

PLENARY GUEST SPEAKER



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ABSTRACT

The presentation gives a short overview of the role of the Central Aerohydrodynamic Institute (TsAGI) in the Russian aviation industry. In addition, there is a brief introduction into the Russian strategic plan entitled Foresight which is similar to agendas in the US and Europe (SRA, SRIA). This strategic plan includes the high-level target goals which Russian research organizations seek to achieve. These goals are also in line with similar target goals which our partners from the US and Europe use as a guidance. These goals include but not limited to safety level, noise, CO₂ and NO_x emissions.

The technological section of the strategic plan, described in the presentation, consists of five major parts: The first part reflects new concepts of aircraft design, i.e. future configurations and layouts of aircraft and rotorcraft. The second part describes propulsion systems, such as open rotor or distributed propulsion. The third part provides information on materials and structures. The fourth part describes aviation systems: from avionics and control system to landing gear. The final part focuses on various advanced technologies, like numerical methods, CAD/CAM, flight and ground testing techniques etc., used for aircraft development.

Some examples of promising new aircraft concepts, developed by TsAGI, are also presented. These concepts allow getting closer to goals set for N+1 generation aircraft, which would enter in service in 2020-2025.

BIOGRAPHY OF SPEAKER

Education

- September 1987—March 1996 – system engineer course “Flight Dynamics and Movement of Spacecraft”
- May 1993—April 1996 – postgraduate course, Moscow Aviation Institute MAI

Field of expertise

Flight dynamics, ballistics, aircraft and spacecraft movement control

Professional Experience

- August 2018 – until now - General Director at the Central Aerohydrodynamic Institute TsAGI, Zhukovsky, Moscow region
- October 2015 – August 2018 - First Deputy General Director at the Central Aerohydrodynamic Institute TsAGI, Zhukovsky, Moscow region
- April 2015 – September 2015, First Vice-rector of the Moscow Aviation Institute MAI, Moscow
- October 2012 - March 2015, Head of the Department of Perspective Development at the Central Aerohydrodynamic Institute TsAGI, Zhukovsky, Moscow region
- April 2009 - September 2012, Head of the department of Educational Programme, First Deputy Dean of Robotic and Intelligent Systems faculty at the Moscow Aviation Institute MAI, Moscow
- March 1994 - until now, assistant, head professor, associate professor and leading researcher at Moscow Aviation Institute MAI, Moscow



PLENARY SESSION

Publications

More than 10 articles and monographs

Awards and Titles

- Gran Prix of the Global Education Exhibition 2011
- Laureate of the Prize named after the 25th anniversary of the Moscow Aviation Institute 2010
- Laureate of the Prize for 2013 International Academic Publishing Company "Science/Interperiodica" for the best publication
- Corresponding member of the RAS