



**“INTELLIGENT TRANSPORT SYSTEMS 2012 (ITS’12)”**

## **Scientific Program**

**Oral and Poster Presentations**

**July 18- 20, 2012**

**Riga, Latvia**

***Conference Chair***

**Prof., Dr.hab.sc.ing. Aleksandrs Urbahs**

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**Institute of Aeronautics**

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*ieguldījums Tavā nākotnē!*

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# Oral Presentations

Day 2	Thursday, 19 July 2012
<b>Session II: Aeronautics and Transport Systems</b> Chair: Dr.hab.sc.ing. Aleksandrs Urbahs (Riga Technical University, Latvia)	
10:00 – 10:15	The experience of the German company "Agentur Kronstadt GmbH" establishing a European scientific and industrial consortium under the project "ESTOLAS" <b>V. Papkov (Germany)</b>
10:15 – 10:30	Experience in design, manufacture and operation of micro-class unmanned aerial vehicles <b>A.Urbahs, V.Petrovs, A.Jakovļevs, K.Savkovs, V.Bulanovs (Latvia)</b>
10:30 – 10:45	Analysis of the main designing and manufacturing tasks of extremely short take-off and landing all-surface (ESTOLAS) hybrid aircraft <b>A.Urbahs, V.Petrovs, A.Jakovļevs, K.Savkovs, V.Bulanovs, K.Carjova (Latvia)</b>
10:45 – 11:15	<b>Coffee Break</b>
11:15 – 11:30	Alternative fuels for aviation - LOG and LNG <b>O.Antoshkiv (Germany)</b>
11:30 – 11:45	Nanostructured ion plasma coatings for gas turbine engine parts <b>A.Urbahs, K.Savkovs, M.Urbaha (Latvia)</b>
11:45 – 12:00	Assessment of extremely short take-off and landing all-surface (ESTOLAS) hybrid aircraft exploitation at typical European aerodromes <b>A.Urbahs, V.Petrovs, M.Urbaha (Latvia)</b>
12:00 – 12:15	Diagnosis and resource tests of aviation technique using acoustic emission method <b>A. Urbahs, M. Banovs, V.Turko, K.Carjova (Latvia)</b>
12:15 – 12:30	<b>Coffee Break</b>
12:30 – 12:45	Study of aerodynamic characteristics of non-standard aircrafts: main objectives <b>A.Urbahs, D.Titovs, V.Petrovs, M.Urbaha (Latvia)</b>

12:45 – 13:00	Analysis of main Remotely Operated Vehicle construction principles <b>A.Urbahs, K.Carjova, I.Stelpa, P.Vulans, M.Urbans (Latvia)</b>
13:00 – 13:15	MinMax approach for aircraft inspection program interval selection in order to ensure airline safety <b>M.Hauka, Y. Paramonovs (Latvia)</b>
13:15 – 13:30	Determination of a composite material strength reduction zone in a lightning arc strike zone <b>J.Serebrjakova, P. Serebrjakovs (Latvia)</b>
13:30 – 13:45	Analysis of Unmanned Air Vehicle use for ice monitoring in Baltic sea and Riga bay <b>A. Urbahs, I. Lešinskis, J. Bērziņš, A.Pavlovičs (Latvia)</b>
13:45 – 14:00	Diagnostics of aircraft elevator's skin zones after the impact of lightning using the method of acoustic emission <b>A.Urbahs, M.Banov, S.Bratarchuk, N.Khodos, P.Serebrjakovs, V. Turko (Latvia)</b>
14:00 – 15:30	<b>Lunch</b>
15:30 – 17:00	<b>Poster Session and Discussions</b>

## Poster Presentations

Day 2	Thursday, 19 July 2012
Analysis of spinnaker use on merchant vessels <b>G.Šteinerts, I.Stelpa (Latvia)</b>	
Analysis of Maritime Spatial Planning efficiency on the western coast of Latvia <b>M.Nagaina (Latvia)</b>	
Ion-plasmas sputtering method "KJONBOMU" for formation of nanostructural wear resistant coatings for machine friction parts <b>M.Urbaha, K.Savkovs, J.Urbaha (Latvia)</b>	
Ship's hull underwater part monitoring problem analysis <b>K.Carjova, V.Zavtkevichs, I.Stelpa, D.Andrejeva, R.Straume (Latvia)</b>	
Adoption of automatic collision avoidance system on merchant vessels <b>A.Rivošs, D.Andrejeva (Latvia)</b>	
Faults of common-rail system in diesel engines and possibilities of non-invasive diagnostics <b>I.Kurjanovičs, A.Zalāns, A. Kokorevs (Latvia)</b>	
Interference of mechanical vibrations to vessel main engine bearings <b>J.Kokars (Latvia)</b>	

**Analysis of Unmanned Air Vehicle use for ice monitoring in Baltic sea and Riga bay**

**A. Urbahs, I. Lešinskis, J. Bērziņš, A.Pavlovičs (Latvia)**

**Vertical Electromagnetic Conveyor for Transportation of Ferromagnetic Materials**

**V. Lapkovskis, V. Mironovs (Latvia)**

**Automatization and throughput capacity increasing of cargo terminal Mangali**

**V.Feofanovs, N.Tarancova (Latvia)**

**Investigation of decorative corrosion resistant coatings on Ti-Al-N basis properties**

**S.Bogdanova, K.Savkovs, M.Urbaha (Latvia)**