



#### NTAD 2018 General chairs

Stanislav Szabo, Technical University of Košice, Slovakia

Vladimír Němec, University of Pardubice, Czech Republic

#### NTAD 2018 Honorary committee

Pavel Czarnecki, Warsaw Management University, Poland

Miroslav Svítek, Czech Technical University in Prague, Czech Republic

Peter Korba, Technical University of Košice, Slovakia

Levente Kovács, Óbuda University, Budapest, Hungary

Kádár Péter, Óbuda University, Budapest, Hungary

#### NTAD 2018 Technical program committee chairs

Ladislav Főző, Technical University of Košice, Slovakia

Rudolf Andoga, Technical University of Košice, Slovakia

#### NTAD 2018 Technical program committee

František Adamčík, Technical University of Košice, Slovakia

Károly Beneda, Budapest University of Technology and Economics, Hungary

Aleš Bernatík, Technical University of Ostrava, Czech Republic

Endre Borbély, Óbuda University, Budapest, Hungary

Róbert Bréda, Technical University of Košice, Slovakia

Martin Bugaj, University of Žilina, Slovakia

Piotr Czech, Silesian University of Technology in Gliwice, Poland

Malgorzata Dobrowolska, Silesian University of Technology in Gliwice, Poland

Zdeněk Dvořák, University of Žilina, Slovakia

Milan Džunda, Technical University of Košice, Slovakia

Andrzej Fellner, Silesian University of Technology in Gliwice, Poland

Beáta Gavurová, Technical University of Košice, Slovakia

Laurian Gherman, Air Force Academy in Braşov, Romania

Peruń Grzegorz, Silesian University of Technology in Gliwice, Poland

György Györök, Óbuda University, Budapest, Hungary

Míchal Hovanec, Technical University of Košice, Slovakia

Juraj Hub, University of Defense in Brno, Czech Republic

Jozef Hudák, Technical University of Košice, Slovakia

Bernadetta Izydorczyk, Jagiellonian University, Krakow, Poland

Rudolf Jalovecký, University of Defense in Brno, Czech Republic

Ploch Jindřich, University of Business in Prague, Czech Republic

Miroslav Kelemen, Matej Bel University, Banská Bystrica, Slovakia

Artūras Keršys, Kaunas University of Technology, Lithuania

Robertas Keršys, Kaunas University of Technology, Lithuania

József Kopják, Óbuda University, Budapest, Hungary

Jarosław Kozuba, Silesian University of Technology in Katowice, Poland

Jakub Kraus, Czech Technical University in Prague, Czech Republic

Srećko Krile, University of Dubrovnik, Croatia

Daniel Kucharek, Polish Air Force Academy in Dęblin, Poland

Jiří Linhart, University of West Bohemia, Czech Republic

Václav Moucha, Technical University of Košice, Slovakia

Benedek Nagy, Eastern Mediterranean University, North Cyprus, Turkey

Pavel Nečas, Matej Bel University, Banská Bystrica, Slovakia

Dušan Neštrák, Technical University of Košice, Slovakia

Andrzej Novák, University of Žilina, Slovakia

Mariola Paruzel - Czachura, Silesian University of Technology in Katowice, Poland

Zdeněk Pátek, National Center for Research, Development and Testing in Aerospace, Czech Republic

Ján PiPa, Technical University of Košice, Slovakia

Antonín Pištěk, Brno University of Technology, Czech Republic

Jiří Pokorný, Technical University of Ostrava, Czech Republic

Jiří Polanský, University of Leeds, United Kingdom

Karol Semrád, Technical University of Košice, Slovakia

Petr Adolf Skřehot, ZUBOZ z.ú., Czech republic

Radovan Soušek, University of Pardubice, Czech Republic

Marta Stasila – Sieradzka, Silesian University of Technology in Katowice, Poland

Márta Takács, Óbuda University, Budapest, Hungary

Árpád Veress, Budapest University of Technology and Economics, Hungary

Norbert Werner, Eötvös Loránd University, Budapest, Hungary

#### NTAD 2018 Organizing committee chairs

Radoslav Šulej, Technical University of Košice, Slovakia

Peter Čekan, Technical University of Košice, Slovakia

Marek Českovíč, Technical University of Košice, Slovakia

#### NTAD 2018 Organizing committee

Štefan Fejedelem, Elfa, Ltd., Slovakia

Martin Schrotter, Technical University of Košice, Slovakia

Katarína Draganová, Technical University of Košice, Slovakia

Lucia Melniková, Technical University of Košice, Slovakia

Jozef Galanda, Technical University of Košice, Slovakia

Edina Jenčová, Technical University of Košice, Slovakia

Stanislav Szabo ml., Technical University of Košice, Slovakia

Peter Hanák, Technical University of Košice, Slovakia

# NTAD 2018

## New Trends in Aviation Development 2018

The XIII. International Scientific Conference  
Košice and The Grand Vig'áš  
30 – 31 August, 2018

#### NTAD 2018 Secretary general

Barbora Kováčová, Technical University of Košice, Slovakia

Jarmila Ferenčíková, Technical University of Košice, Slovakia

Jozef Pavlinský, Technical University of Košice, Slovakia

Zuzana Zgodavová, Technical University of Košice, Slovakia

Eva Endrizalová, University of Pardubice, Czech Republic

#### Topics include but not limited to:

**Avionic systems:** navigation systems, digital aircraft systems, aircraft communication systems, flight and engine control systems, on-board digital systems, electronic instrument systems, aircraft electrical systems, management of on-board systems, progressive avionic systems, human machine interfaces, advanced warning systems

**Aircraft design and construction:** CAD, CAM, CAX, CAE - technologies in aviation, progressive construction technologies, composite materials, advanced simulation methods, constructive design

**Aerodynamics:** computational fluid dynamics, aircraft stability, measurement of aerodynamic characteristics, progressive aerodynamic design and calculations

**Air Traffic Management and Operations:** air traffic control, air traffic flow management, aeronautical information services, piloting the aircraft, air navigation, aviation meteorology, human factor and performance, training and education

**Air Transport Management:** security management, environmental factors, logistic systems, progressive information systems

**Aviation safety:** modeling and simulation of safety systems, technical reliability analysis, virtual simulation technologies, safety legislation, certification process, human factor, safety risks, accidents' analysis

**Aircraft propulsion systems:** gas turbine engines, aviation piston engines, engine control systems, engine diagnostic systems, simulation and modeling, progressive materials in aviation engines, electric propulsion systems

**Sensors:** magnetic sensors, digital measurement equipment, MEMS Technologies, intelligent sensors, aerometric computers, inertial reference systems, analogue sensing techniques, hybrid sensors, sensor networks, sensors modeling

**Unmanned aerial systems:** modeling, control and diagnostics, virtual simulation, navigation, detection of UAV systems, UAV security, anti UAV systems, legislation processes, certification, swarming, propulsion, energy storage, commercial applications, ground control stations

**Airport operations:** airport management, airport economics and logistics, airport security, airport transportation systems, aircraft ground handling management, aircraft ground navigation, surface movement guidance and control systems

**Space systems:** cube-sats, propulsion systems, space navigation, orbital control, communication systems, safety and security of space vehicles, control systems, space applications

#### Submission of Papers

The working language of the conference is **English**. Prospective authors are invited to submit full papers.

#### Paper Acceptance

Each accepted paper has to be presented by one of the authors at the conference and must be accompanied with a registration fee. Accepted papers will be submitted for inclusion into **IEEE-Xplore Database, SCOPUS and WoS**.

<https://ntad.lf.tuke.sk/>

**Full paper submission: July 15, 2018**

**Notification deadline: August 5, 2018**

**Final paper submission: August 19, 2018**

#### General partner:

**LPS SR**

#### Sponsors:

**ALES, s.r.o., TECHNISERV,**

**s.r.o., ERA a.s., JetAge, s.r.o.,**

**TOMARK, s.r.o. BALUS**

**Innovation, s.r.o.**

#### Organizer:

**Faculty of Aeronautics,**

**Technical University of Košice**

#### Technical co-sponsor:

**IEEE Czechoslovakia Section**