



**V International Technological Forum**  
**"Innovations. Technologies. Manufacturing"**  
 April 16-18, 2018  
 Rybinsk, Yaroslavl Region

Subject	Description
<b>Section "Digital Economy of Knowledge"</b>	
<p><b>Plenary meeting “The Development of Digital Economy of Knowledge”</b></p> <p>The target of the Strategy of information society development in the Russian Federation for 2017 – 2030 approved by RF President in May 2017 is “Establishment of conditions for knowledge society formation in the Russian Federation”.</p> <p>Knowledge economy is becoming a factor of innovation development, it is impossible to imagine modern business without it, it is based on digital foundation powered by emergent approaches to informational technologies, communication, big data management.</p>	<p><b>Moderator:</b></p> <p>Dmitry S. Ivanov, Innovative Development Director, UEC-Saturn PJSC</p> <p>Contact details:            +7 (4855) 292-410  <a href="mailto:dmitry.ivanov@uec-saturn.ru">dmitry.ivanov@uec-saturn.ru</a></p>
<p><b>Demonstration lecture “Investments into human capital assets under conditions of the new industrial revolution”</b></p>	<p><b>Petr G. Schedrovitskiy</b>, President, fund “Development Institute named after G.Schedrovitskiy”, member of the board of the fund “Center of strategic studies North-West”.</p>
<p><b>Accelerator “TechNet”</b></p>	<p>Dmitry S. Ivanov, Innovative Development Director, UEC-Saturn PJSC</p> <p>Контакты модератора / Contact details:            +7 (4855) 292-410  <a href="mailto:dmitry.ivanov@uec-saturn.ru">dmitry.ivanov@uec-saturn.ru</a></p>
<p><b>Foresight-session “Future of advanced digital, intellectual production technologies, robotized systems, new materials and design methods, big data volumes processing systems, computer-assisted teaching and artificial intellect”.</b></p>	<p><b>Moderator:</b> Vladimir N. Knyagin, Vice-President, Center of strategic studies, Chairman of the Management Board of the Center of strategic studies North-West.</p>
<b>Section "Digital Factory"</b>	
<p><b>Artificial Intelligence and Machine Learning</b></p> <p>Artificial intelligence and machine learning help to optimize diverse complex processes in real time and to improve the decision making process in present-day production due to the automation of analysis of large</p>	<p><b>Moderator:</b></p> <p>Pavel G. Bekher, Manager of the Project “Digital Economy”, UEC-Saturn PJSC</p> <p>Contact details:            +7 (4855) 323-812</p>

<p>and complex data sets through adaptive calculation methods with no human involved.</p>	<p><a href="mailto:pavel.bekher@uec-saturn.ru">pavel.bekher@uec-saturn.ru</a></p>
<p><b>Digital Platform of Engine-Building</b></p> <p>Goals and objectives of the development of Russian Digital Economy. Conditions of creating a digital platform in engine-building.</p>	<p><b>Moderator:</b> Vladimir N. Knyagin, Vice-President of the Centre for Strategic Research (CSR).</p>
<p><b>Additive Manufacturing in the Model of Industry 4.0</b></p> <p>Implementation of additive technologies in production - achievements and problems. Peculiarities of designing parts for additive manufacturing. Development, certification, and industrial production of materials for additive manufacturing. Post-processing.</p>	<p><b>Moderators:</b></p> <p>Denis V. Fedoseev, Deputy Chief Engineer, Additive Technologies, Pilot Plant, UEC-Saturn PJSC Contact details: +7 (4855) 326-231 <a href="mailto:denis.fedoseev@uec-saturn.ru">denis.fedoseev@uec-saturn.ru</a></p> <p>Denis S. Podsobliaev, Chief, Additive Technologies, engineering firm AB Universal Contact details: +7 (495) 380-05-15 <a href="mailto:rp@abuniversal.ru">rp@abuniversal.ru</a></p>
<p><b>Digital Design, Modeling, and Integration</b></p> <p>Virtual test bed. Structural design peculiarities in case of additive manufacturing. Discussion of issues related to the numeric modeling of processes in GTE. Acceleration of the modeling of product performance under real operation conditions.</p>	<p><b>Moderator:</b></p> <p>Dmitry I. Zemtsov, Development Pro-rector, Far Eastern federal university Contact details: +7 (919) 994-41-32 (Kseniya Makarova) <a href="mailto:makarova.kan@dvfu.ru">makarova.kan@dvfu.ru</a></p>
<p><b>Predictive Analytics</b></p> <p>Predictive Analytics applies different statistical and analytical methods for the development of mathematical models. These methods predict future events or behavior based on past data. The complexity of such prediction models varies according to behavior or an event foreseen. Predictive Analytics uses a lot of tools and methods such as data mining, machine learning, and artificial intelligence.</p>	<p><b>Moderator:</b></p> <p>Pavel G. Bekher, Manager of the Project “Digital Economy”, UEC-Saturn PJSC Contact details: +7 (4855) 323-812 <a href="mailto:pavel.bekher@uec-saturn.ru">pavel.bekher@uec-saturn.ru</a></p>
<p><b>Digital Twin</b></p> <p>Digital prototypes of physical objects with all object parameters retained. Potential for the use of digital twins in production.</p>	<p><b>Moderator:</b> to be defined.</p>

<p><b>Advanced Materials</b></p> <p>New-generation engineering thermoplastic polymer composites.  Primary components and semi-finished products for thermoplastic polymer composites.  Technologies and equipment for the manufacture and processing of thermoplastic polymer composites.  Assembly, permanent joints and repair of parts made of thermoplastic polymer composites.</p>	<p><b>Moderator:</b></p> <p>Pavel A. Khilov, Project Leader, Composite Materials on Polymer Matrix, UEC-Saturn PJSC;  Contact details:  +7 (4855) 296-756  <a href="mailto:pavel.khilov@uec-saturn.ru">pavel.khilov@uec-saturn.ru</a></p>
<p><b>Section "Smart Factory"</b></p>	
<p><b>Advanced Robotics</b></p> <p>Automation and robotics of manufacturing. Control, safety, operation programming and visualization systems for robotic systems and industrial robots.</p>	<p><b>Moderator:</b> Evgeny Molchanov, Commercial director, LLC RENA SOLUTIONS</p>
<p><b>New Machining Methods</b></p> <p>Special (electro-physical) machining methods for aircraft engine parts. Surface plastic strain hardening technologies, in particular ultrasonic peening, laser hardening, and shot peening. Special technical solutions in metal-working (special tools and tooling used in milling and turning; multi-axis deep grinding, machining with ceramic tools).</p>	<p><b>Moderator:</b></p> <p>Nikolay N. Sokolov, Chief Process Engineer, UEC-Saturn PJSC  Contact details:  +7 (4855) 323-128  <a href="mailto:nikolay.sokolov@uec-saturn.ru">nikolay.sokolov@uec-saturn.ru</a></p>
<p><b>New Repair Technologies</b></p> <p>Need for innovative GTE repair technologies. Development prospects of repair technologies by means of additive technologies. Current high-tech GTE repairs: the level reached, development prospects, new products of development (presentations of repair bases, innovation companies supplying equipment and technologies; research organizations). Technological solutions for on-condition GTE repair.</p>	<p><b>Moderators:</b></p> <p>Andrey V. Smirnov, Deputy Chief Process Engineer, Repair, UEC-Saturn PJSC  Contact details:  +7 (4855) 296-595  +7 (961) 155-04-79  <a href="mailto:andrey.smirnov@uec-saturn.ru">andrey.smirnov@uec-saturn.ru</a></p> <p>Svetlana N. Bardinova, leading processing engineer, UEC-Saturn PJSC  Contact details:  +7 910 811-30-84  <a href="mailto:svetlana.bardinova@uec-saturn.ru">svetlana.bardinova@uec-saturn.ru</a></p>
<p><b>New Technological Solutions in Welding</b></p> <p>Orbital welding technology for tubes made of aluminum alloys. Life extension for cathodes used for electron-beam welding in ELA power units. Assembly of GTE</p>	<p><b>Moderator:</b></p> <p>Aleksey N. Polyakov, Chief Welder, UEC-Saturn PJSC.</p>

<p>parts made of heat-resistant alloys by diffusion welding. Diffusion welding of nickel alloys with material properties retained. Welding quality management. Harmonization of Russian and international standards in welding.</p>	<p>Contact details: +7 (4855) 296-607 +7 961 155-04-79 <a href="mailto:aleksey.polyakov@uec-saturn.ru">aleksey.polyakov@uec-saturn.ru</a></p>
<b>Section "Virtual Factory"</b>	
<p><b>Information Systems of Enterprise Management (ISEM)</b></p> <p>Domestic vs foreign systems. Advantages and disadvantages of domestic systems, development tendencies. Problems of introduction/ support/ application. Mobile solutions for ISEM, practice of their use. Use of open-source systems for ISEM.</p>	<p><b>Moderator:</b></p> <p>Andrey V. Zhidkov, Head of Competence Center for Information Systems, UEC-Saturn PJSC Contact details: +7 (4855) 296-572 <a href="mailto:Andrey.Zhidkov@uec-saturn.ru">Andrey.Zhidkov@uec-saturn.ru</a></p>
<p><b>Integrated Safety and Ubiquitous Digital Trust</b></p> <p>Safety integrated into network infrastructure. Current solutions of integrated safety advantages and disadvantages.</p>	<p><b>Moderator:</b></p> <p>Sergey N. Sivkov, Information Security Department, UEC-Saturn PJSC Contact details: +7 (4855) 296-015 +7 (905) 636-68-13 <a href="mailto:sergey.sivkov@uec-saturn.ru">sergey.sivkov@uec-saturn.ru</a></p>
<p><b>Augmented and Virtual Reality</b></p> <p>Use of Augmented and Virtual Reality technologies and devices at a high-tech enterprise. Impact of Augmented Reality devices on product quality improvement.</p>	<p><b>Moderator:</b></p> <p>Dmitry I. Zemtsov, Development Pro-rector, Far Eastern federal university Contact details: +7 (919) 994-41-32 (Kseniya Makarova) <a href="mailto:makarova.kan@dvfu.ru">makarova.kan@dvfu.ru</a></p>
<p><b>Comfortable Jurisdiction for Advanced Industrial Technologies</b></p> <p>Digital certification. Improvement of institutional conditions in standardization and certification. Ways of eliminating barriers for the use of advanced technological solutions.</p>	
<p><b>Industrial Internet</b></p> <p>Conditions stimulating the development of the Internet of Things, regulatory and legal framework. Uniform standards of the Internet of Things. Assurance of the secure interaction of objects within the Industrial Internet. Capabilities of the safe use of cloud technologies for companies of the defense-industrial sector.</p>	<p><b>Moderator:</b></p> <p>Pavel G. Bekher, Manager of the Project "Digital Economy", UEC-Saturn PJSC Contact details: +7 (4855) 323-812 <a href="mailto:pavel.bekher@uec-saturn.ru">pavel.bekher@uec-saturn.ru</a></p>

<p><b>New Technological Solutions in press forging</b></p> <p>Reverse engineering through the example of manufacturing of external dressing tubes; modern methods of die tooling reinforcement used for isothermal forging and application of progressive materials for the use in die tooling for isothermy.</p>	<p><b>Moderator:</b></p> <p>Nikita V. Rassudov, Chief Forger, UEC-Saturn PJSC.  Contact details:  8 (961) 155-47-65  <a href="mailto:nikita.rassudov@uec-saturn.ru">nikita.rassudov@uec-saturn.ru</a></p>
<p><b>Gas Turbine Engine life cycle reliability management</b></p> <p>Reliability management system (RMS). Methods, means and ways of RMS implementation. Flights safety. Reliability. Technical risks. Operation efficiency. Gas turbine engine life cycle in terms of reliability. Issues of identification, forecasting and evaluation of Gas Turbine Engine life cycle technical risks. Gas Turbine Engine life cycle reliability forecasting and monitoring system. Analysis and forecasting of fail-safe performance of the design at the stage of the engine type certification (implementation of processes FMECA, FMES, FTA, CCA). Models of gas turbine engines fleet operation. Implementation of FRACAS procedure at enterprises. Data base systems for registration of incidents during development and operation of gas turbine engines. Approaches, configuration, decisions making system. Projects management organizing through products reliability parameters management. Gas turbine engines operation support informational systems.</p>	<p><b>Moderator:</b> Sergey V. Sarytchev, Safety&amp;Reliability Expert, UEC-Saturn PJSC.  Contact details:  +7(4855) 296-535  e-mail: <a href="mailto:sergey.sarychev@uec-saturn.ru">sergey.sarychev@uec-saturn.ru</a></p>
<p><b>Section "Human Factory"</b></p>	
<p><b>Risk-Oriented Management of an Organization</b></p> <p>The speakers will come up with information on the up-to-date concept and methodology of risk-oriented management of an organization, share practical experience of using risk management tools when taking management decisions at all levels of organization management.</p>	<p><b>Moderator:</b></p> <p>Sergey A. Grishikhin, Project Manager, UEC-Saturn PJSC.  Contact details:  +7 (4855) 326-165  +7 961 155-81-52  <a href="mailto:sergey.grishikhin@uec-saturn.ru">sergey.grishikhin@uec-saturn.ru</a></p>
<p><b>Human Capital Preparation Strategy for Digital Transformation</b></p> <p>Preparation of requirements for the baseline competencies of digital economy. Human capital preparation strategy within the Russian Digital Economy development program. Comfortable conditions of human capital development so as to counteract labour outflows.  Certification exam C31000 will be held.</p>	<p><b>Moderator:</b></p> <p>Svetlana I. Zhukova, Head of Training Center, UEC-Saturn PJSC  Contact details:  +7 (4855) 292-397  +7 (4855) 210-931  +7 905 635-50-68  <a href="mailto:svetlana.zhukova@uec-saturn.ru">svetlana.zhukova@uec-saturn.ru</a></p>