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**SPACE'2010  
International Seminar  
"ADVANCED DEVICES, MATERIALS AND RESEARCH METHODS  
FOR SPACE APPLICATION"  
5-7 October 2010  
Prague, Czech Republic**

**PROGRAM OF THE SEMINAR**

**TUESDAY, 5 October 2010**

*Arrival and accommodation of SPACE 2010 participants*

**WEDNESDAY, 6 October 2010**

<b>8:00 -9:30</b>	<b>Registration of participants</b>
<b>9:30 -10:00</b>	<b>Seminar Opening</b>
<b>10:00 – 12:00</b>	<b>"Exordium" Session</b>
	ISTC and the Development of International Cooperation in Aerospace <b>Tatiana Ryzhova (ISTC, Russia)</b>
	Brno University of Technology: Space activities of research establishments and academia in Czech Republic <b>Jiri Hlinka (Brno University of Technology, Czech Republic)</b>
<b>10:40 – 11:00</b>	<b>Coffee break</b>
	Research activities of the VZLU Aerospace Research Centre <b>Viktor Fedosov (VZLU, Czech Republic)</b>
	The automated system for estimation of functional conditions and professional working capacity of critical infrastructures operators. <b>Olga Zhuravleva (The Federal State Unitary Enterprise Research-and-production association "Impulse", Russia)</b>
	Innovational and scientific aspects of science experiment: on the example of the complex TDEM sounding on the Earth's Moon <b>Yury Ozorovich (Space Research Institute, Russian Academy of Sciences, Russia)</b>
<b>12:00 -13:00</b>	<b>Earth observation</b>
	International cooperation in Earth observation from space <b>Leonid Vedeshin (Russian Academy of Science, Russia)</b>
	The Czech space activities in ESA Earth Observation programmes <b>Josef Sobra (Czech Space Office, Czech Republic)</b>
	Remote sensing center at a university for real-time acquisition of high resolution optical and radar imagery <b>Oganes Targulyan (R&amp;D Center SCANEX, Russia)</b>

<b>13:00 -14:30</b>	<b>Lunch</b>
<b>14:30 – 17:50</b>	<b>Space Systems, Platforms and Structures</b>
	Reusable Aerospace Systems of Horizontal launch and landing. Problems and prospects. <i>Alexander Milovanov (ROSCOSMOS, Russia)</i>
	Frameless centrifugal solar batteries for space power stations in a problem of an energy crisis and weather stabilisation <i>Alexander Milovanov (ROSCOSMOS, Russia)</i>
	Czech independent access to space <i>Simon Kavan (Czech Space Office, Czech Republic)</i>
	HTHL space launch vehicles: concepts, advantages and control problems <i>Alexander Nebylov (International Institute for Advanced Aerospace Technologies of State University of Aerospace Instrumentation, Russia)</i>
<b>16:00 -16:20</b>	<b>Coffee break</b>
	Software Package Development for Simulation of Complex Flexible Space Vehicles <i>Alexander Nebylov (International Institute for Advanced Aerospace Technologies of State University of Aerospace Instrumentation, Russia)</i>
	Simplified Approach to Estimation of Flexible Space Vehicle Parameters <i>Alexander Nebylov (International Institute for Advanced Aerospace Technologies of State University of Aerospace Instrumentation, Russia)</i>
	Mimosa Satellite <i>Radek Peresty (VZLU, Czech Republic)</i>
	Dynamic behavior of Locking Mechanism of Microaccelometer <i>Karel Patočka (VZLU, Czech Republic)</i>
<b>19:00 -22:00</b>	<b>Welcome Reception</b>

#### **THURSDAY, 7 October 2010**

<b>10:00 -11:20</b>	<b>Instrumentations for Space Application</b>
	TEASER project <i>Viktor Fedosov (VZLU, Czech Republic)</i>
	Photon counting detectors for laser ranging and laser time transfer missions <i>Ivan Procházka (Czech Technical University in Prague, Czech Republic)</i>
	Active Noise Control in Military, Civil and Space Applications <i>Jaroslav Hovorka (MESIT, Czech Republic)</i>
	Utilization of Global Navigation Satellite System for Position Correction of Inertial Navigation System <i>Luboš Vargovčík (UNIS, Czech Republic)</i>
<b>11:20 – 11:40</b>	<b>Coffee break</b>
<b>11:40-13:00</b>	<b>Materials and Processes</b>
	Promising Metallized Rocket Propellants <i>Igor Assovskiy (Semenov ICP RAS, Russia)</i>
	Rocket motor with regulated thrust for ejection seat <i>Leos Cermak (Explosia plc., Czech Republic)</i>
	Pyrotechnic heaters with nanothermites for space applications <i>Konstantin Monogarov (Semenov ICP RAS, Russia)</i>
	Instrumental complex and methods of physical-mechanical properties of materials in micro-method of kinetic nano-and microindentation <i>Valentin Alekhin (Moscow State Industrial University, Russia)</i>
<b>13:00 -14:30</b>	<b>Lunch</b>
	Self-propagating High-temperature Synthesis Under Microgravity <i>Alexander Ivanov (CNIIMASH, Russia)</i>

	Effect of high gravity on autowave synthesis of cast titanium aluminides <b><i>Dmitriy Andreev (Institute of Structural Macrokinetics and Materials Science, RAS, Russia)</i></b>
	Kinetics of the Thermal and Thermo-Oxidative Degradation of Polyethylene applied to Hybrid Rocket Motors <b><i>Susane Ribeiro Gomes (Instituto Tecnológico de Aeronáutica, Brasil)</i></b>
<b>15:30 -16:00</b>	<b>Seminar Closing</b>