

CONFERENCE PROGRAM

Wednesday 26.10.2016 – “ELIE CARAFOLI” Amphitheatre

8.³⁰ - 9.³⁰ **REGISTRATION**

Coffee Break

9.³⁰ - 10.⁰⁰ **OPENING SESSIONS**

Welcome speech:

- **Catalin NAE**, General Manager, INCAS – National Institute for Aerospace Research “Elie Carafoli”, Bucharest, Romania
- **Anton ANTON**, Technical University of Civil Engineering Bucharest, Romania

PLENARY SESSIONS

PL **Chairman:**

Catalin NAE

10.⁰⁰ - 10.³⁰

PL 1 **Jochen WILD** (German Aerospace Center, Institute of Aerodynamics and Flow Technology, Lilienthalplatz 7, 38108 Braunschweig, Germany), *On the most common misunderstandings of high-lift flows.*

10.³⁰ - 11.⁰⁰

PL 2 **Hans BARNERSSOI** (Ex-Project Manager, Airbus Helicopters Germany, Industriestrasse 4, 86609 Donauwörth, Germany), *Setting up of a Fast Rotorcraft Project. Experience gained by a Project Manager.*

11.⁰⁰ - 11.³⁰

Coffee Break

11.³⁰ - 12.⁰⁰

PL 3 **Eric COUSTOLS** (Director of Clean Sky 2 Programme at ONERA, ONERA Centre of Toulouse, 2 Avenue Edouard Belin FR-31055 Toulouse CEDEX 4, France), *“Review of Research Activities conducted at ONERA on Laminar Flows and Wing Buffet Control”.*

12.⁰⁰ - 12.³⁰

PL 4 **Adriana NASTASE** (RWTH, Aachen University, Germany), *Theoretical and Experimental Exploration of Supersonic Flow (Part 1).*

12.³⁰ - 13.⁰⁰

PL 5 **Octavian Thor PLETER, Cristian Emil CONSTANTINESCU** (“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Gh. Polizu Street 1-5, 011061, Bucharest, Romania), *Global Air and Maritime Co-operative Surveillance.*

13.⁰⁰ - 14.⁰⁰

Lunch

“ELIE CARAFOLI” Amphitheatre

Wednesday 26.10.2016. Afternoon session

PLENARY SESSIONS

PL **Co-Chairman:**

Sorin RADNEF

Mircea BOSCOIANU

14.⁰⁰ - 14.³⁰

PL 6 **Horia DUMITRESCU, Vladimir CARDOS** (“Gheorghe Mihoc – Caius Iacob” Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy, Calea 13 Septembrie no. 13, 050711 Bucharest, Romania), *Issues of Paradigmatic Nature of Origin of Turbulence*

Wednesday 26.10.2016 – “ELIE CARAFOLI” Amphitheatre

Section 1 – Aerodynamics

Wednesday 26.10.2016. Afternoon session

SI.2 Co-Chairman:

Sterian DANAILA
Florin FRUNZULICA

14.³⁰ - 14.⁵⁰

SI.2.1 *Numerical illustration of the global and local stability and instability of the constant spatially developing 1D gas flow*, Agneta M. BALINT¹, Stefan BALINT^{*2} (¹West University of Timisoara, Department of Physics, Bulv. V. Parvan 4, 300223 Timisoara, Romania, ²West University of Timisoara, Department of Computer Science, Bulv. V. Parvan 4, 300223 Timisoara, Romania).

14.⁵⁰ - 15.¹⁰

SI.2.2 *Numerical illustration of the global and local stability and instability of the constant spatially developing 2D gas flow*, Agneta M. BALINT¹, Stefan BALINT^{*2} (¹West University of Timisoara, Department of Physics, Bulv. V. Parvan 4, 300223 Timisoara, Romania, ²West University of Timisoara, Department of Computer Science, Bulv. V. Parvan 4, 300223 Timisoara, Romania).

15.¹⁰ - 15.³⁰

SI.2.3 *Assessment of some high-order finite difference schemes on the scalar conservation law with periodical conditions*, Alina BOGOI, Dragos ISVORANU, Sterian DANAILA* ("POLITEHNICA" University of Bucharest, Department of Aerospace Engineering, Splaiul Independenței 313, 060042, Bucharest, Romania).

15.³⁰ - 15.⁵⁰

SI.2.4 *Ice Accretion Prediction for 2D Geometries in the Presence of Ice Crystals*, Marius Gabriel COJOCARU*, Mihai Leonida NICULESCU, Dumitru PEPELEA, Mihaita Gilbert STOICAN, Mihai Victor PRICOP (INCAS – National Institute for Aerospace Research “Elie Carafoli”, Flow Physics Department, Numerical Simulation Unit, B-dul Iuliu Maniu 220, Bucharest 061136, Romania).

15.⁵⁰ - 16.¹⁰

SI.2.5 *Hybrid Methods for Design and Analysis for Small UAV Rotor Blades*, Alexandru DUMITRACHE, Florin FRUNZULICA, Alexandru MITREA (“Gheorghe Mihoc – Caius Iacob” Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy, Bucharest, Calea 13 Septembrie no. 13, 050711 Bucharest, Romania and “POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Gh. Polizu Street 1-5, 011061, Bucharest, Romania).

16.¹⁰ - 16.⁴⁰

Coffee Break

16.⁴⁰ - 17.⁰⁰

SI.2.6 *Numerical Investigation of a Vertical-Axis Wind Turbine with Variable-Pitch*, Florin FRUNZULICĂ^{*.1,2}, Ciprian OLTEANU³ (^{*.1}POLITEHNICA University of Bucharest, Faculty of Aerospace Engineering, Polizu 1-6, RO-011061, Bucharest, Romania; ²Institute of Statistics and Applied Mathematics, 13 Septembrie 13, sect.5, RO-050711, Bucharest, Romania; ³Turbomecanica S.A., Iuliu Maniu 244, sect 6, RO-061126, Bucharest, Romania).

Wednesday 26.10.2016 – “ELIE CARAFOLI” Amphitheatre

Section 3 – Astronautics and Astrophysics

Wednesday 26.10.2016. Afternoon session

S3.2 Co-Chairman:

Corneliu BERBENTE

Dan N. DUMITRIU

17.⁰⁰ - 17.²⁰

S3.2.1 *A Possible Universe in Pulsation by Using a Hydro-Dynamical Model for Gravity*, Corneliu BERBENTE (“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Department “Elie Carafoli” Aerospace Science, Polizu Street 1-7, postal code 011061, sector 1, Bucharest).

17.²⁰ - 17.⁴⁰

S3.2.2 *General Oscillatory Motion of a Large Spacecraft around its Equilibrium Attitude Posture, due to the Gravitational Moments Effect*, Ion STROE¹, Dan N. DUMITRIU² (¹“POLITEHNICA” University of Bucharest, 313 Splaiul Independenței, Bucharest 060042, Romania; ²Institute of Solid Mechanics of the Romanian Academy, Str. Constantin Mille 15, Bucharest 010141, Romania).

17.⁴⁰ - 18.⁰⁰

S3.2.3 *Using Binet type of equation for relative motion*, Roxana Alexandra PETRE*, Thien Van NGUYEN, Ion STROE (“POLITEHNICA” University of Bucharest, Department of Mechanics, 313 Splaiul Independentei, Bucharest, Romania).

18.⁰⁰ - 18.²⁰

S3.2.4 *Concept Study of Radio Frequency (RF) Plasma Thruster for Space Propulsion*, Anna-Maria Theodora ANDREESCU¹, Maximilian-Vlad TEODORESCU², Jeni Alina POPESCU¹, Valeriu-Alexandru VILAG¹, Adrian STOICESCU¹ (¹Romanian Research and Development Institute for Gas Turbines COMOTI, <http://www.comoti.ro>; ²National Institute for Laser, Plasma and Radiation Physics INFLPR, <http://www.inflpr.ro>).

18.²⁰ - 18.⁴⁰ *Q & A*

19.⁰⁰ *GALA DINNER*

Wednesday 26.10.2016 – “Nicolae TIPEI” Amphitheatre

Section 2 – Flight Mechanics and Systems Integration

Wednesday 26.10.2016. Afternoon session

S2.2. Co-Chairman:

Marius STOIA-DJESKA
Ion STROE

14.³⁰ - 14.⁵⁰

S2.2.1 *A Local Sensitivity Analysis of Some Performances of Reactive Projectiles, Rockets and Missiles*, Florin MINGIREANU¹, Marius STOIA-DJESKA² (¹Romanian Space Agency, Mendeleev Street, nr. 21-25, Bucharest, 010362/ Romania; ²“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Polizu Street 1-7, postal code 011061, sector 1, Bucharest).

14.⁵⁰ - 15.¹⁰

S2.2.2 *Analysis of Dynamic Stability on Ground Roll for a Jet Transport Under Crosswind and Slippery Conditions*, Achim IONITA¹, Andreea-Irina AFLOARE² (¹AEROSPACE Consulting, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania; ²INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

15.¹⁰ - 15.³⁰

S2.2.3 *Efficiency Analysis of Earth-Mars Interplanetary Travel Using a Solar Sail Propulsion Device plant*, Radu BLIDERAN, Alexandru IONEL, Mihaela NASTASE (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

15.³⁰ - 15.⁵⁰

S2.2.4 *A Preliminary Tool for Trajectory Optimization for a Small Launcher*, Ana-Maria NECULAESCU¹, Ion STROE² (¹INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania; ²“POLITEHNICA” University of Bucharest, 313 Splaiul Independenței, Bucharest 060042, Romania).

15.⁵⁰ - 16.¹⁰

S2.2.5 *Decelerator systems for the atmospheric reentry of launcher upper stages*, Bogdan DOBRESCU, Radu BLIDERAN, Adrian CHELARU (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

16.¹⁰ - 16.⁴⁰

Coffee Break

S2.2. Co-Chairman:

Florin MINGIREANU
Mihai Victor PRICOP

16.⁴⁰ - 17.⁰⁰

S2.2.6 *Direct Spatial Motion Simulation of Aircraft Subjected to Engine Failure*, Yassir ABBAS¹, Mohammed MADBOULI², Gamal EL-BAYOUMI² (¹Aeronautical Engineering Department, Engineering College, Karary University, Khartoum, Sudan; ²Aeronautical Engineering Department, Engineering College, Cairo University, Giza State, Egypt).

17.⁰⁰ - 17.²⁰

S2.2.7 *Performance Analysis of the IAR 99 SOIM and IAR 99 TD Propulsion Systems*, Alexandru IONEL, Stefan PALAS, Irina-Carmen ANDREI (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

17.²⁰ - 17.⁴⁰

S2.2.8 *Numerical Simulation on the Efficiency of Propulsion Systems as Leo Deorbiting Devices*, Mihaela NASTASE, Radu BLIDERAN, Alexandru IONEL (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

17.⁴⁰ - 18.⁰⁰

S2.2.9 *Dynamic Stability of Earth Re-Entry Capsule*, Dumitru PEPELEA, Marius Gabriel COJOCARU, Mihai Victor PRICOP, Mihai Leonida NICULESCU (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

18.²⁰ - 18.⁴⁰ ***Q & A***

19.⁰⁰ ***GALA DINNER***

Wednesday 26.10.2016 – “Conference room”, et. 2, corp B

Section 4 – Materials and Structures

Wednesday 26.10.2016. Afternoon session

S4.2 Co-Chairman:

Daniela BARAN
Stefan SOROCHAN

14.³⁰ - 14.⁵⁰

S4.2.1 *Materials in Extreme Environments at ELI-NP*, Theodor ASAVEI¹, Marilena TOMUT², Mariana BOBEICA¹, Sohichiroh AOGAKI¹, Mihail CERNAIANU¹, Daniel URSESCU¹, Dan STUTMAN¹ (¹ELI-NP, “Horia Hulubei” National Institute for Physics and Nuclear Engineering, 30 Reactorului Street, RO-077125, Bucharest-Magurele, Romania; ²GSI Helmholtzzentrum für Schwerionenforschung GmbH, 64291 Darmstadt, Germany).

14.⁵⁰ - 15.¹⁰

S4.2.2 *Dimensioning of a Sandwich Panel with Orthotropic Core Consisting of Lightweight Profiles*, Adriana Georgeta SANDU*, Marin SANDU, Stefan SOROCHAN, Dan Mihai CONSTANTINESCU (“POLITEHNICA” University of Bucharest, Department of Strength of Materials, Splaiul Independenței 313, 060042, Bucharest, Romania).

15.¹⁰ - 15.³⁰

S4.2.3 *Use of Modal Fea for Accurate Estimation of out of Plane Shear Moduli of Honeycomb Cores in Sandwich Panels*, Stefan SOROCHAN*, Dan Mihai CONSTANTINESCU, Marin SANDU, Adriana Georgeta SANDU (“POLITEHNICA” University of Bucharest, Department of Strength of Materials, Splaiul Independenței 313, 060042, Bucharest, Romania).

15.³⁰ - 15.⁵⁰

S4.2.4 *Multipurpose Interaction Chamber for Evaluation of the Outer Space Effects in Condensed Matter*, Cristian POSTOLACHE, Viorel FUGARU (Horia Hulubei National Institute for Physics and Nuclear Engineering, 30, Reactorului St., Magurele, Ilfov, Romania).

15.⁵⁰ - 16.¹⁰

S4.2.5 *Zirconia Compounds Coatings on C Substrates: Combinatorial EB-PVD Deposition and Thermal Characterisation*, Radu-Robert PITICESCU¹, Victor MANOLIU², Alexandru MIHAILESCU³, Arcadii SOBETKII¹, Gheorghe IONESCU², Adrian Mihail MOTOC¹ (¹National R&D Institute for Nonferrous and Rare Metals, 102 Biruintei Blvd, Pantelimon 077145, Romania; ²AEROSPACE Consulting, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania; ³INCAS – National Institute for Aerospace Research “Elie Carafoli”, Materials Unit, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

16.¹⁰ - 16.⁴⁰

Coffee Break

16.⁴⁰ - 17.⁰⁰

S4.2.6 *Harness/Container Equipment for Parachutes with Variable Volume*, Claudia NICULESCU, Adrian SALISTEAN, Georgeta POPESCU (National R&D Institute for Textile and Leather Bucharest (INCDTP), 16 Lucretiu Patrascanu, 030508 Bucharest, Romania).

Wednesday 26.10.2016 – “Conference room”, et. 2, corp B

Section 6 – Experimental Investigations in Aerospace Sciences

Wednesday 26.10.2016. Afternoon session

S3.2 **Co-Chairman:**

Cristian POSTOLACHE

Ioan URSU

17.⁰⁰ - 17.²⁰

S6.2.1 **Radiobiology Experiment Design and Modeling for Space Applications at ELI-NP**, Mariana BOBEICA¹, Sohichiroh AOGAKI¹, Theodor ASAVEI¹, Mihail CERNAIANU¹, Petru GHENUCE¹, Florin NEGOITA¹, Dan STUTMAN^{1,2} (¹“Horia Hulubei” National Institute for Physics and Nuclear Engineering, Extreme Light Infrastructure Nuclear Physics ELI-NP, 30 Reactorului Street, RO-077125, Bucharest-Magurele, Romania; ²Johns Hopkins University, 3400 N Charles St., Baltimore, Maryland 21218, USA).

17.²⁰ - 17.⁴⁰

S6.2.2 **Redox Biology in Space Missions - Towards New Molecular Targets for Radioprotection**, Gina MANDA¹, Ionela Victoria NEAGOE¹, Cristian POSTOLACHE², Mariana BOBEICA³ (¹“Victor Babes” National institute of Pathology, Bucharest, Romania; ²“Horia Hulubei” National Institute for R&D in Physics and Nuclear Engineering, Magurele, Romania; ³ELI-NP, “Horia Hulubei” National Institute for Physics and Nuclear Engineering, Magurele, Romania).

17.⁴⁰ - 18.⁰⁰

S6.2.3 **Characterization of Gamma Radiation Fields Emitted by 60-CO Sources Inside of Multifunctional Interaction Chamber**, Cristian POSTOLACHE, Viorel FUGARU, Sorin BERCEA, Aurelia CELAREL, Constantin CENUSA, Daniel NEGUT (Horia Hulubei National Institute for Physics and Nuclear Engineering, 30, Reactorului St., Magurele, Ilfov, Romania).

18.⁰⁰ - 18.²⁰

S6.2.4 **Introduction to Zero Point Energy Sample Calculations With Case Studies for Prolific Applications**, Alexandru IONEL, Tiberiu SALAORU, Mihaela NASTASE (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

18.²⁰ - 18.⁴⁰ Q & A

19.⁰⁰ GALA DINNER

Thursday 27.10.2016 – “ELIE CARAFOLI” Amphitheatre

8.³⁰ - 9.⁰⁰ **REGISTRATION**
Coffee Break

9.⁰⁰ - 10.⁰⁰ The “Nicolae Tîpei” Prize Award Ceremony

PLENARY SESSIONS

PL **Co-Chairman:**

Catalin NAE
Sorin RADNEF

10.⁰⁰ - 10.³⁰

PL 7 **Ruxandra Mihaela BOTEZ** (ETS, University of Quebec, Laboratory of Applied Research in Active Controls, Avionics and AeroServoElasticity LARCASE, www.larcase.etsmtl.ca, 1100 Notre Dame West, Montreal, Canada), *New Methodologies for Missed Approach Computing in Terms of Fuel Consumption and Emissions for a Boeing B-737-400.*

10.³⁰ - 11.⁰⁰

PL 8 **Adi ADUMITROAIE** (Institute for Constructional Lightweight Design, JOHANNES KEPLER, UNIVERSITY LINZ, Altenberger Straße 69, Science Park I, MT0220, 4040 Linz, Austria), *Synergy between Safety Concepts and Damage Tolerance Capabilities of FRP Composite Structures.*

11.⁰⁰ - 11.²⁰

Coffee Break

11.²⁰ - 11.⁵⁰

PL 9 **Virgil STANCIU** (“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Gh. Polizu Street 1-5, 011061, Bucharest, Romania), *Design, the Way to Aerospace Metaengineering.*

11.⁵⁰ - 12.²⁰

PL 10 **Yassir ABBAS** (Aeronautical Engineering Department, Engineering College, Karary University, Khartoum, Sudan), *Aerodynamic of Damaged Aircraft.*

Thursday 27.10.2016 – “ELIE CARAFOLI” Amphitheatre

Section 1 – Aerodynamics

Thursday 27.10.2016. Morning session

S1.1 Co-Chairman:

Ruxandra Mihaela BOTEZ
Virgil STANCIU

12.²⁰ - 12.⁴⁰

S1.1.7 Holistic Treatment of Double Flow Turbofan Performance Using Harmonic Hyperbolic Law, Virgil STANCIU, Cristina PAVEL (“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Gh. Polizu Street 1-5, 011061, Bucharest, Romania).

12.⁴⁰ - 13.⁰⁰

S1.1.8 The Development of a Reduced Order Model for The Aeroelastic Analysis of a Test Wing Used for Wind-Tunnel Aeroelastic Experiments, Marius STOIA-DJESKA (“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Gh. Polizu Street 1-5, 011061, Bucharest, Romania).

13.⁰⁰ - 14.⁰⁰

Lunch

Thursday 27.10.2016 – “ELIE CARAFOLI” Amphitheatre

Section 1 – Aerodynamics

Thursday 27.10.2016. Afternoon session

S1.2 Co-Chairman:

Doru SAFTA
Valentin Adrian Jean BUTOESCU

14.⁰⁰ - 14.²⁰

S1.2.9 Evaluation of the Cmark Panel Method Software for the Solution of Flow Around Airfoils, Yassir ABBAS^{*1}, Ahmed ABBAS², Qussay ALSANOSI² (¹Aeronautical Engineering Department, Engineering College, Karary University, Khartoum, Sudan; ²Aeronautical Research Centre, Khartoum, Sudan).

14.²⁰ - 14.⁴⁰

S1.2.10 Study on the aerodynamic forces acting on a passenger train consisting of two railcars Siemens Desiro, Sorin ARSENE*, Ioan SEBESAN "POLITEHNICA" University of Bucharest, Transport Faculty, Depart Rolling Stock Railway, Splaiul Independentei no. 313, Sector 6, 060042, Bucharest, Romania).

14.⁴⁰ - 15.⁰⁰

S1.2.11 Influence of the Rigid Wind Tunnel Walls on a Harmonically Oscillating Wing, Valentin Adrian Jean BUTOESCU (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

15.⁰⁰ - 15.²⁰

S1.2.12 Towards The Effects of Initial Grain Temperatures and Erosive Burning on Homogeneous Solid Propellant Combustion, Doru SAFTA¹, Ioan ION² (¹MTA - Military Technical Academy, B-dul George Cosbuc 81-83, Bucharest 050141, Romania; ²University “Eftimie Murgu”, Piata Traian Vuia 1-4, Resita 320085, Romania).

15.²⁰ - 15.⁴⁰

SI.2.13 QUASI-3D 1D Quasi-Steady Flow Solid Rocket Motor Grain Burnback Analysis, Alexandru IONEL, Mihaela NASTASE (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

15.⁴⁰ - 16.⁰⁰

Coffee Break

SI.2 Co-Chairman:

Valentin Adrian Jean BUTOESCU
Marius Gabriel COJOCARU

16.⁰⁰ - 16.²⁰

SI.2.14 Hypersonic Aerodynamics for Several Test Cases, Mihai Leonida NICULESCU, Maria Cristina FADGYAS, Marius Gabriel COJOCARU, Mihai Victor PRICOP, Dumitru PEPELEA, Mihaita Gilbert STOICAN INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania.

16.²⁰ - 16.⁴⁰

SI.2.15 Simulation Tool for Predicting Ground Test Performance of a Turbofan Propulsion System Air Inlet, Andreea CERNAT, Alexandru IONEL, Irina-Carmen ANDREI, Stefan PALAS, Adrian MIHAI, Tiberiu SALAORU (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

16.⁴⁰ - 17.⁰⁰

SI.2.16 2D 0-D Unsteady Flow Numerical Modelling of Solid Rocket Motor Grain Burnback of Complex Propellant Geometries, Mihaela NASTASE, Alexandru IONEL (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

18.⁰⁰ *CLOSING SESSIONS*

Thursday 27.10.2016 – “Nicolae TIPEI” Amphitheatre

Section 5 – Systems, Subsystems and Control in Aeronautics

Thursday 27.10.2016. Morning session

S5.1 Co-Chairman:

Stefan BOGOS
Grigore CICAN

12.²⁰ - 12.⁴⁰

S5.1.1 *Optimizing Ion Propulsion Systems Depending on the Nature of the Propellant*, Grigore CICAN¹, Ionut-Florian POPA² (1^{“POLITEHNICA”} University of Bucharest, Faculty of Aerospace Engineering, Gh. Polizu Street 1-5, 011061, Bucharest, Romania; 2National Research and Development Institute for Gas Turbines COMOTI, 220 D Iuliu Maniu, Bd., sector 6, cod 061126, OP76, CP174, Bucharest, Romania).

12.⁴⁰ - 13.⁰⁰

S5.1.2 *A Brief Discussion Regarding Types of Cavitation in Squeeze Film Dampers and Cavitation’s Effects*, Laurentiu MORARU (“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Gh. Polizu Street 1-5, 011061, Bucharest, Romania).

13.⁰⁰ - 14.⁰⁰

Lunch

Thursday 27.10.2016 – “Nicolae TIPEI” Amphitheatre

Section 5 – Systems, Subsystems and Control in Aeronautics

Thursday 27.10.2016. Afternoon session

S5.2 Co-Chairman:

Laurentiu MORARU
Jeni Alina POPESCU

14.⁰⁰ - 14.²⁰

S5.2.3 *On \mathcal{H}_∞ Control and its UAV Applications*, Elfatih G. HAMDI*, Gamal M. Sayed EL-BAYOUMI, Ayman H. M. KASEM (Aeronautical Engineering Department, Engineering College, Cairo University, Giza State, Egypt).

14.²⁰ - 14.⁴⁰

S5.2.4 *Performance Estimation on Micro Gas Turbine Plant Recuperator*, Laura Alina STIKA, Jeni Alina POPESCU, Sorin Gabriel TOMESCU, Valeriu-Alexandru VILAG (Romanian Research and Development Institute for Gas Turbines COMOTI, web page: <http://www.comoti.ro>).

14.⁴⁰ - 15.⁰⁰

S5.2.5 *Longitudinal automatic control system for a light weight aircraft*, Cristian VIDAN*, Silviu Ionut BADEA (Military Technical Academy, Faculty of Mechatronics and Integrated Armament Systems, M2 Department of Aircraft Integrated Systems and Mechanics, 39-49 George Coşbuc Avenue, Sector 5, Bucharest 050141, Romania).

15.⁰⁰ - 15.²⁰

S5.2.6 *Software Generated Fuel Consumption Profile for a Light Attack and Jet Trainer Mission*, Adrian MIHAL, Alexandru IONEL, Tiberiu SALAORU, Stefan PALAS, Radu BOGATEANU, Manuela CALCEA, Viorica ILINOIU (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

15.²⁰ - 15.⁴⁰

S5.2.7 *Modelling of Selected Performance Criteria in Developing a VTVL Liquid Propulsion System*, Irina-Carmen ANDREI, Alexandru IONEL, Stefan PALAS (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

15.⁴⁰ - 16.⁰⁰

Coffee Break

S5.2 **Co-Chairman:**

Jeni Alina POPESCU
Laurentiu MORARU

16.⁰⁰ - 16.²⁰

S5.2.8 *Numerical Modelling Application for Simulating Engine Test Cell Validation Methodology of a Turbofan Exhaust System*, Irina-Carmen ANDREI, Alexandru IONEL, Adrian MIHAI, Stefan PALAS, Tiberiu SALAORU (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

Thursday 27.10.2016 – “Nicolae TIPEI” Amphitheatre

Section 7 – ATS and full Automation ATM

Thursday 27.10.2016. Afternoon session

S7.2 **Co-Chairman:**

Simion TATARU
Mihai Leonida NICULESCU

16.²⁰ - 16.⁴⁰

S7.2.1 *Automation and Systems Issues in Air Traffic Control*, Gabriela STROE¹, Irina-Carmen ANDREI² (1“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Polizu Street 1-7, postal code 011061, sector 1, Bucharest; 2INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

16.⁴⁰ - 17.⁰⁰

S7.2.2 *Automated Conflict Resolution in Air Traffic Management*, Gabriela STROE¹, Irina-Carmen ANDREI² (1“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Polizu Street 1-7, postal code 011061, sector 1, Bucharest; 2INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

18.⁰⁰ **CLOSING SESSIONS**

Thursday 27.10.2016– “Conference room”, et. 2, corp B

Section 4 – Materials and Structure

Thursday 27.10.2016. Morning session

S4.1 Co-Chairman:

Adriana STEFAN
Viorel ANGHEL

12.²⁰ - 12.⁴⁰

S4.1.7 *On The Buckling Analysis of a Cold Formed Steel Profile Arch Structure*, Viorel ANGHEL, Stefan SOROHAN, Ioan STOICA (“POLITEHNICA” University of Bucharest, Strength of Materials Department, Splaiul Independentei no. 313, Sector 6, Code 060042, Bucharest, Romania).

12.⁴⁰ - 13.⁰⁰

S4.1.8 *The oxidation behavior of classical thermal barrier coatings exposed to extreme temperature*, Alina DRAGOMIRESCU*¹, Adriana STEFAN¹, Victor MANOLIU², Alexandru MIHAILESCU¹, Gheorghe IONESCU², Mihail BOTAN¹ (¹INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania; ²AEROSPACE Consulting, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

13.⁰⁰ - 14.⁰⁰

Lunch

Thursday 27.10.2016– “Conference room”, et. 2, corp B

Section 4 – Materials and Structure

Thursday 27.10.2016. Afternoon session

S4.2 Co-Chairman:

Radu-Robert PITICESCU
Victor MANOLIU
Ioan URSU

14.⁰⁰ - 14.²⁰

S4.2.9 *Rocket Solid Propellant Alternative Based on Ammonium Dinitramide*, Grigore CICAN, Alexandru-Daniel MITRACHE (“POLITEHNICA” University of Bucharest, Faculty of Aerospace Engineering, Gh. Polizu Street 1-5, 011061, Bucharest, Romania).

14.²⁰ - 14.⁴⁰

S4.2.10 *Advanced Ceramic Coatings in Aeronautics*, Victor MANOLIU¹, Gheorghe IONESCU¹, Mihail BOTAN², Adriana STEFAN², Alina DRAGOMIRESCU*², Alexandru MIHAILESCU² (¹AEROSPACE Consulting, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania; ²INCAS – National Institute for Aerospace Research “Elie Carafoli”, Materials Unit, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

14.⁴⁰ - 15.⁰⁰

S4.2.11 *VTVL concept optimisation of the landing gear*, Camelia Elena MUNTEANU, Alexandru-Mihai CISMILIANU (INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

15.⁰⁰ - 15.²⁰

S4.2.12 *Mechanical Tests and Model Finite Element Analysis for Ablative Phenolic Composites Nanofilled with Silicon Carbide*, George PELIN^{1,2}, Camelia MUNTEANU¹, Cristina-Elisabeta PELIN¹, Adriana STEFAN¹ (¹INCAS – National Institute for Aerospace Research “Elie Carafoli”, Materials Unit, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania; ²“POLITEHNICA” University of Bucharest, Faculty of Applied Chemistry and Materials Science, 1-7 Gh. Polizu St, 011061, Bucharest, Romania).

15.²⁰ - 15.⁴⁰

S4.2.13 *Bird strike damage assessment in the case of an aircraft tailplane*, Cătălin PÎRVU, Corina Elena BOȘCOIANU, Mihai Victor PRICOP (INCAS – National Institute for Aerospace Research “Elie Carafoli”, Materials Unit, B-dul Iuliu Maniu 220, Sector 6, Bucharest 061126, Romania).

15.⁴⁰ - 16.⁰⁰

Coffee Break

Thursday 27.10.2016– “Conference room”, et. 2, corp B

Section 8 – Management in Aerospace Activities

Thursday 27.10.2016. Afternoon session

S8.2 **Co-Chairman:**

Claudia DOBRE
Mircea BOSCOIANU
Aurelian Virgil BALUTA
Casandra Venera BALAN

16.⁰⁰ - 16.²⁰

S8.2.1 *The Mix of Laws Involved in The Activity of the Companies in the Aerospace Field*, Aurelian Virgil BALUTA (“Spiru Haret” University, 13 Ion Ghica Str., District 3, Bucharest, 030045).

16.²⁰ - 16.⁴⁰

S8.2.2 *Communications Principles for Team/ Group Performance in Aerospace Field of Activities*, Aurelian Virgil BALUTA¹, Gabriela IOSIF² (¹“Spiru Haret” University, 13 Ion Ghica Str., District 3, Bucharest, 030045; ²National Institute for R & D in Electrical Engineering ICPE-CA, Splaiul Unirii, Nr. 313, Sector 3, 030138, Bucuresti, Romania).

16.⁴⁰ - 17.⁰⁰

S8.2.3 *Identification of Gaps and Bottlenecks to Innovation in the European Aeronautics Research Landscape*, Claudia DOBRE^{1,2} (¹INCAS – National Institute for Aerospace Research “Elie Carafoli”, B-dul Iuliu Maniu 220, Bucharest 061126, Romania; ²Bucharest University of Economic Studies, ASE, Piata Romana 6, Bucharest 010374, Romania).

17.⁰⁰ - 17.²⁰

S8.2.4 *Weather related general aviation accidents in Europe from a pilot’s point of view*, Vlad MARAZAN (Aircraft Owners and Pilots Association of Romania).

17.²⁰ - 17.⁴⁰

S8.2.5 *Limitations of systemic accident analysis methods*, Casandra Venera BALAN (PIETREANU)*, Valentin-Marian IORDACHE (“POLITEHNICA” University of Bucharest, Aerospace Engineering Department, Polizu Street 1-7, sector 1, Bucharest 011061, Romania).

17.⁴⁰ - 18.⁰⁰

S8.2.6 *The Safety Management System of the Nigerian Aerospace. Corporate Safety Commitment*, Taofik OLAYIWOLA*, Adim Kingsley OBUH (Concord Hangar Limited, Concord Terminal Building, Murtala Muhammed Airport, Lagos, Nigeria).

18.⁰⁰ **CLOSING SESSIONS**