

Asian Workshop on Aircraft Design Education



Work Program

of the AWADE-2018

15-17 October, 2018

NUAA, Room 511,
Building A18, 29, Yudao Str.
Nanjing



Seminar

15th October (Mon), morning

Session 1 Session chair: *Prof. Anatolii Kretov*

No	Time (Beij.)	Author(s) and Topic
	08:30 – 09:00	Registration of participants
1	09:00 – 09:15	<i>Prof. Pingi Xia</i> (Dean of Aerospace Engineering College, NUAA) (<i>Speaker</i>) & <i>Prof. Zhang Zhuo</i> (Director of International Office, NUAA) WELCOME SPEECH TO ASIAN WORKSHOP AWADE-2018
2	09:15 – 09:30	<i>Prof. Anatoly Kretov</i> (NUAA) Brief Asian- and European WADE and program of AWADE 2018
3	09:30 – 11:00	<i>Prof. Anthony P. Hays</i> (California State University Long Beach, USA) Plenary presentation: Aircraft Design for Reduced Carbon Emissions
	11:00– 11:20	Group photo and coffee break with discussion of the Plenary presentation
4	11:20 – 11:40	<i>Dr. Liia Makarova</i> (NUAA, Kazan NRTU, Russia) Work Experience at the NUAA Summer School
5	11:40 – 12:00	<i>Pavel Shataev</i> (Kazan National Research Technical University, Russia) & <i>Samuel E. Nana Agyeman</i> , (NUAA)(<i>Speak.</i>) Optimization of Structure by Stiffness Criteria

15th October (Mon), afternoon

Session 2 Session chair: *Anthony P. Hays*

6	14:00– 14:25	Skype-report from Hong Kong: <i>Wen Chih-Yung, Sun Jingxuan</i> (Hong Kong Polytechnic University) Project-based Aircraft Design Education at the Hong Kong Polytechnic University
7	14:25– 14:50	<i>Dr. Victor Morozov</i> (“Aerorick” Enterprise, Ltd, Nizhny Novgorod, Russia) & <i>Enoch Ahiagbedey</i> , (NUAA)(<i>Speak.</i>) Aircraft Using Ground Effect: History, Features, Efficiency Estimation and Prospect of Development
8	14:50– 15:10	Skype- report from Australia: <i>Clifton Read</i> (Executive Wisdom Consulting Group, Brisbane, Australia) & <i>Prof. A. Kretov</i> (NUAA) Flight on a passenger plane as the process to study the aviation basics
	15:10–15:35	Group photo, coffee break and poster session
9	15:35– 15:50	<i>Prof. Z. Wang & Prof. A. Kretov</i> (NUAA) (<i>Speaker</i>) About the Curriculum for Foreign NUAA Students-masters on Aircraft Engineering
10	15:50– 16:10	Skype- reports from Germany: <i>Esther Appel, Hamed Rajabi and Stanislav Gorb.</i> (Department of Functional Morphology and Biomechanics, Zoological Institute of the University of Kiel, Germany). Structure and Properties of Dragonfly Wings: Composite Structure of Fibrous Material Supplemented by Resilin
11	16:10– 16:30	Student’s Skype-presentation from Russia: <i>A. V. Kuzmina, F. N. Boboev, D. N. Bezzametnova.</i> Kazan (National Research Technical University KAI, Russia) Design and Manufacture of Hatches of Aircrafts from Composite Materials with the Use of Directional Laying of the Fiber (TFP)
12	16:30– 16:50	Skype-report from Russia: <i>V. I. Khaliulin, R. S. Usmonov and A. A. Khudova.</i> (Kazan National Research Technical University, Russia) Design and Manufacture of Power Components of Aircraft Ade of Composites with the Use of Radial Braiding
13	16:50– 17:10	Skype-report from Russia: <i>V. R. Sakhbutdinova, R. S. Usmonov and E. S. Petrunina.</i> (Kazan National Research Technical University, Russia) The Process of Manufacturing a Multi-wall Panel of Aircraft From Composites
	17:10 – 18:10	The SDC work group: Consideration of tasks for the SDC

16th October (Tue), morning

Session 3 Session chair: *Dr. Oleksiy Chernykh*

14	09:00 –09:20	<i>Dr. Dmytro V. Tiniakov</i> (NUAA) Major content of Curricula on the direction Aircraft Design at National Aerospace University KhAI
15	09:20 – 09:40	<i>Anna V. Nechiporenko, Dr. Su Yan, Dr. Dmytro V. Tiniakov,</i> (NUAA) The Main Problems of the Supersonic Aircraft Fuel System Designing for the Transport Category, Taking into Account Its Certain Reliability Providing
16	09:40 – 10:00	<i>Dr. Oleksander Molier</i> (NUAA, Antonov State Company, Kyiv, Ukraine) Features of Titanium as a Structural Material for Aerospace Engineering
	10:00 – 10:25	Coffee break and posters discuss
17	10:25 – 10:50	<i>Prof. A. Kretov</i>) (NUAA), <i>Temur Usmonov</i> (<i>Speaker</i>) (NUAA, Department of Aircraft design, Uzbekistan) Reusable Space Systems: from the Space Shuttle to the Salvation of the First Stages
18	10:50– 11:10	<i>V. Chizhukhin, Yu. Mekhonochin, S. Zhurov, Yu. Gvozdev, V. Yushkov, A. Lykov</i> (Joint Stock Company “Atmosphere”, Dolgoprudny, Russia)

		Using Parachute System for Salvation of the First Stages of Launches Vehicles
19	11:10– 11:40	<i>Anthony P. Hays</i> (California State University Long Beach, USA) Initial Aircraft Sizing – a Critique
20	11:40– 12:00	<i>Jianmin Qiu</i> (NUAA), <i>prof.Dalius Mazeika</i> , <i>prof.Piotr Vasiljev</i> , <i>prof.Sergejus Borodinas</i> . (Vilnius Gediminas Technical University, Vilnius, Lithuania) Piezoelectric Motors for Micro Air Vehicle

16th October (Tue), afternoon **Session 4** Session Chair: *Prof.A. Kretov*

	14:00–14:10	<i>Prof.A.Kretov</i> . (NUAA) Information about Holding of Student Design Competition
21	14:10–14:30	<i>Stephane Tambwe MOLONGO</i> (<i>Speaker</i>) , and <i>Oleksiy Chernykh</i> , and <i>Dmytro Tiniakov</i> , (NUAA) Online Learning in Aeronautical Engineering Education
22	14:30–14:55	<i>Dr.Victor Morozov</i> (“Aerorick”, Nizhny Novgorod, Russia) & <i>Gabriel Tnajona Yves</i> , (NUAA) (<i>Speaker</i>) Aircraft Features with Amphibious Chassis (with Movie Demonstration)
23	14:55–15:15	Skype- report from Ukraine: <i>Olena Litvinova</i> , <i>Alina Matskevich</i> , <i>Natalya Sytnyk</i> , <i>Dmytro Toporets</i> (National Aerospace University KhAI, Ukraine) Teaching of Russian Language in the Framework of Sandwich Project Between National Aerospace University “KhAI” and Nanjing University of Aeronautics and Astronautics
24	15:15–15:35	Skype- report from Australia: <i>Dr.Dmytro V. Tiniakov</i> , (NUAA), <i>Clifton Read</i> . (Executive Wisdom Consulting Group, Brisbane, Australia) Civil Airplane Rational Designing on the Base of Aerodynamic Requirements
25	15:35–16:00	Skype- report from Romanian: <i>Fares Ibrahim ELSHERBINY</i> (University Politehnica of Bucharest, Romania), <i>Oleksiy Chernykh</i> (NUAA) Application of Augmented Virtual Reality Devices in Aviation Training

16th October (Tue), afternoon **Student Design Competition (individual competition)**
in the modes of direct participation (NUAA) and **Skype-conference (KhAI, Ukraine; KAI, Russia)**

SDC Chairman: *Dr.Dmytro Tiniakov*

- [14:15 – 14:30] setting questions to **SDC** participants;
- [14:30 – 16:30] preparation of answers by **SDC** participants;
- [16:30 – 16:45] submission of answers to competitive tasks;
- [16:45 – 17:30] consideration of the seminar participants of the SDC participants responses;
- [17:30 – 18:15] answers of **SDC** participants to Seminar participants;
- [18:15 – 19:00] evaluation by the seminar participants of student's responses.

Poster Session Oct.15-16

1. *Zhong Mingjie*, *prof. Mrykin S.V.*, *prof. Liu Li* (Beihang university. Beijing)

Designing high-altitude unmanned aircraft

2. ...

October 17th (Wed.) Morning:

[9:00 – 9:30] Summing up the results of the **Seminar** and **SDC**.

[9:30 – 9:40] Awarding of **SDC** winners and **Seminar** best speakers

[9:40 – 10:00] Discussion of **AWADE** action plans in 2019