by war, earthquakes, and above all Nicolae Ceauşescu's program of systematization, many survived. In recent years, the city has been experiencing an economic and cultural boom. In 2016, the historical city centre was listed as "endangered" by the World Monuments Watch.

Hotel accommodation

Recommended hotels in the venue neighborhood (central Bucharest):

Parliament Hotel, ****

106, Izvor St., sector 5, 050564, Bucharest, Romania http://www.parliamenthotelbucharest.com/

Novotel Bucharest City Centre Hotel, ****

37B, Victoriei Way, sector 1, 010061, Bucharest, Romania http://www.mercibynovotel.ro/

IBIS Palatul Parlamentului City Centre Hotel, ***

82-84, Izvor St., sector 5, 050561, Bucurest http://www.ibishotels.ro/hotel-ibis-bucuresti-palatul-parlamentului

Europa Royale Bucharest Hotel, ****

60, Franceza St, sector 3, 030106, Bucharest, Romania http://europa-royale-bucharest.h-rzn.com

JW Marriott Bucharest Grand Hotel, ****

90, 13 Septembrie Way, sector 5, 050726, Bucharest, Romania http://www.grandhotel.ro



Dacia Hotel, ****

19, Matei Basarab St., Sector 3, Bucharest, Romania http://www.hoteldaciabucuresti.ro/

Marshall Garden Hotel*****

50B, Dorobantilor Way, Sector 1, 010574, Bucharest, Romania http://www.hotelmarshalgarden.ro

Sheraton Bucharest Hotel, *****

5-7 Calea Dorobanţilor, sector 1, 010551, Bucharest, Romania http://sheratonbucharest.com

Directions

From the "Henri Coanda" Otopeni International Airport

Taxi (recommended)

Can be ordered using the automated call system located in the Arrivals hall at the airport. Fee: around 35 lei (8 Euro).

Bus

Route 1: Express line 780 to the "Gara de Nord" Railway Station.

See subsequent directions below.

Route 2: Express line 783 to the city centre (Unirii Plaza).

Metro line M3 (direction "Preciziei") or line M1 (direction Gara de Nord – Dristor 2), to station "Izvor".

Buses schedule can be found here, but delays are frequent. Terminal are located in front of the Arrivals terminal (ground level). Bus fee: 3.5 lei (0.75 Euro). Metro fee: 5 lei (1 Euro) (two trips). Tickets available in the Airport bus station.

From the "Gara de Nord" Railway Station

Metro

Line M1 (direction "Anghel Saligny") to station "Izvor"

Fee: 5 lei (1 Euro) (two trips)



PARTNERS

























European Space Agency





SPONSORS





















EXHIBITORS









































AEROSTAR S.A. BACAU

Our present mission considers three business lines, all in aeronautics and defence:

• Maintain the status of supplier in the field of aviation systems and ground defence systems for the Romanian Ministry of National Defence and for other beneficiaries, over 20% of the company turnover to be achieved from this field of activities.

We will maintain the status of "House for integration, manufacturing, upgrade and maintenance."

- Consolidation of AEROSTAR'S position as a supplier of parts, aerostructures, sub-assemblies and equipment for the commercial aviation and for the general aviation, in order to become a major subcontractor for the global aviation industry, over 55% of the company turnover to be achieved from these activities.
- Consolidation of AEROSTAR activities as a leading supplier of civil aircraft maintenance and conversion/modernization of civil aircraft, over 20% of the company turnover to be achieved from this field of activities.

Aerostructures, Components, Assemblies Manufacturing

In the field of civil aviation AEROSTAR supplies aerostructures, components and assemblies for the global aviation industry as an EASA Part21G subcontractor and/or under the approval of the main contractor.

Landing Gears & Hydraulic Systems

Aerostar is the only Romanian producer of landing gears and hydraulic components for all types of aircraft made in Romania under licence or in accordance with our own development documentation.

In the field of aircraft landing gears and hydraulic systems, Aerostar is an approved supplier for SAFRAN Landing Systems of complete products, including full mechanical and hydraulic assembly and test. The company holds advanced capabilities for CNC machining, 3-4-5 axes on aluminium alloys, steel, stainless steel, bronze, titanium.

Among the main programmes performed are the TBM 700/850 landing gears, actuators for Airbus 320 and Airbus 330, kits of parts for A320, SuperPuma, F7X; SWP kits for Boeing 787, Airbus 330/340, Airbus 350; also, a range of actuators for the programme Dassault F7X.

MRO Commercial Aircraft



Aerostar is approved Part-145 for MRO Commercial Aircraft, being authorized for works on Boeing 737 aircraft series 200-900, Airbus 320 family and BAe 146 100-300 / AVRO RJ, as well as for components.

According to regulations, the certified types of activities are level A, B, C and D checks, structural modifications, avionics upgrades.

MRO & Upgrades, Military Aircraft

- L-39 jet trainer
- MiG-21 jet fighter, all versions
- Aeroengines: R-13-300, R-25-300, Saphire 5 turbostarter

Electronics, Production and Integrations of electronic, communication and IFF systems on ground, naval and airborne platforms

AEROSTAR has extensive capabilities for the production and integration of electronic, communications and IFF systems for airborne, ground and naval systems. The IFF equipment used are interrogators, transponders, antennas, key transporters, crypto-computers and command & control panels and consoles. The integrations are compatible MK XII A (Mode 1, Mode 2, Mode 3/A, Mode C, Mode 4, Mode S - for airborne platforms, with provisions for extension to Mode 5).

Ground Defence Systems

122mm Multiple Rocket Launchers, variants and configurations Integrated Artillery System

- Firing Subsystem
- Reconnaissance & Data Subsystem
- Command & Control
- Logistic Support Subsystem

Magic Engineering&Dassault Systems

Using the software CAD/CAM/CAE solutions developed by worldwide leaders Software Houses Dassault Systemes, MSC.Software and ESI Group, Magic Engineering, as Value Added Reseller or Agent in Romania, implements integrated complex systems of CAD/CAM/CAE engineering solutions, adapted to the specific requirements of research,



industrial and academic organizations, offering implementing, training and consultancy services.

Based on the know-how acquired during the various training session followed at software developers site, MAGIC ENGINEERING technician's team extended its experience more and more, by building constantly integrated solutions as an answer to the concrete problems of our customers in the conception, design, testing and / or manufacturing of a product;

Specialized consultancy in the field of design, freestyle surfaces construction, NC programs generation, product validation and optimization analysis, high-level technical support and various training sessions held (from beginner level through advanced till training on dedicated specific problems) are the characteristics of the complex implementation and integration projects piloted by MAGIC ENGINEERING with the direct supervising of our partners.

Dassault Systems

Dassault Systèmes, the 3DEXPERIENCE Company, provides businesses and people with virtual universes to imagine sustainable innovations. Its 3DEXPERIENCE Platform leverages the Company's world-leading 3D software applications to transform the way products are designed, produced, and supported, enabling businesses to craft delightful customer experiences.

With the 3DEXPERIENCE Platform, our customers create "social enterprises" that involve their customers in the innovation process. With its online architecture, the 3DEXPERIENCE environment helps businesses to test and evaluate — anywhere in the development lifecycle of a product or service — the eventual experience they will deliver to their customers. In short, 3DEXPERIENCE powers the next-generation capabilities that drive today's Experience Economy.

INCAS Bucharest - National Institute for Aerospace Research "Elie Carafoli"

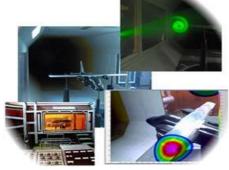
Is the leading research establishment in aerospace sciences in Romania, with more than 60 years tradition in aerospace engineering, flow physics and applied aerodynamics, using state-of-the-art technologies and unique infrastructure of national strategic importance.



INCAS has been involved in all major national aeronautical projects for civil and military areas, and currently is acting as a major player in EU policy for R&D development under FlightPath 2050 vision and future Horizon 2020 program.

INCAS is one of the contributors for the FlightPath 2050, an active participant to the new ACARE - Advisory Council for Aeronautical Research, has jointly developed the EREA - European Research Establishment in Aeronautics programmatic "Vision for the Future - Towards the Future Generation of Air Transport System", has initiated and signed as an institutional member the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers" and is one of the founder members of the IFAR - International Forum for Aviation Research. This is a solid basis for the foundation and implementation of the proposed Strategy and Development Plan for INCAS in the next decade.









Aeroteh SA

AEROTEH SA is a leading manufacturer of hydraulic and pneumatic equipment in Romania for the aviation industry and one of the manufacturers of hydraulic and pneumatic equipment with a high degree of complexity and uses in top industrial fields. It also



manufactures performant equipment for natural gasdistribution, measurement and control systems for domestic and industrial consumers.

AEROTEH SA was one of the first companies established after 1989, now with a privately owned Romanian capital, which ranks among the medium-sized companies in Romania.

Areas of activity:

- 1. Design, development, production / repair, assembly, service and marketing for:
- hydraulic and pneumatic equipment used in control and navigation systems of aircraft and aviation engines;
- complex equipment from natural gas distribution, transport, extraction, measuring and control systems;
- stands for testing and verification of equipment in the field of aviation and natural gas distribution.
- 2. Design and execution of natural gas distribution systems;
- 3. Design and execution, verification and inspection of natural gas installations.
- 4. Metrological verification for meters and volume converters for natural gas.

OPIAR - Association of Romanian Aeronautical Companies

Established in 1998, the Association of Romanian Aeronautical Companies is a not-for-profit, apolitical and non-governmental organisation, intended to support and to protect the interests of its member companies, facilitating direct contacts with Unions, State representatives, legislative and governmental bodies. The founder members are AEROSTAR SA Bacau, ROMAERO SA Bucharest, IAR SA Brasov, TURBOMECANICA SA Bucharest and GIAR SA Bucharest.

OPIAR represents the joint interests of its members, Romanian aeronautical and related companies and organisations. Its responsibilities include developing strategies for and promoting the image of the industry in the world market place.

OPIAR plays an active role in the elaboration of the aeronautical industry policy, intending to challenge the industry to work together in order to come up with strong and competitive positions.



OPIAR is actively working with its member companies to ensure that this tremendously important sector remains competitive in the new global economy, trying to develop close co-operation with similar industries around the world.

The Organisation is the voice of an industry with a turnover of about \$ 150 million and about 5000 employees. Its activities provide a framework through which the industry can increase its competitiveness and remain a significant player in the global aerospace market.

OPIAR focuses on:

- 2. Lobby activities for promoting the interests of Romania's Aeronautical Industry;
- 3. Management and support of the official participation of its members in major international aerospace fairs and exhibitions;
- 4. Identification of possible funding to sustain current and future programmes developed by the Romanian MoD;
- 5. Developing and promoting a specific commercial policy for its members on third markets;
- 6. Sustaining the integration process of the Romanian Aeronautical Industry into the global market structure.

AEROFINA SA

SC AEROFINA SA is a 100% private enterprise incorporate in Romanian Industry of Defense. Backed up by our experience (the setting up on 16 May 1980) in the field of avionics and turned towards future technological advances, S.C. AEROFINA S.A has dedicated most of its innovative efforts to the design, development, fabrication and testing of control systems, associated test equipment and ground support equipment. We have two main fields of activities:

1. DEFENCE

AEROFINA developed his profile for research - projecting programs, productions, test - evaluation, maintenance and support activities incorporate to customer for avionics, equipments, system of rescue and pyrotechnical device for military aero spatial, terrestrial the naval techniques.

2. INDUSTRIAL



AEROFINA developed his profile for research - projecting programs, productions, and test - evaluation, maintenance and support activities incorporate to customer for equipments and railway infrastructure.

The development of business involved following directions:

A. The research and development.

Involve the realization of project and technologies for new product, own conception, in the programs of research, or for assimilate products, after existing fashion, to application customers.

Production

SC AEROFINA SA is the main supplier of equipment for Romanian Military Air Force assuring, inclusively, maintenance after sale and for other clients like: ELBIT SYSTEMS - Israel; MEGGITT DEFENSE SYSTEMS Ltd - England; MATRA BAE SYSTEMS - France; BOMBARDIER Sweden.

In present day SC AEROFINA SA participate at the program of modernization of the advanced training aircraft IAR-99 SOIM and IAR-330 PUMA SOCAT helicopter.

B. Testing and evaluation

C. The check and assurance quality.

INAS SA

Company History

Founded 1991 with origins in the aviation industry, INAS maintains its position of major provider for high-end CAD/ CAM/CAE/PLM software solutions, training, technical support and consulting services.

What the company does

As the pioneer of numerical simulation within the Romanian industry, INAS became known as:

• Leading technical consulting centre providing prompt and quality engineering services (design and simulation) for a wide spectrum of industrial applications from automotive and heavy equipment to nuclear and defence.



• Centre of high technology transfer, providing our customers with an integrated system for design, manufacturing, verification and simulation, training and technical support for the best in-class CAD/CAM/CAE/PLM solutions.

Vision

INAS was founded on the belief that working together as a team with our customers, creating a win-win, highly profitable situation, are fundamental to a successful and long term working partnership. This is why we integrated in our system innovation and technical excellence as premises which allow INAS to provide high value-added solutions and services.

Products

CAD/CAM/CAE/PLM software:

•ANSYS: Structural Mechanics, Explicit Dynamics (including crash), CFD, Electromagnetics and Multiphysics •PTC: Creo (CAD/CAM software), Mathcad (mathematical calculation), •Windchill (PLM), Arbortext (technical illustrator) •Moldex3D (plastic injection) •Vericut (CNC simulation) •NCGCAM (CAM for HSM) •Magmasoft (casting simulation) •Bentley (infrastructure) •Genesis (optimization) •Total Materia (material database: metals, plastic, polymer, composite, etc).

ROSA – Romanian Space Agency

The Romanian Space Agency (ROSA) is the coordinator of Romania's national and international space activities. The Romanian Space Agency (ROSA) is a public institution entirely self-funded, operating under Government Decision no. 923/20.11.1995 and the subsequent decisions of the Ministry of Education and Research - National Authority for Scientific Research and Innovation (A.N.C.S.I.).

The mission of the Romanian Space Agency has four major components:

- to coordinate national space research and applications programs
- to promote space development in Romania
- to represent the Romanian Government in international space cooperation programmes
- to research space related issues at the ROSA Research Center



As a coordinator of national space research and applications programme, ROSA designs and coordinates the implementation of the National Space Programme. Following its objectives, the Agency is authorised to establish research and development centers.

As the representative of the Government, ROSA established cooperation agreements with international organisations such as the European Space Agency (ESA) or the Committee on Space Research (COSPAR), as well as bilateral cooperation agreements at governmental level. Together with the Ministry of External Affairs, ROSA represents Romania at the sessions of the United Nations Committee on the Peaceful Use of Outer Space — COPUOUS and its sub-committees.

ROSA is the coordinator organization of the Research, Development and Innovation STAR Programme - Space Technology and Advanced Research for the period 2012-2019, approved by Law no. 262/2011 - the tool which provides national support for implementing the Agreement between Romania and the European Space Agency (ESA) on Romania's accession to the ESA Convention.

At the same time, the Agency develops its own research and development projects through the ROSA Research Centre.

ROMATSA – Romanian Air Traffic Services Administration

ROMATSA was established by the Government Decision 74 / 1991, Amended and completed by the Government Decision 731 / 1992.

ROMATSA is holder of the statute of an autonomous administration, of national importance, self-financed, that is the achievement of its activity object and of the investment and development program is not based on financial support from the state budget .This administration is also holder of the natural monopoly on the air traffic services. In performing the air traffic services provided to the civil aircraft overflying the Romanian airspace, the Autonomous Administration ROMATSA applies the regulations of the EUROCONTROL (European Organization for the Safety of Air Navigation), which Romania joined in 1996.

The air traffic services are provided to the civil aircraft overflying the national airspace or landing at / taking off from the airports in Romania.

These provided services mean the terminal air traffic control, that is performed in the terminal and aerodrome control areas and the en-route air traffic control, performed by ACC.



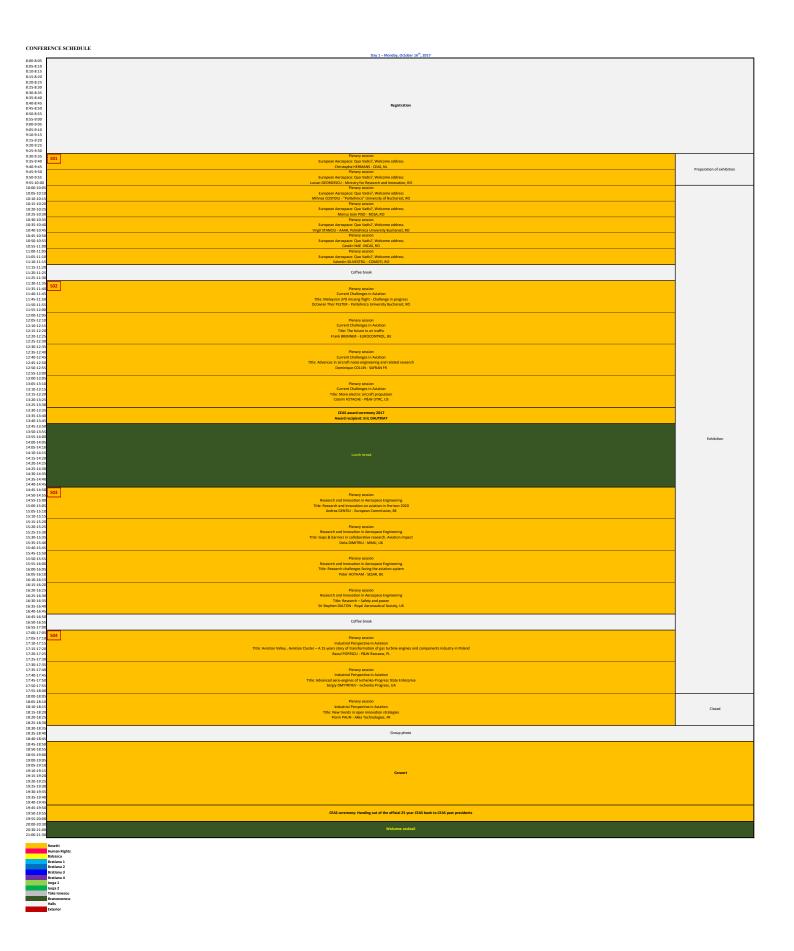
ROMATSA task is to create a safe operational environment for the air traffic in the Romanian airspace, on the background of the dynamical development of the civil aviation industry and of the permanent changes occurring in the international transport.

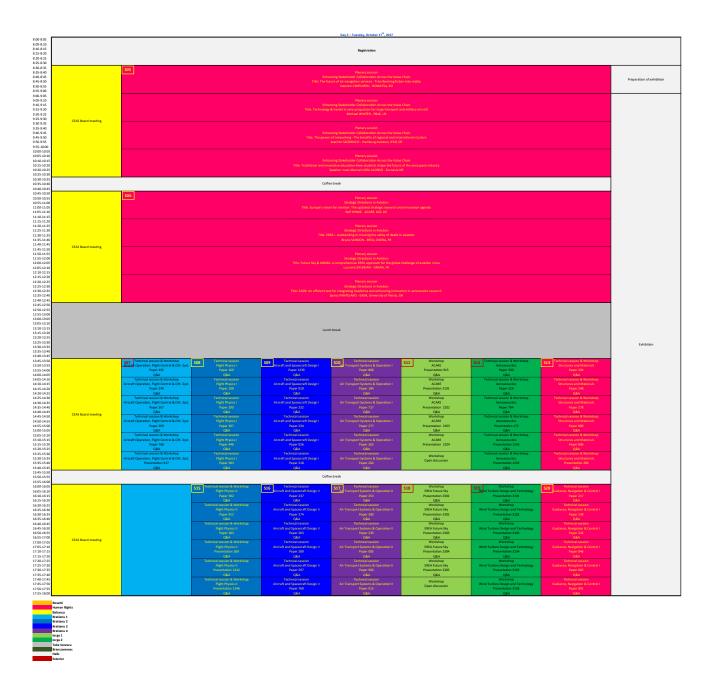
ROMATSA

- Manages the Romanian airspace allotted to the civil aviation• Provides the necessary technical facilities Provides air navigation services for the users of the Romanian airspace
- Organizes and provides the aeronautical and meteorological information
- Organizes and provides the aeronautical telecommunication services Achieves the civil military co-operation and the flexible use of the airspace.

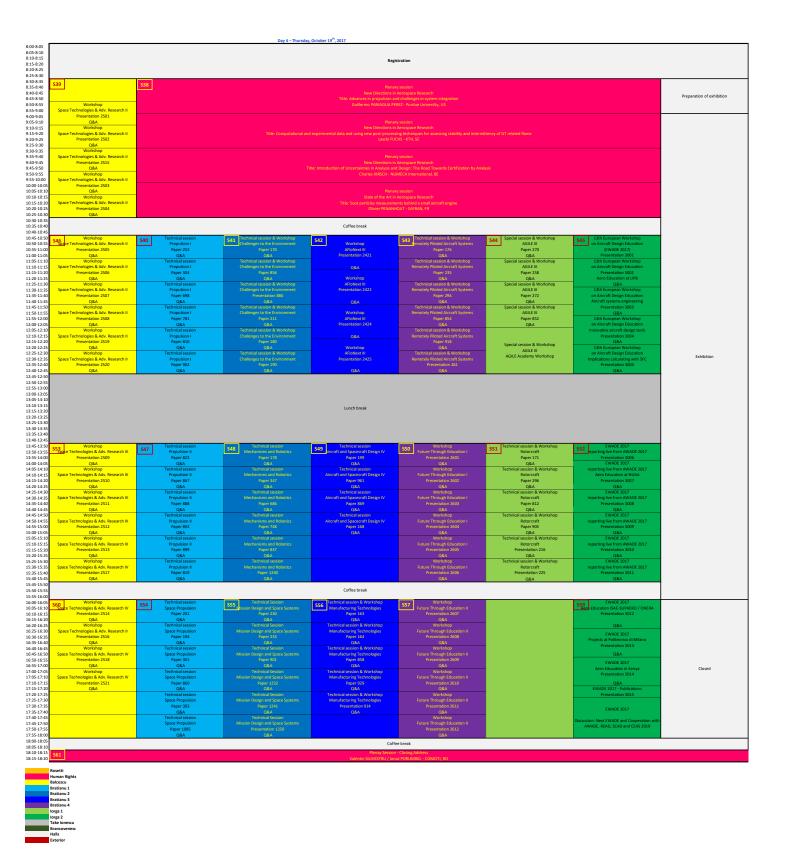
The activity of ROMATSA has to be performed facing the challenges

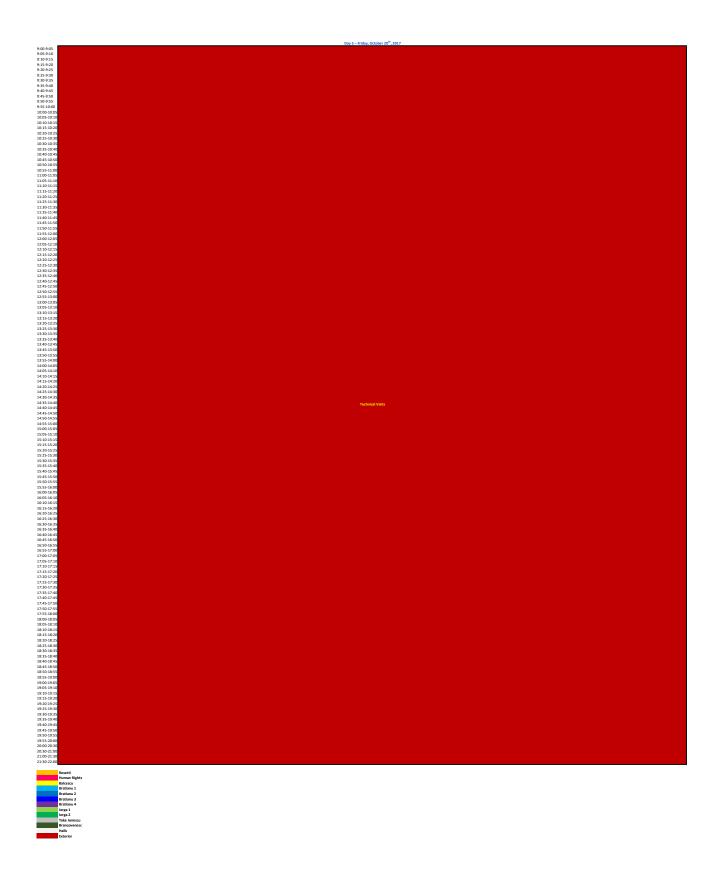
- Forecasted increase of the air traffic Necessity of maintaining the peak level of safety
- Cost reduction, and Compliance to the regulations concerning the environment protection.











CONFERENCE DETAILED PROGRAM

Time	ID	Title	Authors and affiliation	
Day 1: Monday	, Octobe	er 16 th , 2017		
08:00 - 18:00	8:00 - 18:00 Registration			
Session 1 (plena	ary). Eur	opean Aerospace: Quo Vadis?		
Rosetti Hall. Mo	derator	: George Bogdan Gherman (National Research and Development Inst	titute for Gas Turbines COMOTI, RO)	
09:30 - 09:45	1	Welcome address	<u>Christophe Hermans (CEAS, NL)</u>	
09:45 - 10:00	2	Welcome address	<u>Lucian Georgescu (Minister of Research and Innovation, RO)</u>	
10:00 - 10:15	3	Welcome address	Mihnea Costoiu (University "Politehnica" of Bucharest, RO)	
10:15 - 10:30	4	Welcome address	Marius Ioan Piso (Romanian Space Agency, RO)	
10:30 - 10:45	5	Welcome address	<u>Virgil Stanciu (AAAR, RO)</u>	
10:45 - 11:00	6	Welcome address	Catalin Nae (National Institute for Aerospace Research "Elie	
10.45 - 11.00	О	Welcome dualess	<u>Carafoli", RO)</u>	
11:00 - 11:15	7	Welcome address	<u>Valentin Silivestru (National Research and Development</u>	
11.00 - 11.15	/	welcome dudress	Institute for Gas Turbines COMOTI, RO)	
11:15 - 11:30	Coffee	break		
Session 2 (plena	ary). Cur	rent Challenges in Aviation		
Rosetti Hall. Mo	derator	: George Bogdan Gherman (National Research and Development Inst		
11:30 - 12:00	8	, 3,3 3 1 3	Octavian Thor Pleter (University "Politehnica" of Bucharest,	
			<u>RO)</u>	
12:00 - 12:30	9	The future in air traffic	<u>Frank Brenner (Eurocontrol, BE)</u>	
12:30 - 13:00	10	Advances in aircraft noise engineering and related research	<u>Domininque Collin (SAFRAN, FR)</u>	
13:00 - 13:30	11	More electric aircraft propulsion	Catalin Fotache (Pratt & Whitney, UTRC, US)	
CEAS Award Ce	•			
		Christophe Hermans (CEAS, NL)		
13:30 - 13:45		recipient: Eric Dautriat		
13:45 - 14:45	Lunch			
		ovenesc Hall		
	Session 3 (plenary). Research and Innovation in Aerospace Engineering			
		: George Bogdan Gherman (National Research and Development Ins		
14:45 - 15:15	12	Research and Innovation on Aviation in Horizon 2020	Andrea Gentili (European Commission, BE)	
15:15 - 15:45	13	Gaps & barriers in collaborative research. Aviation impact	Delia Dimitriu (Manchester Metropolitan Univsersity, UK)	
15:45 - 16:15	14	Research challenges facing the aviation system	Peter Hotham (SESAR, BE)	
16:15 - 16:45	15	Research – Safety and power	<u>Sir Stephen Dalton (Royal Aeronautical Society, UK)</u>	

16:45 - 17:00	Coffee break			
Session 4 (plena	ary). Ind	ustrial Perspective in Aviation		
Rosetti Hall. Mc	derator	: George Bogdan Gherman (National Research and Development Institu	ute for Gas Turbines COMOTI, RO)	
17:00 - 17:30	16	Aviation Valley , Aviation Cluster – A 15 years story of transformation of gas turbine engines and components industry in Poland	Raoul Popescu (Pratt & Whitney Rzeszow, PL)	
17:30 - 18:00	17	Advanced aero-engines of Ivchenko-Progress State Enterprise	Sergiy Dmytriyev (Ivchenko Progress, UA)	
18:00 - 18:30	18	New trends in open innovation strategies	Florin Paun (Akka Technologies, FR)	
18:30 - 18:45	Group	photo		
18:45 - 19:45	Concer Rosett			
CEAS Ceremony	1			
Rosetti Hall. Pre	esides: C	Christophe Hermans (CEAS, NL)		
19:45 - 20:00	Handir	ng out of the official 25 year CEAS book to CEAS past presidents		
20:00 - 21:30		me cocktail ovenesc Hall		
Day 2: Tuesday	, Octobe	er 17 th , 2017		
08:00 - 18:00	Registr	ration		
Session 5 (plena	ary). Enh	nancing Stakeholder Collaboration Across the Value Chain		
Human Rights H	lall. Mod	derator: George Bogdan Gherman (National Research and Developmen	t Institute for Gas Turbines COMOTI, RO)	
08:30 - 09:00	19	The future of air navigation services - Transforming fiction into reality	Valentin Cimpuieru (ROMATSA, RO)	
09:00 - 09:30	20	Technology & trends in sero-propulsion for large transport and military aircraft	Michael Winter (Pratt & Whitney, US)	
09:30 - 10:00	21	The power of networking - The benefits of regional and international clusters	Joachim Szodruch (Hamburg Aviation, IFAR, DE)	
10:00 - 10:30	22	Traditional and innovative education-How students shape the future of the aerospace industry	Juan Manuel Lora Alonso - Euroavia, NL)	
10:30 - 10:45	Coffee break			
Session 6 (plenary). Strategic Directions in Aviation				
Human Rights Hall. Moderator: George Bogdan Gherman (National Research and Development Institute for Gas Turbines COMOTI, RO)				
10:45 - 11:15	23	Europe's vision for aviation: The updated strategic research and innovation agenda	Rolf Henke (ACARE, DLR, DE)	
11:15 - 11:45	24	EREA – outstanding in crossing the valley of death in aviation	Bruno Sainjon (EREA, ONERA, FR)	
11:45 - 12:15	25	Future Sky & ANIMA: a comprehensive EREA approach for the global challenge of aviation noise	Laurent Leylekian (ONERA, FR)	

12:15 - 12:45	26	EASN: An efficient tool for integrating Academia and enhancing innovation in aeronautics research	Spiros Pantelakis (EASN, University of Patras, GR)		
12:45 - 13:45	Lunch Take Ionescu Hall				
Bratianu I Hall.	Session	sion and workshop). Aircraft Operation, Flight Control and Other Syster Chair: Petter Krus (Linkoping University, SE) 1 Vilag (National Research and Development Institute for Gas Turbines)			
13:45 - 14:05	192	An object-oriented approach to a scenario-based system dynamics fleet model	Gilbert Tay (Technical University Munich, DE), Raoul Rothfeld (Bauhaus Luftfahrt, DE), Mirko Hornung (Technical University Munich, DE)		
14:05 - 14:25	240	GPU based computational simulation of aircraft evacuation: Temporal and spatial analysis	Minesh Poudel (Durban University of Technology, ZA) Bhaskar Chaudhury (Dhirubhai Ambani Institute of Information and Communication Technology, IN), Kshitij Sharma (Dhirubhai Ambani Institute of Information and Communication Technology, IN), Pavel Yaroslavovich Tabakov (Durban University of Technology, ZA), Félix Mora- Camino (ENAC, FR)		
14:25 - 14:45	267	Comparison between numerical results and operative environment data on neural nnetwork for air data estimation	Angelo Lerro (AeroSmart, IT), Manuela Battipede (Politecnico di Torino, IT), Piero Gili (Politecnico di Torino, IT), Alberto Brandl (Politecnico di Torino, IT)		
14:45 - 15:05	209	Wind tunnel testing of the control system for a new morphing wing application with a full-scaled portion of a real wing	Michel Joël Tchatchueng Kammegne (École de Technologie Supérieure, CA), <u>Ruxandra Mihaela Botez</u> (École de <u>Technologie Supérieure, CA)</u> , Lucian Teodor Grigorie (École de Technologie Supérieure, CA), Mahmoud Mamou (Aerodynamics Laboratory, NRC, CA), Youssef Mebarki (Aerodynamics Laboratory, NRC, CA)		
15:05 - 15:25	768	Estimation of mission fuel savings potential using thermoelectric recuperation in aero-engines	Kai-Daniel F. Büchter (Bauhaus Luftfahrt, DE), Ulrich Kling (Bauhaus Luftfahrt, DE), Christoph Bode (Institute of Jet Propulsion and Turbomachinery, University of Braunschweig, DE), Jens Friedrichs (Institute of Jet Propulsion and Turbomachinery, University of Braunschweig, DE)		
15:25 - 15:45	917	A complex step derivative approach for optimal control using SIMULINK models	Johannes Diepolder (Technical University Munich, DE), Maximilian Söpper (Technical University Munich, DE), Benedikt Grüter (Technical University Munich, DE), Patrick		

			Piprek (Technical University Munich, DE), Florian Holzapfel
0 1 0 1			(Technical University Munich, DE)
•		sion). Flight Physics I	
		Chair: Mircea Boscoianu ("Henri Coanda" Air Force Academy, RO)	w 201
Host: Radu Mih	alache (National Research and Development Institute for Gas Turbines COMOT	I, RO)
13:45 - 14:05	160	Towards automation of aerial refuelling manoeuvres with the probeand drogue system: Modelling and simulation	Nicolas Fezans (DLR, DE), Thomas Jann (DLR, DE)
14:05 - 14:25	198	Analysis of aircraft rolling over potholes and ruts	José E. Gómez Viñas (Airbus Defence & Space, ES), José M. Chorro Martínez (Airbus Defence & Space, ES), Angel Martínez Pérez (Airbus Defence & Space, ES), Silvia Parra Adan (Airbus Defence & Space, ES)
14:25 - 14:45	290	The flow separation development analysis in subsonic and transonic flow regime for the laminar airfoil	Robert Placek (Institute of Aviation, PL), P. Ruchała (Institute of Aviation, PL)
14:45 - 15:05	307	Numerical calculation of 3D low speed delta wing fighters jet aircraft	Haci Sogukpinar (University of Adiyaman, TR)
15:05 - 15:25	446	Numerical calculation of wind tip vortex formation for different wingtip devices	Haci Sogukpinar (University of Adiyaman, TR)
15:25 - 15:45	583	Formation flight mechanics and its integrated logistics	Tomas Melin (Swedish Aeronautical Institute, SE), Diane Uyoga (Moi University, KE)
Session 9 (techr	nical ses	sion). Aircraft and Spacecraft Design I	
Bratianu III Hall	Session	n Chair: Dieter Scholz (Hamburg University, DE)	
Host: Radu Kuni	cser (Na	tional Research and Development Institute for Gas Turbines COMOTI, F	RO)
13:45 - 14:05	1239	Turboprop engine nacelle optimization for flight increased safety	Cristian Dorobăț (National Research and Development Institute for Gas Turbines COMOTI, RO), Gheorghe Moca (National Research and Development Institute for Gas
		and pollution reduction	Turbines COMOTI, RO), Elena Presură (National Research and Development Institute for Gas Turbines COMOTI, RO)
14:05 - 14:25	910	Improved concept of ventilation system for the crew quarters on board of the International Space Station	Florin Bode (Technical University of Civil Engineering in Bucharest, RO), <u>Ilinca Năstase (Technical University of Civil Engineering in Bucharest, RO)</u> , Matei-Răzvan Georgescu (Technical University of Civil Engineering in Bucharest, RO), Ioan Ursu (National Institute for Aerospace Research "Elie Carafoli", RO), Dragoș Guţă (National Institute for Aerospace Research "Elie Carafoli", RO)
14:25 - 14:45	232	A knowledge based engineering tool to support front-loading and multidisciplinary design optimization of the fin-rudder interface	Akshay Raju Kulkarni (Delft University of Technology, NL), Gianfranco La Rocca (Delft University of Technology, NL),

			Tobie van den Berg (Fokker Aerostructures, NL), Reinier van
			Dijk (ParaPy, NL)
14:45 - 15:05	234	Initial investigation of aerodynamic shape design optimisation for the Aegis UAV	Yousef Azabi (Cranfield University, UK), Al Savvaris (Cranfield University, UK), Timoleon Kipouros (Cranfield University, UK)
15:05 - 15:25	926	Definition and discussion of the intrinsic efficiency of winglets	Dieter Scholz (Hamburg University of Applied Sciences, DE)
15:25 - 15:45	218	Numerical analysis of propeller effects on wing aerodynamic: tip mounted and distributed propulsion	Pierluigi Della Vecchia (University of Naples "Federico II", IT), D. Malgieri (University of Naples "Federico II", IT), Fabrizio Nicolosi (University of Naples "Federico II", IT), Agostino De Marco (University of Naples "Federico II", IT)
Session 10 (tech	nnical se	ession). Air Transport Systems and Operation I	
Bratianu IV Hall	. Sessio	n Chair: Richard Curran (Delft University of Technology, NL)	
		nal Research and Development Institute for Gas Turbines COMOTI, RO)	
13:45 - 14:05	868	Twin-jet and trijet aircraft: a study for an optimal design of regional aircraft	Edgar Coelho Inouye (EMBRAER, BR), Adson Agrico de Paula (Instituto Tecnológico de Aeronáutica, BR), Patrice London Guedes (EMBRAER, BR), William Martins Alves (EMBRAER, BR)
14:05 - 14:25	184	Aircraft ground operations: steps towards automation	<u>Diego Alonso Tabares (Airbus SAS, FR)</u> , Felix Mora-Camino (ENAC, FR)
14:25 - 14:45	717	Optimization of noise abatement aircraft terminal routes using a multiobjective evolutionary algorithm based on decomposition	Vinh Ho-Huu (Delft University of Technology, NL), Sander Hartjes (Delft University of Technology, NL), Liset H. Geijselaers (Delft University of Technology, NL), Dries H. G. Visser (Delft University of Technology, NL), Richard Curran (Delft University of Technology, NL)
14:45 - 15:05	277	Integrating maintenance work progress monitoring into aircraft maintenance planning decision support	Pieter Callewaert (Delft University of Technology, NL), <u>Wim J.C. Verhagen (Delft University of Technology, NL)</u> , Richard Curran (Delft University of Technology, NL),
15:05 - 15:25	263	Development of an end to end maintenance evaluation strategy for new technologies in the context of IVHM	Hendrik Meyer (DLR, DE), Nicolas Bontikous (M2P Consulting, DE), Alexander Plagemann (Airbus, DE)
15:25 - 15:45	264	Cost efficiency model for civil transport aviation referring to operations	Mario Antonio Solazzo (CIRA, IT), Lidia Travascio (CIRA, IT), Angela Vozella (CIRA, IT)

Session 11 (workshop). ACARE

lorga I Hall. Session Chair: Naresh Kumar (Rolls Royce, UK)

Host: Mihai Sima (National Research and Development Institute for Gas Turbines COMOTI, RO)

13:45 - 14:05	915	ACARE's work on Environment and Energy	<u>Valérie Guénon (Safran, FR)</u> , Keith Nurney (Rolls Royce, UK), Thomas Thomas (IATA, CH)
14:05 - 14:25	2101	ACARE's work on Mobility	Marc Bourgois (Eurocontrol), Chris Schneider (Airport Munich, DE), David Bowen (SESAR JU), Helge Pfeiffer (KU
14.25 14.45	2102	ACART/a want on Commentitiveness	Leuven, BE)
14:25 - 14:45	2102	ACARE's work on Competitiveness	Neil Harris (Airbus, FR), Sylvie Regnier (Airbus, FR)
14:45 - 15:05	2103	ACARE's work on Safety and Security	<u>John Hird (Eurocontrol)</u> , Barry Kirwan (Eurocontrol), Emmanuel Isambert (EASA), Sylvie Grand-Perret (Eurocontrol)
15:05 - 15:25	2104	ACARE's work on Resources (Research priorities, Test infrastructure & education	Horst Hüners (DLR, DE), Joris Melkert (TU Delft, NL), Askin Isikveren (Safran, FR)
15:25 - 15:45	Open o	discussion	, , , , <u>-</u>
		ession and workshop). Aeroacoustics	
		air: Denis Gely (ONERA, FR)	
		tional Research and Development Institute for Gas Turbines COMOTI, I	RO)
Host. Drugos W	Timar (rea	tional nescarch and Bevelopment institute for das raisines como in, i	Constantin Sandu (National Research and Development
13:45 - 14:05	200	Passenger spaceplanes and airplanes that have variable configuration for sonic boom reduction	Institute for Gas Turbines COMOTI, RO), Dan Brasoveanu (Systems Engineering Group, US), Valentin Silivestru (National Research and Development Institute for Gas Turbines COMOTI, RO), Bogdan Filipescu (Teletrans, RO), Radu Constantin Sandu (Structural Management Solutions,
			RO)
14:05 - 14:25	224	Applying of Six-Sigma methodology for noise reduction of complex aerospace assemblies	Constantin Sandu (National Research and Development Institute for Gas Turbines COMOTI, RO), Dan Brasoveanu (Systems Engineering Group, US), Valentin Silivestru (National Research and Development Institute for Gas Turbines COMOTI, RO), Bogdan Filipescu (Teletrans, RO), Radu Constantin Sandu (Structural Management Solutions, RO)
14:25 - 14:45	794	Control of cavity acoustics by surface waviness in landing configurations	Abderrahmane Belkallouche (Université Saad Dahlab-Blida, DZ), Tahar Rezoug (Université Saad Dahlab-Blida, DZ), Laurent Dala (Northumbria University, UK)
14:45 - 15:05	172	Numerical investigation of the interaction between a rectangular supersonic jet and a parallel flat plate	Romain Gojon (Royal Institute of Technology KTH, SE), <u>Mihai</u> <u>Mihaescu (Royal Institute of Technology KTH, SE)</u> , Ephraim Gutmark (University of Cincinnati, US)

15:05 - 15:25	1243	On the extension of the Lighthill's eighth power law of aeroacoustics to sheared and swirling flows	Luis Braga Campos (Technical University of Lisbon, PT)
15:25 - 15:45	1245	On atmospheric and ground effects on airport noise	Luis Braga Campos (Technical University of Lisbon, PT), P.G.T.A. Serrao (Technical University of Lisbon, PT)
Human Rights H	Hall. Ses s	ession and workshop). Structures and Materials sion Chair: Rafael Bureo Dacal (ESA, ES) (National Research and Development Institute for Gas Turbines COMO)	TI. RO)
13:45 - 14:05	204	Resistance of composite laminates to the initiation and propagation of delamination under low velocity impact	Yigeng Xu (Cranfield University, UK), Zeng Shen (University of Hertfordshire, UK), William Tiu (BAE Systems, UK), Yizhong Xu (Arctic University of Norway, NO), Amit Ramji (Cranfield University, UK), Marzio Grasso (University of Hertfordshire, UK)
14:05 - 14:25	248	Configuration design of smart structures with array antennas	Minsung Kim (Agency for Defense Development, KR), Sangmin Baek (Agency for Defense Development, KR), Myunggyun Ko (Agency for Defense Development, KR), Jongwoo Seo (Agency for Defense Development, KR), Youngsik Joo (Agency for Defense Development, KR)
14:25 - 14:45	278	Threshold identification and damage characterization of GF/CF composites under low-velocity impact	Amit Ramji (Cranfield University, UK), Yigeng Xu (Cranfield University, UK), Marzio Grasso (University of Hertfordshire, UK), James Watson (Cranfield University, UK), George Haritos (University of Hertfordshire, UK)
14:45 - 15:05	889	Thermal shock, tribological and mechanical properties of micro and nano structured zirconia partially stabilized with Yttria and Ceria	Alina Dragomirescu (National Institute for Aerospace Research "Elie Carafoli", RO), Mihail Botan (National Institute for Aerospace Research "Elie Carafoli", RO), Victor Manoliu (National Institute for Aerospace Research "Elie Carafoli", RO), Gheorghe Ionescu (National Institute for Aerospace Research "Elie Carafoli", RO), Adriana Stefan (National Institute for Aerospace Research "Elie Carafoli", RO), Alexandru Mihailescu (National Institute for Aerospace Research "Elie Carafoli", RO)
15:05 - 15:25	896	The effects of heat treatments on homogenization of CMSX-4 single crystal Ni-based superalloy	Alexandru Paraschiv (National Research and Development Institute for Gas Turbines COMOTI, RO), Gheorghe Matache (National Research and Development Institute for Gas Turbines COMOTI, RO), Cristian Puscasu (National Research and Development Institute for Gas Turbines COMOTI, RO)

15:25 - 15:45	286	New aviation structure prototype with a magnetorheological elastomer	Pawel Skalski (Institute of Aviation, PL)	
15:45 - 16:00	Coffee	break		
•		ession and workshop). Flight Physics II		
		Chair: Luis Braga Campos (Technical University of Lisbon, PT)		
Host: Radu Mih	alache (National Research and Development Institute for Gas Turbines COMOT		
			Andrei Buzica (Technical University of Munich, DE), Manuel	
16:00 - 16:20	592	Detached Eddy-Simulations of Delta-Wing Post-Stall flow control	Biswanger (Technical University of Munich, DE), Christian	
			Breitsamter (Technical University of Munich, DE)	
			Andrea Da Ronch (University of Southampton, UK), Marco	
16:20 - 16:40	912	Data-driven optimisation of closure coefficients of a turbulence	Panzeri (Noesis Solutions, BE), <u>Jernej Drofelnik (University</u>	
20.20 20.10	5	model	of Southampton, UK), Roberto d'Ippolito (Noesis Solutions,	
			BE)	
			Constantin Sandu (National Research and Development	
			Institute for Gas Turbines COMOTI, RO), Dan Brasoveanu	
10.10.17.00	100	Solar-gravitational spacecarft used for traveling in the solar system	(Systems Engineering Group, US), Valentin Silivestru	
16:40 - 17:00	183		(National Research and Development Institute for Gas	
			Turbines COMOTI, RO), Bogdan Filipescu (Teletrans, RO),	
			Radu Constantin Sandu (Structural Management Solutions, RO)	
		Aerodynamic design of a tailored skin single duct suction system for	(NO)	
17:00 - 17:20	269	HLFC fin application	Arne Seitz (DLR, DE), Matthias Horn (DLR, DE)	
		On wake vortex separation distances: theory compared with regulations	Luis Braga Campos (Technical University of Lisbon, PT),	
17:20 - 17:40	1242		J.M.G. Marques (Universidade Lusofona de Humanidades e	
			Tecnologias, PT)	
17:40 - 18:00	1246	Tailless Supersonic Aircraft Configuration – Case Study for Future	Catalin Nae (National Institute for Aerospace Research "Elie	
		High Speed Aircrafts	<u>Carafoli", RO)</u>	
Session 16 (technical session). Aircraft and Spacecraft Design II				
Bratianu III Hall. Session Chair: Fabrizio Nicolosi (University of Naples "Federico II", IT)				
Host: Radu Kuncser (National Research and Development Institute for Gas Turbines COMOTI, RO)				
16:00 - 16:20	227	Preliminary design of advanced flight control system architectures for commercial transport aircraft	Thomas Lampl (Technical University of Munich, DE), Timo	
	237		Wolf (Technical University of Munich, DE), Mirko Hornung	
		·	(Technical University of Munich, DE)	
16:20 - 16:40	274	Aircraft optimization at the early stages of design with a hybrid	Nesrin Cavus (DLR, DE)	
		technique		

16:40 - 17:00	283	An investigation into all electric and hybrid aircraft	Gareth England (Imperial College London, UK), Errikos Levis (Imperial College London, UK)
17:00 - 17:20	289	Morphological design and analysis of aircraft wings	Jakub Drzewoszewski (Brunel University, UK), <u>Cristinel</u> Mares (Brunel University, UK)
17:20 - 17:40	297	The studies on low-noise laminar wing aircraft for regional and short range routes	Anatoly L. Bolsunovsky (TsAGI, RU), Nikolay N.Bragin (TsAGI, RU), Nikolay P.Buzoverya (TsAGI, RU), Ivan L. Chernyshev (TsAGI, RU)
17:40 - 18:00	760	Development of a methodology for assessing and exploiting innovative aircraft concepts and technologies	Yaolong Liu (Technical University of Braunschweig, DE), Peter Horst (Technical University of Braunschweig, DE), Jens Friedrichs (Technical University of Braunschweig, DE)
Session 17 (tech	nnical se	ssion). Air Transport Systems and Operations II	
		n Chair: Octavian Thor Pleter (University "Politehnica" of Bucharest, I	RO)
		nal Research and Development Institute for Gas Turbines COMOTI, RO)	·
16:00 - 16:20	253	Development of a software tool for comprehensive flight performance and mission analysis of hybrid-electric aircraft	Gilbert Tay (Technical University of Munich, DE), Paul Keller (Technical University of Munich, DE), Mirko Hornung (Technical University of Munich, DE)
16:20 - 16:40	280	Identification of optimal preventive maintenance decisions for composite components	Paul Laks (Technical University of Hamburg, DE), Wim J.C. Verhagen (Delft University of Technology, NL), Richard Curran (Delft University of Technology, NL)
16:40 - 17:00	239	Reference trajectory optimization using the particle swarm optimization	Alejandro Murrieta-Mendoza (Ecole de Technologie Superieure, CA) Hugo Ruiz (Ecole de Technologie Superieure, CA), Sonya Kessaci (Ecole de Technologie Superieure, CA), <u>Ruxandra Mihaela Botez (Ecole de</u> Technologie Superieure, CA)
17:00 - 17:20	85	Validation of the SmartBasing aircraft rotation and retirement strategy	Jeffrey M. Newcamp (Delft University of Technology, NL), Wim J.C. Verhagen (Delft University of Technology, NL), Richard Curran (Delft University of Technology, NL)
17:20 - 17:40	900	Assessment of electric taxiing considering aircraft utilization and maintenance cost	<u>Ulrich Kling (Bauhaus Luftfahrt, DE)</u> , Clemens Steger (Bauhaus Luftfahrt, DE), Fabian N. Peter (Bauhaus Luftfahrt, DE), Michael Schmidt (Bauhaus Luftfahrt, DE)
17:40 - 18:00	913	A review of recent personal air vehicle concepts	Michael Shamiyeh (Bauhaus Luftfahrt, DE), Julian Bijewitz (Bauhaus Luftfahrt, DE), Mirko Hornung (Bauhaus Luftfahrt, DE)
Session 18 (workshop). EREA Future Sky lorga Hall. Session Chair: Josef Kaspar (VZLU, CZ)			

lorga I Hall. Session Chair: Josef Kaspar (VZLU, CZ)

Host: Mihai Sim	a (Natio	onal Research and Development Institute for Gas Turbines COMOTI, RO)
16:00 - 16:20	2301	FUTURE SKY - Aviation Research for Tomorrow and Beyond	Josef Kaspar (VZLU, CZ)
16:20 - 16:40	2302	EREA RTDI Capabilities and Infrastructure. Meeting the flightpath challenge on Environment and Energy. The Future Sky Energy Initiative	Marcello Kivel Mazuy (CIRA, IT)
16:40 - 17:00	2303	TBA	Laurent LEYLEKIAN (ONERA, FR)
17:00 - 17:20	2304	TBA	TBA
17:20 - 17:40	2305	TBA	TBA
17:40 - 18:00	Open d	liscussion	
Session 19 (wor	kshop).	Wind Turbine Design and Techology	
lorga II Hall. Ses	sion Ch	air: Ion Mălăel (National Research and Development Institute for Gas 1	Turbines COMOTI, RO)
Host: Dragos M	lihai (Na	tional Research and Development Institute for Gas Turbines COMOTI, F	RO)
16:00 - 16:20	3101	NRDI COMOTI wind turbine technology know-how transfer	<u>Ion Malael (National Research and Development Institute</u> for Gas Turbines COMOTI, RO)
16:20 - 16:40	3102	CFD methods for wind turbine	Bogdan George Gherman (National Research and Development Institute for Gas Turbines COMOTI, RO)
16:40 - 17:00	3103	FEM simulation	Mihail Sima - (National Research and Development Institute for Gas Turbines COMOTI, RO),
17:00 - 17:20	3104	Turbulence effects on the wind turbine efficiency	Horia Dumitrescu (ISMMA, RO)
17:20 - 17:40	3105	Wind turbine flow control	Florin Frunzulica (University "Politehnica" of Bucharest, RO)
17:40 - 18:00	3106	Hybrid renewable energy system based on vertical axis wind turbine with integrated photovoltaic panels and magnetic suspension	Alexandru Dumitrache (ISMMA, RO)
Session 20 (tech	nnical se	ssion). Guidance, Navigation and Control I	
•		sion Chair: Adrian Stoica (University "Politehnica" of Bucharest, RO)	
Host: Sebastian	Vintila (National Research and Development Institute for Gas Turbines COMO	ΓΙ, RO)
16:00 - 16:20	217	A study on the micro gravity sloshing modeling of propellant quantity variation	Dong-yeon Lee (Korea Advanced Institute of Science and Technology, KR), Min-hyun Cho (Korea Advanced Institute of Science and Technology, KR), Han-lim Choi (Korea Advanced Institute of Science and Technology, KR), Min-jea Tahk (Korea Advanced Institute of Science and Technology, KR)
16:20 - 16:40	238	Angular momentum analysis of spacecraft with control moment gyros	Hyunjae Leeghim (Chosun University, KR)
16:40 - 17:00	243	Bezier-curve navigation guidance for impact time and angle control	Gun-Hee Moon (Korea Advanced Institute of Science and Technology, KR), Sang-Wook Shim (Korea Advanced

			Institute of Science and Technology, KR), Min-Jea Tahk (Korea Advanced Institute of Science and Technology, KR)
17:00 - 17:20	846	Pitch stabilization with tailored canard compliance	Petter Krus (Linköping University, SE), Birgitta Lantto (Saab, SE)
17:20 - 17:40	883	Synthesizing a massive training dataset based on real lunar data for image-based navigation and crater recognition	Hoonhee Lee (Korea Advanced Institute of Science and Technology, KR), Dawoon Jung (Korea Advanced Institute of Science and Technology, KR), Seunghee Son (Korea Advanced Institute of Science and Technology, KR), Han-Lim Choi (Korea Advanced Institute of Science and Technology, KR)
17:40 - 18:00	891	Near optimal explicit guidance law with impact angle constraints for a hypersonic reentry vehicle	Karthikeyan Kalirajan (Indian Institute of Technology, IN), Ashok Joshi (Indian Institute of Technology, IN)
Day 3: Wedneso 08:00 - 16:00	day, Oct Registr		
Session 21 (pler		ne Future of Space Exploration	
		derator: George Bogdan Gherman (National Research and Developmen	
08:30 - 09:00	34	How to become a supplier of Airbus Defence and Space ?	Serge Flamenbaum (Airbus Defence and Space, FR)
09:00 - 09:30	27	Space science in Romania	Sorin Zgura (Institute of Space Sciences, RO)
09:30 - 10:00	28	Ground testing strategy for high-speed reentry application	Olivier Chazot (Von Karman Institute for Fluid Dynamics, BE)
10:00 - 10:30	29	Overview of the New Member States industrial incentive scheme	Stephen Airey (ESA, FR)
10:30 - 10:45	Coffee		
•		Guidance, Navigation and Control II	
		hair: Cristian Corneliu Chițu (GMV Romania, RO)	
Host: Oana Dun	nitrescu	(National Research and Development Institute for Gas Turbines COMC	• •
10:45 - 11:05	1247	Detect & Avoid	Boubekeur Begue, (Akka Technologies, FR), Nicolas Capdeville (Akka Technologies, FR), Jean-François Lamaudiere (Akka Technologies, FR), Nicolas Senequier (Akka Technologies, FR)
11:05 - 11:25	1248	Advances in VIS and TIR data fusion techniques for GNC and FDIR algorithms	<u>Cristian Corneliu Chitu (GMV Romania, RO)</u> , Claudiu-Lucian Prioroc (GMV Romania, RO)
11:25 - 11:45	1249	GPS integrity analysis - Operational Benefits for aviation	Florin Mistrapau (GMV Romania, RO)
11:45 - 12:05	1251	Advances in visual based management approach and landing scenarios	Cristian Corneliu Chitu (GMV Romania, RO)
Session 23 (technical session and workshop). Aerothermodynamics and Thermal Science			
Bratianu I Hall. Session chair: Mihai Mihaescu (Royal Institute of Technology KTH, SE)			

Host: Valeriu Alexandru Vilag (National Research and Development Institute for Gas Turbines COMOTI, RO)				
10:45 - 11:05	273	The impact of flow features on formation of surface carbonaceous deposits under aero engine representative conditions	Ehsan Alborzi (Sheffield University, UK), Simon Blakey (Sheffield University, UK), P. Gadsby (Sheffield University, UK)	
11:05 - 11:25	302	Subsonic jet pump low noise optimization	George Bogdan Gherman (National Research and Development Institute for Gas Turbines COMOTI, RO), Florin Gabriel Florean (National Research and Development Institute for Gas Turbines COMOTI, RO), Ionut Porumbel (National Research and Development Institute for Gas Turbines COMOTI, RO)	
11:25 - 11:45	942	Investigation of the flow around an aircraft wing of section NACA 2412 utilising ANSYS Fluent	Rob Ives (Teesside University, UK), Andrew Stewart Keir (Teesside University, UK), F A Hamad (Teesside University, UK)	
11:45 - 12:05	943	CFD analysis of C-D Nozzle compared with theoretical & experimental data	Andrew Stewart Keir (Teesside University, UK), Rob Ives (Teesside University, UK), F A Hamad (Teesside University, UK)	
12:05 - 12:25	1244	On the extrapolation of stability derivatives to combined angles of attack and sideslip	Luis Braga Campos (Technical University of Lisbon, PT), J. M. G. Marques (Universidade Lusofona de Humanidades e Tecnologias, PT)	
12:25 - 12:45	848	Losses and blade tip clearance for a centrifugal compressor	Oana Dumitrescu (National Research and Development Institute for Gas Turbines COMOTI, RO), Ramona Stanciuc (National Research and Development Institute for Gas Turbines COMOTI, RO), George Bogdan Gherman (National Research and Development Institute for Gas Turbines COMOTI, RO), Valeriu Drăgan (Royal Institute of Technology KTH, SE)	
· ·		ession and workshop). Education and Historical Perspective		
	Bratianu II Hall. Session chair: Constantin Rotaru ("Henri Coanda" Air Force Academy, RO) Host: Radu Mihalache (National Research and Development Institute for Gas Turbines COMOTI, RO)			
10:45 - 11:05	279	A pedagogical approach based on problem-based learning on aeronautical engineering post-graduation at InstitutoTecnológico de Aeronáutica (ITA)	Adson Agrico de Paula (Instituto Tecnológico de Aeronáutica, BR), Roberto Gil Annes da Silva (Instituto Tecnológico de Aeronáutica, BR)	
11:05 - 11:25	801	Proposal for a EU quality label for aerospace education	Franco Bernelli-Zazzera (Politecnico di Milano, IT), Maria Angeles Martin Prats (Universidad de Sevilla, ES), Francesco Marulo (Università degli Studi di Napoli "Federico II", IT),	

			Daniel Hanus (Czech Technical University, CZ), Joris Melkert (Delft University of Technology, NL), Giorgio Guglieri (Politecnico di Torino, IT), Pascal Bauer (ISAE-ENSMA, FR), Irene Pantelaki (EASN TIS, GR), Iring Wasser (ASIIN, DE), Herman Deconinck (von Karman Institute for Fluid Dynamics, BE), Ruxandra Bosilca (National Institute for Aerospace Research "Elie Carafoli", RO), Hanna-Kaisa Saari (Aerospace Valley, FR)
11:25 - 11:45	815	On the theoretical and experimental activities performed by Professor Hermann Oberth in Romania	Nicolae Florin Zăgănescu (IAA, RO), <u>Constantin Marcian</u> <u>Gheorghe (RO)</u>
11:45 - 12:05	816	On the contributions of Dr. Irene Sänger-Bredt in the field of astronautics	<u>Constantin Marcian Gheorghe (RO)</u> , Nicolae Florin Zăgănescu (IAA, RO)
12:05 - 12:25	936	The impact of Fab labs on aeronautical engineering education at Instituto Tecnológico de Aeronáutica (ITA)	Adson Agrico de Paula (Instituto Tecnológico de Aeronáutica, BR), Roberto Gil Annes da Silva (Instituto Tecnológico de Aeronáutica, BR), Vitor Gabriel Kleine (Instituto Tecnológico de Aeronáutica, BR), Bruno Ricardo Massucatto Padilha (Instituto Tecnológico de Aeronáutica, BR)
Bratianu III Hall	l. Sessior	ession). Safety and Security n chair: Eric Deletombe (ONERA, FR) ntional Research and Development Institute for Gas Turbines COMOTI, I	RO)
10:45 - 11:05	205	Onboard functional requirements for specific category UAS and safe operation monitoring	Christoph Torens (DLR, DE), Florian Nikodem (DLR, DE), Johann C. Dauer (DLR, DE), Joerg S. Dittrich (DLR, DE)
11:05 - 11:25	231	Passengers' rescuing in case of imminent disaster of large airplanes	Constantin Sandu (National Research and Development Institute for Gas Turbines COMOTI, RO), Dan Brasoveanu (Systems Engineering Group, US), Valentin Silivestru (National Research and Development Institute for Gas Turbines COMOTI, RO), Bogdan Filipescu (Teletrans, RO), Radu Constantin Sandu (Structural Management Solutions, RO)
11:25 - 11:45	249	Credibility of 21st century numerical simulations in A/C crash and impact analysis	Eric Deletombe (ONERA, FR), M. Mahé (Airbus Aircraft, FR)
11:45 - 12:05	265	Model-based fault identification of fighter aircraft's environmental control system	Leo Mäkelä (Tampere University of Technology, FI), Jussi Aaltonen (Tampere University of Technology, FI), Kari T.

			Koskinen (Tampere University of Technology, FI), Kari Mäentausta (Finnish Defence Forces Logistics Command, FI)
			Claudiu Teodorescu (Deimos Space, RO), Ana-Maria
12:05 - 12:25	979	Improved NEO data processing capabilities for the ESA SSA-NEO	Teodorescu (Deimos Space, RO), Detlef Koschny (ESA /
		software system	ESTEC, NL)
12:25 - 12:45	1238	Aviation regulations of Russia: A transition from one type to another	Oleksiy Chernykh (Nanjing University of Aeronautics and
		· · · · · · · · · · · · · · · · · · ·	Astronautics, CN), Mambet Bakiiev (Antonov Company, UA)
•		ession). Aeroelasticity and Structural Dynamics I	
		n chair: Cornelia Hillenherms (DLR, DE)	
Host: Ion Malae	el (Natio	nal Research and Development Institute for Gas Turbines COMOTI, RO,	
			Mercedes Oliver Herrero (Airbus Defence and Space, ES),
10:45 - 11:05	960	Aircraft normal modesFriend or Foe? An Airbus answer	Félix Arévalo Lozano (Airbus Defence and Space, ES), Héctor
			Climent Máñez (Airbus Defence and Space, ES)
11:05 - 11:25	292	Investigation of viscosity influence on transonic flutter	Svetlana Kuzmina (TsAGI, RU), Fanil Ishmuratov (TsAGI, RU),
		·	A. Chizhov (TsAGI, RU), Oleg Karas (TsAGI, RU)
11:25 - 11:45	688	Flutter uncertainty analysis of an aircraft wing subjected to a thrust	M. Rezaei (Shiraz University, IR), <u>S. Ahmad Fazelzadeh</u>
		force using Fuzzy method	(Shiraz University, IR), A. Mazidi (Yazd University, IR)
		System and method for flight envelope expansion via piezoelectric	Ioan Ursu (National Institute for Aerospace Research "Elie
			Carafoli", RO), Dragos Daniel Ion Guta (National Institute for
			Aerospace Research "Elie Carafoli", RO), George Tecuceanu
			(National Institute for Aerospace Research "Elie Carafoli",
11.45 12.05			RO), Alexandru-Gabriel Persinaru (National Institute for
11:45 - 12:05	747	actuation	Aerospace Research "Elie Carafoli", RO), <u>Daniela Enciu</u> (National Institute for Aerospace Research "Elie Carafoli",
			RO), Ionel Popescu (Institute for Theoretical and
			Experimental Analysis of Aeronautical - Astronautics
			Structures, RO), Cornel Stoica (National Institute for
			Aerospace Research "Elie Carafoli", RO)
		Experimental investigations on aerodynamic response of panel	
12:05 - 12:25	903	structures at high subsonic and low supersonic Mach numbers	Jannis Lübker (DLR, DE), Marko Alder (DLR, DE)
		Different fidelity computational models in aeroelastic design of	Vasily V. Chedrik (TsAGI, RU), Fanil Z. Ishmuratov (TsAGI,
12:25 - 12:45	923	aircraft and WT models	RU)
Session 27 Isna	cial cocc	ion and workshop) AGII F I	, ·

Session 27 (special session and workshop). AGILE I

lorga I Hall. Session chair: Pier Davide Ciampa (DLR, DE)

Host: Mihai Sima (National Research and Development Institute for Gas Turbines COMOTI, RO)

10:45 - 11:05	876	AGILE Aircraft Development Process	Pier Davide Ciampa (DLR, DE), Björn Nagel (DLR, DE)
11:05 - 11:25	844	Methods supporting the efficient collaborative design of future aircraft	Erik Baalbergen (Netherlands Aerospace Centre, NL), Erwin Moerland (DLR, DE) Wim Lammen (Netherlands Aerospace Centre, NL), Pier Davide Ciampa (DLR, DE)
11:25 - 11:45	173	Graph-based algorithms and data-driven documents for formulation and visualization of large MDO systems	Benedikt Aigner (RWTH Aachen University, DE), Imco van Gent (Delft University of Technology, NL), Gianfranco La Rocca (Delft University of Technology, NL), Eike Stumpf (RWTH Aachen University, DE), Leo L.M. Veldhuis (Delft University of Technology, NL)
11:45 - 12:05	245	The effect of sub-systems design parameters on preliminary aircraft design in a multidisciplinary design environment	Marco Fioriti (Politecnico di Torino, IT), Luca Boggero (Politecnico di Torino, IT), Sabrina Corpino (Politecnico di Torino, IT), Prajwal Shiva Prakasha (DLR, DE), Pier Davide Ciampa (DLR, DE), Björn Nagel (DLR, DE)
12:05 - 12:25	254	An improved method for transport aircraft for high lift aerodynamic prediction	Pierluigi Della Vecchia (University of Naples "Federico II", IT), Fabrizio Nicolosi (University of Naples "Federico II", IT), Manuela Ruocco (University of Naples "Federico II", IT), Luca Stingo (University of Naples "Federico II", IT), Agostino De Marco (University of Naples "Federico II", IT)
12:25 - 12:45	957	Robust optimization of a rudder hinge system taking into account uncertainty in airframe parameters	Ton van der Laan (GKN Fokker Aerostructures, NL), Luc Hootsmans (GKN Fokker Aerostructures, NL), Marco Panzeri (Noesis Solutions, BE), Roberto d'Ippolito (NOESIS Solutions, BE)
Session 28 (spe	cial sess	ion and workshop). Constant Volume Combustion	
_		air: Guillermo Paniagua Perez (Purdue University, US)	
Host: Dragos M	ihai (Na	tional Research and Development Institute for Gas Turbines COMOTI, F	· ·
10:45 - 11:05	219	Valveless Pulsed Detonation Chamber controlled by Hartmann oscillators	Tudor Cuciuc (Institute for Applied Physics, MD), Constantin Eusebiu Hritcu (National Research and Development Institute for Gas Turbines COMOTI, RO), Gabriel George Ursescu (National Research and Development Institute for Gas Turbines COMOTI, RO), Ionut Porumbel (National Research and Development Institute for Gas Turbines COMOTI, RO), Cleopatra Florentina Cuciumita (National Research and Development Institute for Gas Turbines COMOTI, RO)

11:05 - 11:25	221	Numerical simulation of detonation in a valveless Pulsed Detonation Chamber	Ionut Porumbel (National Research and Development Institute for Gas Turbines COMOTI, RO), George Bogdan Gherman (National Research and Development Institute for Gas Turbines COMOTI, RO), Ion Malael (National Research and Development Institute for Gas Turbines COMOTI, RO), Valeriu Dragan (Royal Institute of Technology KTH, SE)
11:25 - 11:45	222	Experimental Measurements in Hartmann oscillators	Institute for Gas Turbines COMOTI, RO), Cleopatra Florentina Cuciumita (National Research and Development Institute for Gas Turbines COMOTI, RO), Cristian Nechifor (National Research and Development Institute for Gas Turbines COMOTI, RO), Radu Kuncser (National Research and Development Institute for Gas Turbines COMOTI, RO), Radu Kuncser (National Research and Development Institute for Gas Turbines COMOTI, RO), Tudor Cuciuc (Institute for Applied Physics, MD)
11:45 - 12:05	226	The effects of multiple detonation waves in the RDE flow field	Bayindir H. Saracoglu (von Karman Institute for Fluid Dynamics, BE), Aysu Ozden (von Karman Institute for Fluid Dynamics, BE)
12:05 - 12:25	924	A preliminary heat transfer analysis of Pulse Detonation Engines	Berke Olcucuoglu (von Karman Institute for Fluid Dynamics, BE), <u>Bayindir H. Saracoglu (von Karman Institute for Fluid Dynamics, BE)</u>
12:25 - 12:45	890	Flow path simulations of a novel pulse detonation engine using detached eddy simulations	<u>Johan Revstedt (Lund University, SE)</u> , Weiwei Li (Lund University, SE)
Session 29 (wo	rkshop).	AFloNext I	
Human Rights H	Hall. Ses s	sion chair: Jochen Wild (DLR, DE)	
Host: Sebastian	Vintila ((National Research and Development Institute for Gas Turbines COMO	TI, RO)
10:45 - 11:15	2401	Overview on the integrated design and testing of flow control at the engine / pylon junction and outer wing	Phillip Schloesser (Airbus Defence and Space, DE)
11:15 - 11:45	2402	Design of active flow control at the wing / pylon / engine junction	Ales Prachar (Czech Aerospace Research Centre VZLU, CZ)
11:45 - 12:15	2403	Active flow separation control at the outer wing	Jean Pierre Rosenblum (Dassault Aviation, FR)
12:15 - 12:45	2404	Design of a pulsed jet actuator for separation control	Phillip Schloesser (Airbus Defence and Space, DE)
12:45 - 13:45		onescu Hall	
		ssion). Satellite Communications	
Bratianu I Hall. Session chair: Pierre Bescond (AAAF, FR)			
Host: Valeriu Alexandru Vilag (National Research and Development Institute for Gas Turbines COMOTI, RO)			

186	External wireless system for ultimate flight control in contingency situations	Filip Niculescu (National Research and Development Institute for Gas Turbines COMOTI, RO), Andrei Mitru (National Research and Development Institute for Gas Turbines COMOTI, RO), Constantin Sandu (National Research and Development Institute for Gas Turbines COMOTI, RO), Constantin Vilcu (National Research and Development Institute for Gas Turbines COMOTI, RO)
737	The relative motion of a spacecraft near a geostationary position	Roxana Alexandra Petre (University "Politehnica" of Bucharest, RO), Ion Stroe (University "Politehnica" of Bucharest, RO), Andrei Craifaleanu (University "Politehnica" of Bucharest, RO), Thien Van Nguyen (University "Politehnica" of Bucharest, RO)
767	Scaling of airborne ad-hoc network metrics with link range and satellite connectivity	<u>Kai-Daniel F. Büchter (Bauhaus Luftfahrt, DE)</u> , Oleg Milshtein (Bauhaus Luftfahrt, DE)
832	Application of Hamilton principle in the control of tethered satellite system pendular motion	Paul Tirop (Beijing Institute of Technology, CN), Jingrui Zhang (Beijing Institute of Technology, CN)
966	Concurrent engineering and fast-mapping/crowd-mapping using IoT, Big Data and Cloud Computing	George Suciu (BEIA Consult International, RO), Adrian Pasat (BEIA Consult International, RO), Laurentiu Bezdedeanu (BEIA Consult International, RO), Iulian Iordache (INCDIE ICPE-CA, RO), Gabriela Iosif (INCDIE ICPE-CA, RO), Emil Costea (National Institute for Aerospace Research "Elie Carafoli", RO)
kshop).	Innovation in Aero-Engines	
	· · · · · · · · · · · · · · · · · · ·	r, no.
aiacne (i	National Research and Development Institute for Gas Turbines COMOT	
2701	Combining data science and physical simulations: New Data-Driven methods for aerospace engineering	Richard Ahlfeld (Imperial College London and UQuant Ltd, UK), F. Montomoli (Imperial College London and UQuant Ltd, UK)
2702	Explicit parametric solutions for Stokes flow and saddle-point problems with PGD	<u>Pedro Díez (Universitat Politècnica de Catalunya, ES)</u> , S. Zlotnik (Universitat Politècnica de Catalunya, ES), A. Huerta (Universitat Politècnica de Catalunya, ES)
2703	A numerical method for the analysis of component interaction in aero-engines	<u>Simone Salvadori (University of Florence, IT)</u> , Massimiliano Insinna (University of Florence, IT)
2704	Multi-physics modeling of detonation engines	Bayindir H. Saracoglu (von Karman Institute for Fluid Dynamics, BE)
	737 767 832 966 kshop). Session alache (2701 2702 2703	The relative motion of a spacecraft near a geostationary position Scaling of airborne ad-hoc network metrics with link range and satellite connectivity Application of Hamilton principle in the control of tethered satellite system pendular motion Concurrent engineering and fast-mapping/crowd-mapping using loT, Big Data and Cloud Computing Concurrent engineering and fast-mapping/crowd-mapping using loT, Big Data and Cloud Computing Computing Computing data and Cloud Computing Combining data science and physical simulations: New Data-Driven methods for aerospace engineering Explicit parametric solutions for Stokes flow and saddle-point problems with PGD A numerical method for the analysis of component interaction in aero-engines

15:05 - 15:25	2705	Perspectives on tools for configurational design	Björn Nagel (DLR, DE)
15:25 – 15:45	2706	Multiscale virtual structural testing. Towards simulation-based design and certification of aircraft structures	Cláudio S. Lopes (IMDEA Materials Institute, ES)
Session 33 (tech	nnical se	ssion). Aircraft and Spacecraft Design III	
Bratianu III Hall	. Sessior	n chair: Marco Fioriti (Polytechnic of Torino, IT)	
Host: Radu Kun	cser (Na	tional Research and Development Institute for Gas Turbines COMOTI, F	RO)
13:45 - 14:05	214	A Java toolchain of programs for aircraft design	Agostino De Marco (University of Naples "Federico II", IT), Vincenzo Cusati (University of Naples "Federico II", IT), Vittorio Trifari (University of Naples "Federico II", IT), Manuela Ruocco (University of Naples "Federico II", IT),
			Fabrizio Nicolosi (University of Naples "Federico II", IT), Pierluigi Della Vecchia (University of Naples "Federico II", IT)
14:05 - 14:25	847	Preliminary investigation on the impact of missile design on its aerodynamic features	Mahmoud M. Abdel-Fattah (Military Technical College, EG), Ahmed E. Hassan (Military Technical College, EG), Mahmoud Y. M. Ahmed (Military Technical College, EG)
14:25 - 14:45	850	Conceptual design of a stratospheric hybrid platform for Earth observation and telecommunications	Vincenzo Rosario Baraniello (CIRA, IT), Giuseppe Persechino (CIRA, IT)
14:45 - 15:05	813	Preliminary weight sizing of light pure-electric and hybrid-electric aircraft	Carlo E.D. Riboldi (Politecnico di Milano, IT), Federico Gualdoni (Politecnico di Milano, IT), <u>Lorenzo Trainelli</u> (Politecnico di Milano, IT)
15:05 - 15:25	920	Progress of subscale winged rocket development and Its application to future fully reusable space transportation system	Koichi Yonemoto (Kyushu Institute of Technology, JP), Takahiro Fujikawa (Kyushu Institute of Technology, JP), Toshiki Morito (Japan Aerospace Exploration Agency, JP), Joseph Wang (University of Southern California, US), Ahsan R. Choudhuri (University of Texas at El Paso, US)
15:25 - 15:45	893	Design and aerodynamic analysis of a regional turboprop innovative configuration	Fabrizio Nicolosi (University of Naples "Federico II", IT), Salvatore Corcione (University of Naples "Federico II", IT), Pierluigi Della Vecchia (University of Naples "Federico II", IT), Vittorio Trifari (University of Naples "Federico II", IT), Manuela Ruocco (University of Naples "Federico II", IT), Agostino De Marco (University of Naples "Federico II", IT)

Session 34 (technical session and workshop). Aeroelasticity and Structural Dynamics II

Bratianu IV Hall. Session chair: Mercedes Oliver Herrero (Airbus Military, ES)

Host: Ion Malael (National Research and Development Institute for Gas Turbines COMOTI, RO)

13:45 - 14:05	916	Discrete gust response of a box-wing configuration	Rauno Cavallaro (University Carlos III of Madrid, ES), Juan Palacios Santos (University Carlos III of Madrid, ES), Rocco Bombardieri (University Carlos III of Madrid, ES)
14:05 - 14:25	838	Time-domain aeroelastic model for compound helicopter propeller- wing configuration	Zi Wang (University of Nottingham, UK), Alessandro Anobile (University of Nottingham, UK), Atanas A. Popov (University of Nottingham, UK)
14:25 - 14:45	862	Gust alleviation of aeroelastic aircraft using CFD simulation	Aleš Prachař (VZLU, CZ), Pavel Hospodář (VZLU, CZ), Petr Vrchota (VZLU, CZ)
14:45 - 15:05	215	Effects of MR damper on flutter of a wing / store configuration	Abbas Mazidi (Yazd University, IR), Hamid Pourshamsi (Yazd University, IR), Seyed Ahmad Fazelzadeh (Shiraz University, IR)
15:05 - 15:25	906	Unified flight-dynamic and aeroelastic analysis of a PrandtlPlane configuration	Rocco Bombardieri (University Carlos III of Madrid, ES), Francesco Auricchio (University Federico II of Naples, IT), Rauno Cavallaro (University Carlos III of Madrid, ES)
15:25 - 15:45	907	Introduction to performance envelopes and its application	Sriharsha Sheshanarayana (Queen's University Belfast, UK), Cecil Armstrong (Queen's University Belfast, UK), Trevor Robinson (Queen's University Belfast, UK), Adrian Murphy (Queen's University Belfast, UK)
Session 35 (spe		ion). AGILE II iir: Thierry Lefebvre (ONERA, FR)	
		onal Research and Development Institute for Gas Turbines COMOTI, RO)
13:45 - 14:05	956	Overview of MDO enhancement in the AGILE project: A clustered and surrogate-based MDA use case	Thierry Lefebvre (ONERA, FR), Nathalie Bartoli (ONERA, FR), Sylvain Dubreuil (ONERA, FR), Riccardo Lombardi (NOESIS Solutions, BE), Wim Lammen (NLR, NL), Mengmeng Zhang (AIRINNOVA, SE), Imco van Gent (Delft University of Technology, NL), Pier Davide Ciampa (DLR, DE)
14:05 - 14:25	898	Collaborative design of aircraft systems - Multi-Level Optimization of an aircraft rudder	Wim Lammen (NLR, NL), Bert de Wit (NLR, NL), Jos Vankan (NLR, NL), Huub Timmermans (NLR, NL), Ton van der Laan (GKN Fokker Aerostructures, NL), Pier Davide Ciampa (DLR, DE)
14:25 - 14:45	969	CMDOWS: A proposed new standard to store and exchange MDO systems	Imco van Gent (Delft University of Technology, NL), Gianfranco La Rocca (Delft University of Technology, NL), Maurice F. M. Hoogreef (Delft University of Technology, NL)
14:45 - 15:05	851	MDO architectures comparison on analytical test case and aerostructural aircraft system design problem	Francesco Torrigiani (DLR, DE), Pier Davide Ciampa (DLR, DE)

953	Disciplinary data fusion for multi-fidelity aerodynamic application	Mengmeng Zhang (Airinnova, SE), Aidan Jungo (CFS Engineering, CH), Nathalie Bartoli (ONERA, FR)
271	Uncertainty quantification and robust design optimization applied to aircraft propulsion systems	Marco Panzeri (Noesis Solutions, BE), Andrey Savelyev (TsAGI, RU), Kirill Anisimov (TsAGI, RU), Roberto d'Ippolito (Noesis Solutions, BE), Artur Mirzoyan (CIAM, RU)
rkshop).	Research infrastructures	
ssion cha	air: Francesco Ferrigno (CIRA, IT)	
lihai (Na	tional Research and Development Institute for Gas Turbines COMOTI, I	R <i>O)</i>
2201	RINGO Project: Research Infrastructures needs, gap and overlaps	Francesco Ferrigno (CIRA, IT)
2202	Experimental, Modeling and Numerical Aerospace research activities at the Von Karman Institute	Olivier Chazot (VKI, BE)
2203	The Purdue Experimental Turbine Aerothermal Laboratory	Guillermo Paniagua Perez (Purdue University, US)
2204	Research infrastructure in COMOTI: Present and perspectives	Ionut Porumbel (National Research and Development Institute for Gas Turbines COMOTI, RO)
2205	CIRA Aeronautics Research Infrastructures: main assets and future trends	Francesco Ferrigno (CIRA, IT)
Open c	discussion	
rkshop).	AFloNext II	
Hall. Sess	sion chair: Jean Pierre Rosenblum (Dassault Aviation, FR)	
		TI, RO)
2405	Design of a synthetic jet actuator for separation control	Perez Weigel (Fraunhofer Institute for Electronic Nano Systems, DE), Martin Schüller (Fraunhofer Institute for Electronic Nano Systems, DE), André Gratias (Fraunhofer Institute for Electronic Nano Systems, DE), Theo ter Meer (Netherlands Aerospace Centre, NL), Michiel Bardet (Netherlands Aerospace Centre, NL)
2406	Testing of active flow control actuators at harsh environment	Ionuţ Brinza (National Institute for Aerospace Research "Elie Carafoli", RO), Perez Weigel (Fraunhofer Institute for Electronic Nano Systems, DE), Phillip Schloesser (Airbus Defence and Space, DE)
2408	Sub-scale wind tunnel testing of active flow control at the outer wing	<u>Avi Seifert</u>
2407	Full-scale wind-tunnel test of active flow control at the wing / pylon / engine junction	<u>Vitaly Soudakov (TsAGI, RU)</u>
2409	Assessment of active flow separation control technology on full aircraft level	<u>S. Rolston</u>
1	271 rkshop). ssion char lihai (Na 2201 2202 2203 2204 2205 Open of rkshop). Hall. Sess Vintila 2405 2406 2408 2407	Uncertainty quantification and robust design optimization applied to aircraft propulsion systems Ekshop). Research infrastructures Ission chair: Francesco Ferrigno (CIRA, IT) Ishai (National Research and Development Institute for Gas Turbines COMOTI, I 2201 RINGO Project: Research Infrastructures needs, gap and overlaps Experimental, Modeling and Numerical Aerospace research activities at the Von Karman Institute 2203 The Purdue Experimental Turbine Aerothermal Laboratory 2204 Research infrastructure in COMOTI: Present and perspectives 2205 CIRA Aeronautics Research Infrastructures: main assets and future trends Open discussion Teshop). AFIONEXT II Hall. Session chair: Jean Pierre Rosenblum (Dassault Aviation, FR) Vintila (National Research and Development Institute for Gas Turbines COMO 2405 Design of a synthetic jet actuator for separation control 2406 Testing of active flow control actuators at harsh environment 2408 Sub-scale wind tunnel testing of active flow control at the outer wing / engine junction 2409 Assessment of active flow separation control technology on full

15:45 - 16:00	Coffee	Coffee break		
16:00 - 17:00	Transp	Transportation to Mogosoaia Castle		
17:00 - 18:00	Visit of	Visit of Mogosoaia Castle		
18:00 - 21:00	Confer	ence dinner at Mogosoaia Castle		
21:00 - 22:00	Return	to city centre		
Day 4: Thursday	y, Octob	per 19 th , 2017		
08:00 - 16:00	Registr	ration		
Session 38 (pler	nary). Ne	ew Directions in Aerospace Research		
	Iall. Mod	derator: George Bogdan Gherman (National Research and Developmen	•	
08:30 - 09:00	30	Advances in propulsion and challenges in system integration	Guillermo Paniagua Perez (Purdue UniversIty, US)	
09:00 - 09:30	31	Computational and experimental data and using new post- processing techniques for assessing stability and intermittency of GT related flame	Laszlo Fuchs (Royal Institute of Technology KTH, SE)	
09:30 - 10:00	32	Introduction of uncertainties in analysis and design: The road towards certification by analysis	Charles Hirsch (NUMECA International, BE)	
10:00 - 10:30	33	Soot particles measurements behind a small aircraft engine	Olivier Penanhoat (SAFRAN, FR)	
Session 39 (wor	kshop).	Space Technologies and Advanced Research I		
Balcescu Hall. S	ession c	hair: Rafael Bureo Dacal (ESA, ES)		
Host: Oana Dur	nitrescu	(National Research and Development Institute for Gas Turbines COMO	TI, RO)	
08:50 - 09:10	2501	Siemens CVC – Space Activities under the Incentive Schema - Earth Observation	Raluca Botez (Siemens Convergence Creators, RO)	
09:10 - 09:30	2502	Siemens CVC – Space Activities under the Incentive Schema - Mission Control System	Raluca Botez (Siemens Convergence Creators, RO)	
09:30 - 09:50	2515	User identity federation for access to EO space resources	Raluca Botez (Siemens Convergence Creators, RO)	
09:50 - 10:10	2503	Electric motors adaptation for space application	Mircea Modreanu (ICPE, RO), <u>Ioana Ionică (ICPE, RO)</u> , Cristian Boboc (ICPE, RO)	
10:10 - 10:30	2504	Development of a new reaction wheel using up-to-date technologies	Bogdan Varaticeanu (ICPE, RO)	
10:30 - 10:45	Coffee	break		
Session 40 (technical session). Propulsion I				
Bratianu I Hall. Session chair: Eberhard Nicke (DLR, DE)				
Host: Valeriu Al	Host: Valeriu Alexandru Vilag (National Research and Development Institute for Gas Turbines COMOTI, RO)			
10:45 - 11:05	252	The influence of the vaned diffuser on the turbo machinery	Gheorghe Fetea (National Research and Development Institute for Gas Turbines COMOTI, RO), Oana Dumitrescu (National Research and Development Institute for Gas Turbines COMOTI, RO), George Bogdan Gherman (National	

			Research and Development Institute for Gas Turbines
			COMOTI, RO), Dan Robescu (University "Politehnica" of
			Bucharest, RO)
			Cleopatra Florentina Cuciumita (National Research and
			<u>Development Institute for Gas Turbines COMOTI, RO)</u> , Daniel Olaru (National Research and Development Institute
11.05 11.25	304	Experimental studies on injection nozzle flame stability for gas	,
11:05 - 11:25	304	turbines using in-situ combustion applications	for Gas Turbines COMOTI, RO), Marius Enache (National
			Research and Development Institute for Gas Turbines
			COMOTI, RO), Florin Gabriel Florean (National Research and
			Development Institute for Gas Turbines COMOTI, RO)
			Anwer E. A. Hashish (Military Technical College, EG),
11:25 - 11:45	698	Hybrid optimization of star grain performance prediction tool	Mahmoud Y.M. Ahmed (Military Technical College, EG),
			Hamed M. Abdallah (Military Technical College, EG),
		Developation at the contract of the contract o	Mohamed A. Alsenbawy (Military Technical College, EG)
11:45 - 12:05	781	Parametric study on taper-ended internal-burning solid propellant grains	Mahmoud Y. M. Ahmed (Military Technical College, EG)
		granis	Marius Enache (National Research and Development
			Institute for Gas Turbines COMOTI, RO), Andreea Cristina
	810	10 The design of an annular combustion chamber	Mangra (National Research and Development Institute for
12:05 - 12:25			Gas Turbines COMOTI, RO), Razvan Carlanescu (National
12.05 12.25	010	The design of an annual combastion chamber	Research and Development Institute for Gas Turbines
			COMOTI, RO), Florin Gabriel Florean (National Research and
			Development Institute for Gas Turbines COMOTI, RO)
12.25 12.15		Sizing considerations of an electric ducted fan for hybrid energy	Patrick C. Vratny (Bauhaus Luftfahrt, DE), Mirko Hornung
12:25 - 12:45	902	aircraft	(Bauhaus Luftfahrt, DE)
Session 41 (tech	nnical se	ssion and workshop). Challenges to the Environment	
Bratianu II Hall.	Session	chair: Delia Dimitriu (Manchester Metropolitan University, UK)	
Host: Radu Mihalache (National Research and Development Institute for Gas Turbines COMOTI, RO)			
		0 More electrical non-propulsive architectures integration	Nawal Jaljal (SAFRAN, FR), Jean-Philippe Salanne (SAFRAN,
10:45 - 11:05	170		FR), René Meunier (SAFRAN, FR), Bruno Thoraval (SAFRAN,
			FR), Clélia Level (SAFRAN, FR)
11:05 - 11:25	856	Detecting future potentials for step-change innovation in	Lily Koops (Bauhaus Luftfahrt, DE), Andreas Sizmann
11.03 - 11.25	630	aeronautics – Progress and challenges	(Bauhaus Luftfahrt, DE)

11:25 - 11:45	886	Adaptive Environmental Control System	Giusi Quartarone (United Technologies Research Center, IE), Raymond Foley (United Technologies Research Center, IE)
11:45 - 12:05	211	Solar-gravitational system for deorbiting space debris and reentry in Earth's atmosphere and accelerating active satelites for orbit reestablishement	Constantin Sandu (National Research and Development Institute for Gas Turbines COMOTI, RO), Dan Brasoveanu (Systems Engineering Group, US), Valentin Silivestru (National Research and Development Institute for Gas Turbines COMOTI, RO), Bogdan Filipescu (Teletrans, RO), Radu Constantin Sandu (Structural Management Solutions, RO)
12:05 - 12:25	180	A thermal-solar system for de-orbiting of space debris	Constantin Sandu (National Research and Development Institute for Gas Turbines COMOTI, RO), Dan Brasoveanu (Systems Engineering Group, US), Valentin Silivestru (National Research and Development Institute for Gas Turbines COMOTI, RO), Bogdan Filipescu (Teletrans, RO), Radu Constantin Sandu (Structural Management Solutions, RO)
12:25 - 12:45	190	Space technology for reduction of desert areas on Earth and weather control	Constantin Sandu (National Research and Development Institute for Gas Turbines COMOTI, RO), Dan Brasoveanu (Systems Engineering Group, US), Valentin Silivestru (National Research and Development Institute for Gas Turbines COMOTI, RO), Bogdan Filipescu (Teletrans, RO), Radu Constantin Sandu (Structural Management Solutions, RO)
Session 42 (wor			
		n chair: Martin Wahlich (Airbus, DE) tional Research and Development Institute for Gas Turbines COMOTI, I	RO)
10:45 - 11:15	2421	A CFD benchmark of active flow control for buffet prevention	Fulvio Sartor (ONERA, FR), Mauro Minervino CIRA, IT), Jochen Wild (DLR, DE), Stefan Wallin (Royal Institute of Technology KTH, SE), Hans Maseland (NLR - Netherlands Aerospace Centre, NL), Julien Dandois (ONERA, FR), Vitaly Soudakov (TsAGI, RU), Petr Vrchota (VZLU - Aeronautical Research and Test Institute, CZ)
11:15 - 11:45	2422	Design optimization of fluidic gurneys as a mean of buffet control	<u>Vitaly Soudakov (TsAGI, RU)</u>

11:45 - 12:15	2424	Wind tunnel tests of fluidic gurneys by suction and oscillitary blowing	Avi Seifert
11.43 12.13	2727	actuators	<u>TWI SCHEIL</u>
12:15 - 12:45	2425	Evaluation of active flow control for buffet prevention on aircraft level	<u>S. Rolston</u>
Session 43 (tecl	hnical se	ssion and workshop). Remotely Piloted Aircraft Systems	
Bratianu IV Hall	l. Sessio	n chair: Marc Bourgois (Eurocontrol, BE)	
Host: Ion Malae	el (Natio	nal Research and Development Institute for Gas Turbines COMOTI, RO	
10:45 - 11:05	176	Application of a visualization environment for the mission performance evaluation of civilian UAS	Ekaterina Fokina (Technical University of Munich, DE), Jens Feger (Technical University of Munich, DE), Mirko Hornung (Technical University of Munich, DE)
11:05 - 11:25	235	Convexification in energy optimization of a hybride propulsion system for unmanned aerial vehicles	Ye Xie (Cranfield University, UK), Al Savvaris (Cranfield University, UK), Antonios Tsourdos (Cranfield University, UK)
11:25 - 11:45	294	Flight test design for remotely-piloted aircraft in confined airspace	Alejandro Sobron (Linköping University, SE), David Lundström (Linköping University, SE), Petter Krus (Linköping University, SE), Christopher Jouannet (SAAB Aeronautics, SE), Luiz C.S. Góes (Instituto Tecnológico de Aeronáutica, BR)
11:45 - 12:05	854	Enhanced kinematics calculation for an online trajectory generation module	Patrick Piprek (Technical University of Munich, DE), Volker Schneider (Technical University of Munich, DE), Vincent Fafard (Technical University of Munich, DE), Simon P. Schatz (Technical University of Munich, DE), Christoph Dörhöfer (Technical University of Munich, DE), Patrick J. Lauffs (Technical University of Munich, DE), Lars Peter (Technical University of Munich, DE), Florian Holzapfel (Technical University of Munich, DE)
12:05 - 12:25	918	Parameter estimation of a mini aerial vehicle using multiple trim flight data	<u>Pranavkumar V. Patel (Indian Institute of Technology, IN),</u> Hemendra Arya (Indian Institute of Technology, IN)
12:25 - 12:45	261	An aeronautical approach to the RPAS management. Future perspectives	Ernesto Llorente (Asociación de Ingenieros Aeronáuticos de España, ES)
Session 44 (special session). AGILE III			
lorga I Hall. Session chair: Jan Vos (CFS Engineering, CH)			
Host: Mihai Sim	na (Natio	onal Research and Development Institute for Gas Turbines COMOTI, RO	
10:45 - 11:05	270	Airframe - On board system - Propulsion system optimization for civil transport aircraft: AGILE EU project	Prajwal Shiva Prakasha (DLR, DE), Pier Davide Ciampa (DLR, DE), Luca Boggero (Politecnico di Torino, IT), Marco Fioriti
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			(Politecnico di Torino, IT), Benedikt Aigner (RWTH Aachen
			University, DE), Artur Mirzoyan (CIAM, RU), Alik Isyanov
			(CIAM, RU), Kirill Anisimov (TsAGI, RU), Andrey Savelyev
			(TsAGI, RU)
			Riccardo Lombardi (Noesis Solutions, BE), Marco Fioriti
		Automated selection of airliner optimal on-board systems	(Politecnico di Torino, IT), Luca Boggero (Politecnico di
11:05 - 11:25	258	architecture within MDO collaborative environment	Torino, IT), Luciana Lo Verde (Leonardo Aircraft, IT), Nicola
			Catino (Leonardo Aircraft, IT), Artur Mirzoyan (CIAM, RU),
			Roberto D"Ippolito (Noesis Solutions, BE)
			Dominique Charbonnier (CFS Engineering, CH), Jan B. Vos
11.25 11.45	272	Lawrence de la conferencia analysis	(CFS Engineering, CH), Prajwal Shiva Prakasha (DLR, DE),
11:25 - 11:45	272	Low speed take-off aerodynamic analysis	Artur Mirzoyan (CIAM, RU), Andrey Savelyev (TsAGI, RU)
			Pierluigi Della Vecchia (University of Naples "Federico II", IT)
11:45 - 12:05	852	Knowledge-based automatic airframe design using CPACS	Jan-Niclas Walther (DLR, DE), Pier Davide Ciampa (DLR, DE)
12:05 - 12:45	AGILE	Academy Workshop	,
Session 45 (wo	rkshop).	EWADE I: 13th European Workshop on Aircraft Design Education (EWADE III)	ADE 2017)
•	• •	udies. Concepts, Tools and New Ideas in Aircraft Design	,
		ir: Dieter Scholz (Hamburg University of Applied Sciences, DE)	
Host: Dragos N	lihai (Na	tional Research and Development Institute for Gas Turbines COMOTI, I	RO)
10:45 - 11:05	3001	Welcome to EWADE 2017	Dieter Scholz (Hamburg University of Applied Sciences, DE)
11.05.11.00		Education in aerospace engineering at the University "Politehnica"	Octavian Pleter (University "Politehnica" of Bucharest, RO),
11:05 - 11:30	3002	of Bucharest	Sterian Dănăila (University "Politehnica" of Bucharest, RO)
11:30 - 11:55	3003	Aircraft systems engineering and concept evaluation	Petter Krus (Linköping University, SE)
11.55 10.00		Innovative tools for aircraft preliminary design – development,	
11:55 - 12:20	3004	applications and education	Fabrizio Nicolosi (University of Naples "Federico II", IT)
10.00 10.15		Specific fuel consumption of jet engines – Implications in aircraft	
12:20 - 12:45	3005	design and performance calculations	<u>Dieter Scholz (Hamburg University of Applied Sciences, DE)</u>
Session 46 (wo	rkshop).	Space Technologies and Advanced Research II	
		hair: Rafael Bureo Dacal (ESA, ES)	
Host: Oana Dui	mitrescu	(National Research and Development Institute for Gas Turbines COMC	OTI, RO)
			Dan Ifrim (National Research and Development Institute for
40.45.44.05	2525	New technologies on developing wide range thermic facilities, based	Gas Turbines COMOTI, RO), Radu Mihalache (National
10:45 - 11:05	2505	on low pressure temperature controlled Helium environment	Research and Development Institute for Gas Turbines
			COMOTI, RO)
			, ,

11:05 - 11:25	2506	Sealing system development	Radu Mihalache (National Research and Development Institute for Gas Turbines COMOTI, RO), Dan Ifrim (National Research and Development Institute for Gas Turbines COMOTI, RO)
11:25 - 11:45	2507	OrbiPro - accurate orbital propagator for modelling the effect of various perturbations for GNC and AOCS system's design	Lucian Bărbulescu (CS Romania, RO), Alin Buţu (CS Romania, RO), Mădălin Mămuleanu (CS Romania, RO), Sorin Scorţan (CS Romania, RO), Thierry Ceolin (CS Systèmes d'Information, FR), Roberto Alacevich (CS Systèmes d'Information, FR), Jonathan Grzymisch (ESA/ESTEC, NL)
11:45 - 12:05	2508	Advances in visual based navigation approach and landing scenarios	Cristian Corneliu Chitu (GMV Romania, RO)
12:05 - 12:25	2519	ESA Constellation Coordination System (Saocom)	Bogdan Bija (GMV Romania, RO)
12:25 - 12:45	2520	Multi Constellation GNSS Operational Benefits for Aviation (MULCOBA)	Florin Mistrapau (GMV Romania, RO)
12:45 - 13:45	Lunch Take Id	onescu Hall	
Bratianu I Hall.	Session	ssion). Propulsion II chair: Sterian Danaila (University "Politehnica" of Bucharest, RO) <i>Vilag (National Research and Development Institute for Gas Turbines (</i>	COMOTI, RO)
13:45 - 14:05	822	Sounding Rockets. Analysis, simulation and optimization of a solid propellant motor	Laura Navarrete Martín (Polytechnic University of Madrid, ES), Petter Krus (University of Linköping, SE)
14:05 - 14:25	867	Evaluation of piston engine modes and configurations in composite cycle engine architectures	Markus Nickl (Bauhaus Luftfahrt, DE), Sascha Kaiser (Bauhaus Luftfahrt, DE)
14:25 - 14:45	888	Unsteady full annulus multi-stage compressor calculations – Details on CFD-experiment comparison	Oliver Reutter (DLR, DE), Graham Ashcroft (DLR, DE), Eberhard Nicke (DLR, DE), Edmund Kügeler (DLR, DE)
14:45 - 15:05	892	Assessment of chemical time scale for a turbine burner	Dragos Isvoranu (University "Politehnica" of Bucharest, RO), Sterian Dănăilă (University "Politehnica" of Bucharest, RO), Alina Bogoi (University "Politehnica" of Bucharest, RO), Constantin Levențiu (University "Politehnica" of Bucharest, RO)
15:05 - 15:25	899	Vibration energy harvesting potential for turbomachinery applications	Adrian Stoicescu (National Research and Development Institute for Gas Turbines COMOTI, RO), Marius Deaconu (National Research and Development Institute for Gas Turbines COMOTI, RO), Romeo Dorin Hriţcu (National Research and Development Institute for Gas Turbines COMOTI, RO), Cristian Valentin Nechifor (National Research

			and Development Institute for Gas Turbines COMOTI, RO), Cristinel-Ioan Hărăguţă (National Research and Development Institute for Gas Turbines COMOTI, RO), Valeriu Alexandru Vilag (National Research and Development Institute for Gas Turbines COMOTI, RO) Oana Dumitrescu (National Research and Development Institute for Gas Turbines COMOTI, RO), George Bogdan Gherman (National Research and Development Institute for
15:25 - 15:45	819	Importance of a second entrance in a test cell	Gas Turbines COMOTI, RO), Ionut Porumbel (National Research and Development Institute for Gas Turbines COMOTI, RO)
Session 48 (tech	nnical se	ssion). Mechanisms and Robotics	
Bratianu II Hall.	Session	chair: Ion Stroe (University "Politehnica" of Bucharest, RO)	
Host: Radu Mih	alache (National Research and Development Institute for Gas Turbines COMOT	TI, RO)
13:45 - 14:05	178	Automated handling and positioning of large dry carbon fibre cutpieces with cooperating robots in rear pressure bulkhead production	Lars Brandt (DLR, DE), Mona Eckardt (DLR, DE)
14:05 - 14:25	347	Interaction of supercooled droplets and nonspherical ice crystals with a solid body in a mixed cloud	<u>Ivan A. Amelyushkin (TsAGI, RU)</u> , Albert L. Stasenko (TsAGI, RU)
14:25 - 14:45	686	A method for calculus of internal forces	Thien Van Nguyen (University "Politehnica" of Bucharest, RO), Ion Stroe (University "Politehnica" of Bucharest, RO), Roxana Alexandra Petre (University "Politehnica" of Bucharest, RO), Dan Dumitriu (University "Politehnica" of Bucharest, RO)
14:45 - 15:05	748	Sealing technologies trade-off for a Phobos sample return mission	Radu Mihalache (National Research and Development Institute for Gas Turbines COMOTI, RO), <u>Dragos Mihai</u> (National Research and Development Institute for Gas <u>Turbines COMOTI, RO</u>), Gheorghe Megherelu (National Research and Development Institute for Gas Turbines COMOTI, RO), Ionut Florian Popa (National Research and Development Institute for Gas Turbines COMOTI, RO), Dan Ifrim (National Research and Development Institute for Gas Turbines COMOTI, RO)
15:05 - 15:25	837	Failure analysis of a high-speed offset bearing	Daniela M. Buzescu (National Research and Development Institute for Gas Turbines COMOTI, RO), Sorin Gabriel

			Tomescu (National Research and Development Institute for
			Gas Turbines COMOTI, RO)
			Mircea Modreanu (ICPE, RO), Ioana Ionica (ICPE, RO),
15:25 - 15:45	1240	Stepper motors for space applications-ICPE Activities	Cristian Boboc (ICPE, RO)
Session 49 (tech	hnical se	ession). Aircraft and Spacecraft Design IV	
		n chair: Charles Hirsch (Numeca International, BE)	
		tional Research and Development Institute for Gas Turbines COMOTI, F	RO)
			Constantin Sandu (National Research and Development
			Institute for Gas Turbines COMOTI, RO), Dan Brasoveanu
		Tackwales, for townstanger of Mara ather places and noticed	(Systems Engineering Group, US), Valentin Silivestru
13:45 - 14:05	199	Technology for terraformation of Mars, other planets and natural satellites	(National Research and Development Institute for Gas
		Satellites	Turbines COMOTI, RO), Bogdan Filipescu (Teletrans, RO),
			Radu Constantin Sandu (Structural Management Solutions,
			RO)
			Vittorio Cipolla (SkyBox Engineering, IT), Aldo Frediani
	961	Preliminary transonic CFD analyses of a PrandtlPlane transport aircraft	(University of Pisa, IT), Karim Abu Salem (University of Pisa,
14:05 - 14:25			IT), Vincenzo Binante (SkyBox Engineering, IT), Marco
			Maganzi (University of Pisa, IT), Emanuele Rizzo (SkyBox
			Engineering, IT)
			Ana Garcia Garriga (United Technologies Research Centre,
			IE), Parithi Govindaraju (United Technologies Research
14:25 - 14:45	869	A modelling framework to support power architecture trade-off	Centre, IE), Sangeeth Saagar Ponnusamy (United
		studies for more-electric aircraft	Technologies Research Centre, IE), Nicola Cimmino
			(Università degli Studi di Napoli "Federico II", IT), Laura Mainini (United Technologies Research Centre, IE)
		Response surface analysis and desirability function optimization to	Maillin (Officed Technologies Research Centre, 12)
14:45 - 15:05	168	obtain aerodynamically optimized store with low aspect ratio wings	Umut Can Küçük (TUBITAK SAGE, TR)
Session 50 (wor	rkshon)	Future through Education I	
•		n chair: Octav Alexan (Euroavia, RO)	
		nal Research and Development Institute for Gas Turbines COMOTI, RO)	
13:45 - 14:05	2601	TBA	TBA
14:05 - 14:25	2602	TBA	TBA
14:25 - 14:45	2603	TBA	TBA
14:45 - 15:05	2604	TBA	TBA
15:05 - 15:25	2605	TBA	TBA

15:25 - 15:45	2606	TBA	TBA	
Session 51 (tech	Session 51 (technical session and workshop). Rotorcraft			
	lorga I Hall. Session chair: Achim Ionita (National Institute for Aerospace Research "Elie Carafoli", RO)			
Host: Mihai Sim	a (Natio	onal Research and Development Institute for Gas Turbines COMOTI, RO		
13:45 - 14:05	171	Testing of experimental and numerical methods for investigation of the unsteady flow induced by rotor influence on heliport	Wit Stryczniewicz (Institute of Aviation, PL), Paweł Ruchała (Institute of Aviation, PL), Grzegorz Krysztofiak (Institute of Aviation, PL), Wiesław Zalewski (Institute of Aviation, PL), Adam Dziubiński (Institute of Aviation, PL), Małgorzata Wojtas (Institute of Aviation, PL), Kazimierz Szumański (Institute of Aviation, PL)	
14:05 - 14:25	296	Helicopter roll-axis instabilities induced by pilot cyclic control: A physical explanation	Marilena D. Pavel (Delft University of Technology, NL), <u>Achim Ionita (National Institute for Aerospace Research</u> <u>"Elie Carafoli", RO)</u>	
14:25 - 14:45	812	A new framework for rotorcraft in-flight noise monitoring	Lorenzo Trainelli (Politecnico di Milano, IT)	
14:45 - 15:05	905	Considerations regarding optimization of low speed balancing of high speed flexible rotors	Alexandru Tudorache (National Research and Development Institute for Gas Turbines COMOTI, RO), Ion Fuiorea (University "Politehnica" of Bucharest, RO)	
15:05 - 15:25	216	Dynamic stability analysis of the light gyroplane	Tomasz Goetzendorf-Grabowski (Warsaw University of Technology, PL), Marcin Figat (Warsaw University of Technology, PL)	
15:25 - 15:45	225	Experimental investigation of collective pitch changes in the vortex ring conditions	Katarzyna Surmacz (Institute of Aviation, PL), <u>Paweł Ruchała</u> (Institute of Aviation, PL)	
Session 52 (wor	kshop).). 13th European Workshop on Aircraft Design Education (EWADE 201	7) with video conference from: AWADE 2017 at	
Iorga II Hall. Ses	Nanjing University of Aeronautics and Astronautics, China – Aero Education Case Studies. History, Drag, Noise and Certification in Aerospace Design lorga II Hall. Session chair: Oleksiy Chernykh (Nanjing University of Aeronautics and Astronautics, CN) Host: Dragos Mihai (National Research and Development Institute for Gas Turbines COMOTI, RO)			
13:45 - 14:00	3006	Welcome to Asian AWADE and European EWADE	Jizhou Lai (Nanjing University of Aeronautics and Astronautics, CN)	
14:00 - 14:25	3007	Aerospace engineering education at Nanjing University of Aeronautics and Astronautics	Pinqi Xia (Nanjing University of Aeronautics and Astronautics, CN)	
14:25 - 14:45	3008	The 60th anniversary of the launch of the first satellites – Historical and technical analysis	Zhijin Wang, (Nanjing University of Aeronautics and Astronautics, CN), Anatoly Kretov (Nanjing University of Aeronautics and Astronautics, CN)	
14:45 - 15:05	3009	Generation of the drag map and derivative plots for commercial aircraft	Anthony Hays (California State University, US)	

15:05 - 15:25	3010	Aircraft noise sources and analysis of possibilities for noise Reduction	<u>Dmitry Tinyakov (National Aerospace University, Kharkiv</u> <u>Aviation Institute, UA)</u> , Yuliya Babenkova (National Aerospace University – Kharkiv Aviation Institute, UA)
15:25 – 15:45	3011	Airworthiness knowledge for Chinese aviation	Oleksiy Chernykh (Nanjing University of Aeronautics and Astronautics, CN)
Session 53 (wor	kshop).	Space Technologies and Advanced Research III	
Balcescu Hall. S	ession c	hair: Rafael Bureo Dacal (ESA, ES)	
Host: Oana Dur	nitrescu	(National Research and Development Institute for Gas Turbines COMO	OTI, RO)
13:45 - 14:05	2509	Validation and verification of the GNC system for an asteroid mission	Tudor Muresan (ESA, FR), Massimo Casasco, (ESA, FR)
14:05 - 14:25	2510	IMFUSING – GNSS Localization in Constraint Environment by Image Fusing Techniques	Ciprian David (Politehnica University of Timișoara, RO), Vasile Gui (Politehnica University of Timișoara, RO), Andrei Campeanu (Politehnica University of Timișoara, RO), Corina Nafornita (Politehnica University of Timișoara, RO), Alexandru Isar (Politehnica University of Timișoara, RO), Ioan Nafornita (Politehnica University of Timișoara, RO), Marius Otetesteanu (Politehnica University of Timișoara, RO), Monica Nafornita (Politehnica University of Timișoara, RO), Guillaume Carrie (TAS-F, FR), Michel Monnerat (TAS-F, FR), Pauline Martin (TAS-F, FR)
14:25 - 14:45	2511	TSP Demo of Linux and RTEMS for XtratuM	Valentin Picos (ENEA, RO), Stefan Curelea (ENEA, RO), Victor Corchez (ENEA, RO), Andrei Paval (ENEA, RO)
14:45 - 15:05	2512	Implementation of CFDP and integration into an onboard software application framework providing Time and Space Partitioning (TSP)	Valentin Picos (ENEA, RO), <u>Serban Vatavu (ENEA, RO)</u>
15:05 - 15:25	2513	Planar heater based on elctroconductive Carbon fibers designed for satellite thermal management	Aristofan Teisanu (National Institute for Research and Development in Electrical Engineering ICPE-CA, RO), Dorin Rosu (Compozite LTD, RO) Alina Caramitru (National Institute for Research and Development in Electrical Engineering ICPE-CA, RO), Sorina Mitrea (National Institute for Research and Development in Electrical Engineering ICPE-CA, RO)
15:25 - 15:45	2517	Fragmentation Event Model and Assessment Tool (FREMAT)	Roxana Larisa Andrisan (Deimos Space, RO), Alina Georgia Ionita (Deimos Space, RO), Raul Dominguez Gonzalez (Deimos Space, ES), Noelia Sanchez Ortiz (Deimos Space, ES), Fernando Pina Caballero (Deimos Space, RO), Holger Krag (ESA, DE)

15:45 - 16:00	Coffee break			
Session 54 (technical session). Space Propulsion				
Bratianu I Hall. S	Session	chair: Tobias Langener (ESA, NL)		
Host: Valeriu Al	exandru	Vilag (National Research and Development Institute for Gas Turbines (COMOTI, RO)	
			Constantin Sandu (National Research and Development	
16:00 - 16:20	201	A new design of space equipment for rapid disintegration in atmosphere after reentry	Institute for Gas Turbines COMOTI, RO), Dan Brasoveanu (Systems Engineering Group, US), Valentin Silivestru (National Research and Development Institute for Gas Turbines COMOTI, RO), Bogdan Filipescu (Teletrans, RO), Radu Constantin Sandu (Structural Management Solutions, RO)	
16:20 - 16:40	194	Considerations of direct solar thermal power generation systems for space propulsion	Alexandru Onea (Karlsruhe Institute of Technology, DE), Nerea Diez de los Rios Ramos (Karlsruhe Institute of Technology, DE), Robert Stieglitz (Karlsruhe Institute of Technology, DE)	
16:40 - 17:00	301	Numerical investigation of a new LH2 centrifugal pump concept used in space propulsion	Ion Mălăel (National Research and Development Institute for Gas Turbines COMOTI, RO), George Bogdan Gherman (National Research and Development Institute for Gas Turbines COMOTI, RO), Ionuţ Porumbel (National Research and Development Institute for Gas Turbines COMOTI, RO)	
17:00 - 17:20	860	Finite Element Modelling and performance optimization of an ion thruster depending on the nature of the propellant	Ionuţ-Florian Popa (National Research and Development Institute for Gas Turbines COMOTI, RO), Anna-Maria Theodora Andreescu (National Research and Development Institute for Gas Turbines COMOTI, RO), Dan Ifrim (National Research and Development Institute for Gas Turbines COMOTI, RO), Radu Mihalache (National Research and Development Institute for Gas Turbines COMOTI, RO), Dragoş Mihai (National Research and Development Institute for Gas Turbines COMOTI, RO), Grigore Cican (University "Politehnica" of Bucharest, RO)	
17:20 - 17:40	303	Experimental approach regarding the ignition of H2/O2 mixtures in vacuum environment	Jeni Alina Popescu (National Research and Development Institute for Gas Turbines COMOTI, RO), Valeriu Alexandru Vilag (National Research and Development Institute for Gas Turbines COMOTI, RO), Ionuț Porumbel (National Research and Development Institute for Gas Turbines COMOTI, RO),	

			Cleopatra Florentina Cuciumita (National Research and
			Development Institute for Gas Turbines COMOTI, RO),
			Nicolae Macrișoiu (National Research and Development
			Institute for Gas Turbines COMOTI, RO)
17:40 - 18:00	1095	A new vision - Eco-friendly launching propulsion – The Future	Alexandru Ene Călinescu (RO)
Session 55 (tech	hnical se	ession). Mission Design and Space Systems	
Bratianu II Hall.	Session	r chair: Elena Cristina Paul (ESA, FR)	
Host: Radu Mih	alache (National Research and Development Institute for Gas Turbines COMOT	rı, RO)
			Min-Hyun Cho (Korea Advanced Institute of Science and
16:00 - 16:20	230	Reconstruction of high-frequency Lunar digital elevation model	Technology, KR), Ji-Hoon Bai (Korea Advanced Institute of
10.00 - 10.20	230	using shape from shading	Science and Technology, KR), Min-Jea Tahk (Korea
			Advanced Institute of Science and Technology, KR),
			Dan Gultureanu (Space Systems / Loral, US), Kevin Kerns
16:20 - 16:40	233	Flight software development and validation workflow management	(Space Systems / Loral, US), Tom Henthorn (Space Systems
10.20 10.40	233	system	/ Loral, US), John Quach (Space Systems / Loral, US), Mitch
			Kleen (Space Systems / Loral, US),
			Antonio Russo (Deimos Space, RO), Alina Ionița (Deimos
			Space, RO), Fernando Pina Caballero (Deimos Space, RO),
16:40 - 17:00	901	REVLANSYS: Mission and GNC design of terminal entry and landing	Giovanni Medici (Deimos Space, ES), Cristina Recupero
10.10 17.00	301	missions for advanced re-entry vehicles	(Deimos Space, ES), Gabriele De Zaiacomo (Deimos Space,
			ES), Murray Kerr (Deimos Space, ES), Celia Yabar Valles (ESA
			- ESTEC, NL)
			Tudorel-Petronel Afilipoae (National Institute for Aerospace
			Research "Elie Carafoli", RO), <u>Ana-Maria Neculăescu</u>
			(National Institute for Aerospace Research "Elie Carafoli",
			RO), Alexandru-Iulian Onel (National Institute for Aerospace
			Research "Elie Carafoli", RO), Mihai-Victor Pricop (National
			Institute for Aerospace Research "Elie Carafoli", RO),
17:00 - 17:20	1232	Launch vehicle - MDO in the development of a microlauncher	Alexandru Marin (National Institute for Aerospace Research
			"Elie Carafoli", RO), Alexandru-Gabriel Perșinaru (National
			Institute for Aerospace Research "Elie Carafoli", RO),
			Alexandru-Mihai Cişmilianu (National Institute for
			Aerospace Research "Elie Carafoli", RO), Ionuț-Cosmin
			Oncescu (National Institute for Aerospace Research "Elie
			Carafoli", RO), Adrian Toader (National Institute for

			Aerospace Research "Elie Carafoli", RO), Adriana Sirbi (ESA, FR), Samir Bennani (ESA, NL), Teodor-Viorel Chelaru (University "Politehnica" of Bucharest, RO)
17:20 - 17:40	1241	Mission planning approach for an exoplanet characterization satellite	Javier Fernández-Villacañas Cabezas (Deimos Space, RO), Paulo J. S. Gil (Universidade de Lisboa, PT), Antonio Gutiérrez Peña (Deimos Space, ES)
17:40 - 18:00	1250	Multi constellation GNSS operational benefits for aviation	George Muntean (GMV, RO), Cristian Corneliu Chitu (GMV)
Bratianu III Hall	. Sessio	ssion and workshop). Manufacturing Technologies n chair: Gheorghe Matache (National Research and Development Institute for Gas Turbines COMOTI, H	
16:00 - 16:20	163	Composite wind turbine blade using prepreg technology	Ionuț Sebastian Vintilă (National Research and Development Institute for Gas Turbines COMOTI, RO), Mihaela Raluca Condruz (National Research and Development Institute for Gas Turbines COMOTI, RO), Ion Fuiorea (University "Politehnica" of Bucharest, RO), Ion Mălăel (National Research and Development Institute for Gas Turbines COMOTI, RO), Mihail Sima (National Research and Development Institute for Gas Turbines COMOTI, RO)
16:20 - 16:40	164	Composite material designs for lightweight space packaging structures	Mihaela Raluca Condruz (National Research and Development Institute for Gas Turbines COMOTI, RO), Lucia Raluca Voicu (National Research and Development Institute for Gas Turbines COMOTI, RO), Cristian Pușcașu (National Research and Development Institute for Gas Turbines COMOTI, RO), Ionuț Sebastian Vintilă (National Research and Development Institute for Gas Turbines COMOTI, RO), Mihail Sima (National Research and Development Institute for Gas Turbines COMOTI, RO), Marius Deaconu (National Research and Development Institute for Gas Turbines COMOTI, RO), Luminița Drăgășanu (National Research and Development Institute for Gas Turbines COMOTI, RO), Luminița Drăgășanu (National Research and Development Institute for Gas Turbines COMOTI, RO)
16:40 - 17:00	858	Spacecraft bracket design using additive manufacturing	Alexandru-Mihai Cismilianu (National Institute for Aerospace Research "Elie Carafoli", RO), Camelia Elena Munteanu (National Institute for Aerospace Research "Elie Carafoli", RO), Ionut-Cosmin Oncescu (National Institute for Aerospace Research "Elie Carafoli", RO), Mihaela Nastase

			(National Institute for Aerospace Research "Elie Carafoli",		
			RO), Radu-Petru Bibire (National Institute for Aerospace		
			Research "Elie Carafoli", RO), Ion Dima (National Institute		
			for Aerospace Research "Elie Carafoli", RO), Mihai Victor		
			Pricop (National Institute for Aerospace Research "Elie		
			Carafoli", RO)		
			Diego de Matos Monteiro (Instituto Tecnológico de		
			Aeronáutica, BR), Leonardo Murilo Nepomuceno (Instituto		
			Tecnológico de Aeronáutica, BR), Roberto Gil Annes da Silva		
17.00 17.20	929	Subscale flight test model development and testing as a tool for	(Instituto Tecnológico de Aeronáutica, BR), Marcos da Silva		
17:00 - 17:20	929	unconventional aircraft design	e Souza (Instituto de Aeronáutica e Espaço, BR), Flávio José		
			Silvestre (Instituto Tecnológico de Aeronáutica, BR), Petter		
			Krus (Linkoping University, SE), Alejandro Sobrón Rueda		
			(Linkoping University, SE)		
			Adi Adumitroaie (Johannes Kepler University of Linz, AT),		
17:20 - 17:40	914	Additive manufacturing of fiber reinforced composites for structural applications under high load conditions	Fedor Antonov (Anisoprint, RU), Andreas Haider		
	52.		(Kompetenzzentrum Holz, AT)		
Session 57 (wor	Session 57 (workshop). Future through Education II				
Bratianu IV Hall	. Sessio	n chair: Bianca Moldovanu (Euroavia, RO)			
Host: Ion Malae	el (Natio	nal Research and Development Institute for Gas Turbines COMOTI, RO			
16:00 - 16:20	2607	TBA	TBA		
16:20 - 16:40	2608	TBA	TBA		
16:40 - 17:00	2609	TBA	TBA		
17:00 - 17:20	2610	TBA	TBA		
17:20 - 17:40	2611	TBA	TBA		
17:40 - 18:00	2612	TBA	TBA		
Session 59 (wor	kshop).	13th European Workshop on Aircraft Design Education (EWADE 2017)			
Aero Education	Case St	udies. Student Projects, Tools and Concepts in Aircraft Design. Publicat	tions in Aircraft Design. Discussion about EWADE 2019		
	lorga II Hall. Session chair: Petter Krus (Linköping University, SE)				
Host: Dragos Mihai (National Research and Development Institute for Gas Turbines COMOTI, RO)					
16:00 - 16:25	3012		Emmanuel Bénard (Institut Supérieur de l'Aéronautique et		
10.00 - 10.25	3012		de l'Espace, FR), Peter Schmollgruber (ONERA, FR)		
16.25 16.50	903	Award-winning innovative aircraft design projects at Politecnico di	Lorenzo Trainelli (Politecnico di Milano, IT), Carlo Riboldi		
16:25 - 16:50	802	Milano	(Politecnico di Milano, IT)		
		· · · · · · · · · · · · · · · · · · ·	(1 directines at winding, 11)		

17:15 - 17:25	3014	Results of READ/SCAD 2016 – Proposal of a joint READ/EWADE/SCAD	Tomasz Goetzendorf-Grabowski (Warsaw University of	
		Workshop 2018	<u>Technology, PL)</u>	
	17:25 - 18:00 Discussion – Next EWADE and Cooperation with AWADE, READ, SCAD and CEAS 2019			
-		Space Technologies and Advanced Research IV		
		hair: Rafael Bureo Dacal (ESA, ES)		
Host: Oana Dur	nitrescu	(National Research and Development Institute for Gas Turbines COMC	PTI, RO)	
16:00 - 16:20	2514	Preparatory activity for the design, manufacturing and testing of Laser retro-reflectors	Constantin Marin (Pro Optica, RO)	
16:20 - 16:40	2516	Data fusion system for Black Sea water quality monitoring (DaFSys)	Sorin Constantin (Terrasigna, RO), Catalin Cucu - Dumitrescu (Terrasigna, RO), Florin Serban (Terrasigna, RO), Ana Costea (Terrasigna, RO)	
16:40 - 17:00	2518	Big Data SW framework for EGSE Products	Christophoros Kavadias (Teletel Space, RO)	
17:00 - 17:20	2521	Preparatory activities for the design, manufacturing and testing of electrical harnesses and electronics for Space instruments	Paul Mihai Puscasu (A-E Electronics, RO)	
18:00 - 18:10	Coffee	break		
Session 61 (plei	nary). Cl	osing session		
Human Rights H	Hall.			
18:10 - 18:20	34	Closing address	Valentin Silivestru (National Research and Development Institute for Gas Turbines COMOTI, RO)	
Day 5: Friday, C	October	20 th , 2017		
Technical Visit	1. Brasov	I .		
Host: George Bo	ogdan G	herman(National Research and Development Institute for Gas Turbines	s COMOTI, RO)	
09:00	Depart	ture from the Palace of the Parliament		
09:00 - 11:30	Transp	ortation Bucharest - Brasov		
11:30 - 14:00	Visit of	f the IAR Brasov facility		
14:00 - 15:30	Transp	ortation Brasov - Sinaia		
15:30 - 17:30	Visit of	f the Peles Castle (Sinaia)		
17:30 - 18:30	Lunch			
18:30 - 21:00	Transportation Sinaia - Bucharest			
21:00	Arrival	at the Palace of the Parliament		
Technical Visit 2	2. Bacau			
Host: Valeriu Al		Vilag (National Research and Development Institute for Gas Turbines	COMOTI, RO)	
09:00	Depart	Departure from the Palace of the Parliament		
09:00 - 13:00		Transportation Bucharest - Bacau		
13:00 - 15:30	Visit of the Aerostar Bacau facility			

15:30 - 16:30	Lunch		
16:30 - 17:00	Transportation Bacau - Panciu		
17:00 - 18:00	Visit of the Panciu winery		
18:00 - 22:00	Transportation Panciu - Bucharest		
22:00	Arrival at the Palace of the Parliament		
Technical Visit 3	3. Magurele		
Host: Radu Mih	alache (National Research and Development Institute for Gas Turbines COMOTI, RO)		
10:00	Departure from the Palace of the Parliament		
10:00 - 11:00	Transportation Bucharest - Magurele		
11:00 - 12:00	Visit of the Institute for Space Sciences		
12:00 - 13:00	Visit of the Extreme Light Infrastructure facility		
13:00 - 14:00	Transportation Magurele - Bucharest		
Technical Visit 4	Technical Visit 4. Bucharest Banease		
Host: Radu Mih	Host: Radu Mihalache (National Research and Development Institute for Gas Turbines COMOTI, RO)		
10:00	Departure from the Palace of the Parliament		
10:00 - 11:00	Transportation City Centre - Baneasa		
11:00 - 13:00	Visit of Romaero S.A.		
13:00 - 14:00	Transportation Baneasa - City Centre		
Technical Visit 5	5. Militari		
Host: Radu Mih	alache (National Research and Development Institute for Gas Turbines COMOTI, RO)		
10:00	Departure from the Palace of the Parliament		
10:00 - 11:00	Transportation City Centre - Militari		
11:00 - 12:00	Visit of the National Institute for Aerospace Research "Elie Carafoli"		
12:00 - 13:00	Visit of the National Research and Development Institute for Gas Turbines COMOTI		
13:00 - 14:00	Transportation Magurele - Bucharest		

Notes: Oral presentations in italics. Presentations of peer reviewed technical papers in normal font. Speaker names are underlined.

Exhibition program

Day	Hours
Exhibition Hall. Host: Leonard Trifu (National Research and Development Institute for Gas Turbines COMOTI, RO)	
Day 1: Monday, October 16th, 2017	10:00 - 18:00
Day 2: Tuesday, October 17 th , 2017	09:00 - 18:00
Day 3: Wednesday, October 18th, 2017	09:00 - 16:00
Day 4: Thursday, October 19 th , 2017	09:00 - 16:00

Host: Leonard Trifu (National Research and Development Institute for Gas Turbines COMOTI, RO)