



8thInternational Workshop on Numerical Modelling in Aerospace Sciences

NMAS 2022

25 - 26 May 2022, Bucharest, Romania

“Hybrid Workshop”

PROGRAM

Wednesday 25.05.2022

9. ²⁰ –10. ⁰⁰	Registration of participants	
Time (CET)	“ELIE CARAFOLI” Amphitheatre (Click to join the Virtual Meeting)	
10. ⁰⁰ –10. ²⁰	<p>Welcome and introduction by the Workshop Chairman</p> <p>Dr. Eng. Catalin NAE, President & CEO, INCAS – National Institute for Aerospace Research “Elie Carafoli”, Bucharest, Romania</p> <p>Dr. Eng. Fiz. Mihail-Liviu COSEREANU, Scientific director, INCAS – National Institute for Aerospace Research “Elie Carafoli”, Bucharest, Romania</p> <p>Dr. Eng. Daniel-Eugeniu CRUNTEANU, Assoc. professor C.D.E. Dean of Faculty of Aerospace Engineering, “POLITEHNICA” University of Bucharest, Romania</p> <p>Dr. Fiz. Adriana STEFAN, President of the Scientific Council of the INCAS – National Institute for Aerospace Research “Elie Carafoli”, Bucharest, Romania</p> <p>Dr. Fiz. Florin MINGIREANU, Romanian Space Agency (ROSA)</p>	
Keynote Speakers 10. ²⁰ –11. ⁴⁰	Co-Chairman: Florin MINGIREANU (ROSA), Daniel-Eugeniu CRUNTEANU (UPB)	
10. ²⁰ –11. ⁰⁰	QIAN Zhansen* , LENG Yan, WANG Di	<i>Progress and applications of ARI_Boom software for sonic boom prediction</i>
	*Phd eng. Research Professor, AVIC Aerodynamics Research Institut, Shenyang, China	
11. ⁰⁰ –11. ⁴⁰	Iulian Constantin COROPEȚCHI , Alexandru VASILE, Dan Mihai CONSTANTINESCU* , Catalin R. PICU, Ștefan SOROHAN	<i>Microstructural Design of Two-Phase Composites by using Finite Element Analyses with Greedy and Simulate Annealing Algorithms</i>
	*Professor, Corresponding Member of the Technical Sciences Academy of Romania, Head of Department, Head of Laboratory for Modelling and Simulation of Behaviour and Damage of Materials	
Session 11. ⁴⁰ –12. ⁰⁰	Co-Chairman: Florin MINGIREANU (ROSA), Daniel-Eugeniu CRUNTEANU (UPB)	
11. ⁴⁰ –12. ⁰⁰	Nicolae-Florin ZĂGĂNESCU , Rodica ZĂGĂNESCU, Constantin-Marcian GHEORGHE	<i>Wernher Von Braun’s Pioneering Work in Modelling and Testing Liquid Propellants Rockets</i>
12. ¹⁰ –13. ²⁰	Lunch	
Time (CET)	“ELIE CARAFOLI” Amphitheatre (Click to join the Virtual Meeting)	
Session 13. ³⁰ –16. ⁴⁰	Co-Chairman: Mihai-Victor PRICOP (INCAS), Daniel-Eugeniu CRUNTEANU (UPB), Florin MINGIREANU (ROSA)	
13. ³⁰ –13. ⁴⁵	Laurentiu MORARU* , Marius STOIA-DJESKA	<i>Notes Regarding the Loads Induced by Gusts on Airplane Structures</i>
13. ⁴⁵ –14. ⁰⁰	Ana-Maria NECULĂESCU* , Tudorel-Petronel AFILIPOAE, Adrian TOADER	<i>Demonstrator for Technologies Validation (DTV) free-flights result</i>

WORKSHOP PROGRAM

14. ⁰⁰ –14. ¹⁵	Mihai-Victor PRICOP* Mihăiță-Gilbert STOICAN, Dumitru PEPELEA	<i>Supersonic-hypersonic ramp-lip intakes optimization in calorically and thermally perfect gas</i>
14. ¹⁵ –14. ³⁰	Mircea BOCIOAGA* , Cesar BANU, Laurentiu-Nicolae FIRTAT	<i>Spring-in simulation of a large scale demonstrator CFRP wing box</i>
14. ³⁰ –14. ⁴⁵	Răzvan-Ionuț BĂLAȘA* , Marian-Ciprian BÎLU, Alina-Ioana CHIRA, Cătălin IORDACHE, Cătălin Sever MOISOIU, Camelia MUNTEANU	<i>Design and Analysis of a Flight Simulator based on a Robotic Motion Platform</i>
14. ⁴⁵ –15. ⁰⁰	Ionuț BUNESCU* , Mihai-Vladuț HOTHAZIE, Mihai-Victor PRICOP	<i>Aerodynamic Optimization of Subsonic Aircraft Configuration</i>
15. ⁰⁰ –15. ¹⁵	Mihai-Vladut HOTHAZIE* , Ionuț BUNESCU, Laurentiu PADUREANU	<i>Parametric study of the effect of passive vortex generators on wing aerodynamic performance</i>
15. ¹⁵ –15. ³⁰	Marius Alexandru PANAIT	<i>Neural Reflex Networks for Automating Quadcopter Drone Obstacle Avoidance</i>
15. ³⁰ –15. ⁴⁵	Bogdan Adrian NICOLIN* , Ilie NICOLIN	<i>Military aircraft: LED lights for high-speed take-offs, landing, and taxi</i>
15. ⁴⁵ –16. ⁰⁰	Răzvan-Ionuț BĂLAȘA, Marian-Ciprian BÎLU, Alina-Ioana CHIRA, Cătălin IORDACHE*	<i>Workspace Optimization of a Flight Simulator based on a Robotic Motion Platform</i>
16. ⁰⁰ –16. ¹⁵	Cătălin Constantin CHELMUȘ* , Trifu Marius CONSTANTIN, Andrei Mădălin GRIGORE, Robert Mihai IONIȚĂ, Andrei Cristian MANDOC, Constantin Romica STOICA	<i>2Space team rocket design and analysis for EuRoC competition</i>
16. ¹⁵ –16. ³⁰	Andrei NENCIU* , Alexandra Raluca PETRE, Alexandru Mihai CISMILIANU, Camelia-Elena MUNTEANU ¹	<i>VTVL Engine Attachment Structural Optimization</i>
16. ³⁰ –16. ⁴⁰	CLOSING CEREMONY	

Wednesday 25.05.2022

Time (CET)	“Conference Room - Materials and Tribology UNIT”	
<p>➤ Event associated with of the workshop</p> <p style="color: #0070c0; font-weight: bold;">European Project Semester - Student Session</p>		
13. ³⁰ –13. ⁵⁰	Welcome speech Adriana STEFAN (INCAS), Mihail BOTAN (INCAS)	
Session 13. ⁵⁰ –15. ⁰⁰	Co-chairman: Dan Mihai CONSTANTINESCU*, Nicoleta CRISAN** <i>*Professor, Corresponding Member of the Technical Sciences Academy of Romania, Head of Department, Head of Laboratory for Modelling and Simulation of Behaviour and Damage of Materials, Department of Strength of Materials, University POLITEHNICA of Bucharest, Romania</i> <i>**S.L.Dr.Eng. Strength of Materials Department, Faculty of Industrial Engineering and Robotics, University POLITEHNICA of Bucharest, Romania</i>	
13. ⁵⁰ –14. ²⁰	Tibor van Stapele, Robin Gourret, Dina Ion-Alexandru, Aya Elmoussaw, Youness ELLAKIB, Mihail BOTAN	<i>Unmanned Aerial System with endurance light structures for special missions' operation</i>
14. ²⁰ –14. ⁵⁰	AGRICHE Soufiane, BARBEYRON Clément, ENCICA Sergiu, HMITOU Ayoub, UPHAUS Johannes, Mihail BOTAN	<i>Additive manufacturing and coatings by direct energy deposition for aerospace application</i>
14. ⁵⁰ –15. ⁰⁰	CLOSING CEREMONY	