## Asian Workshop on Aircraft Design Education



21-22 October, 2022 NUAA, Room 511, Building A18, 29, Yudao Str. Nanjing

# Work Program of the AWADE-2022



## **Online Seminar**

22<sup>nd</sup> October (Sat), morning

#### Session 1

Session chairs: Prof. Anatolii Kretov and Prof. Dmytro Tiniakov

Time (Beij.)	Kind of work Author(s) Topic (Organization)	Report mode
08:30 – 08:50	Checking the communication of the 1st session participants	Online Online*
09:00 – 09:25	Opening Ceremony Welcome Speech to Asian Workshop AWADE-2022 and 70 <sup>th</sup> Anniversary of Nanjing University of Aeronautics and Astronautics  Prof. Anatolii Kretov. Brief speech about AWADE and EWADE history and seminar program (College of Aerospace Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China)	Online*
09:25 – 10:05	Keynote speech 1. Anthony P. Hays. Hydrogen-Powered Aircraft (California, USA)	Online
10:05 – 10:40	<b>Keynote speech 2</b> . <i>Prof. Jin. A new development of the design of the small airplane in NUAA</i> (College of Aerospace Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China)	Online*
10:40 - 11:00	Break	
11:00 – 11:15	Work speech 1. Clifton Read <sup>1</sup> , Anatolii Kretov <sup>2</sup> , and Yury Mekhonoshin <sup>3</sup> . Aerospace parachutes - as effective means of braking the returnable launch vehicles blocks and aerospace planes.  (1 – Executive Wisdom Consulting Group, Brisbane, Australia. 2 – College of Aerospace Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China, 3 – Research and Implementation Center "Atmosphere", Skolkovo, Russia)	Online*
11:15 – 11:30	Work speech 2. X.Zhao <sup>1</sup> *, W.J.C. Verhagen <sup>2</sup> . Aircraft Life Cycle Cost Analysis Supported by Knowledge Based Engineering (1 – College of Aerospace Engineering, Nanjing University of Aeronautics and Astronautics, 2 – School of Engineering, Aerospace Engineering and Aviation, RMIT University, China)	
11:30 – 11:45	Work speech 3. Zhaolin Chen <sup>1</sup> , XiaoHui, Wei <sup>1</sup> , and Ning Qin <sup>2</sup> . Optimization of High-Mach Low-Reynolds Number Airfoil Based on Genetic Algorithm (1 – College of Aerospace Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China, 2 – Department of Mechanical Engineering, University of Sheffield, UK)	Online
11:45 – 12:00	Work speech 4. S. Yeremenko, T. Solianyk. Aerodynamic features of the swept-forward wing (Department of Aero and Hydrodynamic, National Aerospace University «Kharkiv Aviation Institute»)	Online
12:00 – 12:15	Work speech 5. Mohanned Saleh (Fu Jian). Dynamic and Static Stability/Instability of Different Composite Structures (State Key Laboratory of Mechanics and Control of Mechanical Structures, University of Aeronautics and Astronautics, Nanjing, China, Nanjing).	Online*

<sup>\*</sup> All reports will be executed remotely (online), including speakers from Nanjing University of Aeronautics and Astronautics (online\*)

### 2<sup>nd</sup> October (Sat), afternoon and evening

#### Session 2

Session chairs: Prof. Anatolii Kretov and Prof. Dmytro Tiniakov

Time (Beij.)	Kind of work Author(s) Topic (Organization)	Report mode
13:30 – 13:50	Checking the communication of the 2st session participants	Online Online*
14:00 – 14:40	<b>Keynote speech 3</b> : D. Tiniakov <sup>1</sup> and A. Kretov <sup>2</sup> . The Weight and Aerodynamic Efficiency Estimation for a Wing with High Aspect Ratio for Future Civil Aircraft (1 – College of Civil Aviation, 2 – College of Aerospace Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China)	Online*
14:40 – 15:20	Keynote speech 4: Dieter Scholz. Tools and Data for the Aircraft Design Community to Optimize Part 25 Jets and Props (Hamburg University of Applied Sciences, Hamburg, Germany)	Online
15:20 – 15:35	Work speech 6. Liia Makarova. Features of the distance education process in aviation engineering disciplines (Department of Helicopter Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China)	Online
15:35 – 15:50	Work speech 7. Dennis Camilo, Dieter Scholz. Comparing Aircraft Wake Turbulence with Induced Power Calculations (Hamburg University of Applied Sciences, Hamburg, Germany)	Online
15:50 – 16:10	Break	
16:10 – 16:25	Work speech 8. Pavel V. Zhuravlev and Vladimir N. Zhuravlev. Creating models for early stages of design of families of trunk-route passenger airplanes (Moscow Aviation Institute, Department of Pre-Design and Effectiveness of Complex Aviation Systems, Moscow, Russia)	Online
16:25 – 16:40	Work speech 9. Dalius MAŽEIKA <sup>1</sup> , Piotr VASILJEV <sup>2</sup> , Sergejus BORODINAS <sup>1</sup> , Arunas STRUCKAS <sup>2</sup> , Regimantas BAREIKIS <sup>1,2</sup> . Flat ring-type radial-torsional ultrasonic motor for micro UAV (1 – Vilnius Gediminas Technical University, Vilnius, Lithuania, 2 – Vytautas Magnus University, Kaunas, Lithuania)	Online
16:40 – 16:55	Work speech 10. V.I. Khaliulin, L.P. Shabalin, V.V. Batrakov, E.A. Puzyretskiy. Simulation of composite molds 3D printing and lattice structures transfer molding (Kazan National Research Technical University named after A.N. Tupolev-KAI, Kazan, Russia)	Online
16:55 – 17:10	Work speech 11. N. Uddin and R. S. Pant. Design and Sizing of Reusable Indoor Hot Air Balloon (RIHAB) Lighter-than-air (Systems Laboratory, Aerospace Engineering Department, Indian Institute of Technology Bombay, Mumbai, India)	Online
17:10 – 17:25	Work speech 12. Eiman B. Saheby. Supersonic Drone (design and challenges) (College of Aerospace Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China)	Online*
17:25 – 17:40	Summing up the results. Discussion of AWADE action plans for 2023	

We will use the "**Tencent Meeting**" platform for our work

Meeting Topic: Prof. Tiniakov Dmytro's Scheduled Meeting

Time: 2022/10/22 08:00-18:00 (GMT+08:00) China Standard Time - Beijing

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