



Day 1: Monday, 8th November 2021

Welcome Speeches 07:50 – 08:00 (CET) / 14:50 – 15:00 (HKT) MS Teams: https://polyu.hk/NcmbO			
07:50 – 07:55 (CET) 14:50 – 14:55 (HKT)	1	Prof. Dr.-Ing. Mirko HORNING Department Head of Aerospace & Geodesy (ASG), Head & Chair Professor of Aircraft Design (LLS) School of Engineering and Design Technical University of Munich (TUM)	
07:55 – 08:00 (CET) 14:55 – 15:00 (HKT)	2	Prof. Chih-yung Wen Head and Chair Professor of Aeronautical Engineering Department of Aeronautical and Aviation Engineering (AAE) The Hong Kong Polytechnic University (PolyU)	
Session 1: Aerodynamics, Thermodynamics, Propulsion 08:00 – 09:15 (CET) / 15:00 – 16:15 (HKT) Session Chair: Dr. Sangdi Gu MS Teams: https://polyu.hk/NcmbO			
0800 – 0815 (CET) 1500 – 1515 (HKT)	1	Aerodynamics of Aircraft and Rotorcraft – Research areas and projects	Prof. Christian Breitsamter (TUM)
0815 – 0830 (CET) 1515 – 1530 (HKT)	2	Introduction of some high-speed thermo-fluid researches in AAE, PolyU	Prof. Chih-yung WEN (AAE, PolyU)
0830 – 0845 (CET) 1530 – 1545 (HKT)	3	Introduction to the Institute of Turbomachinery and Flight Propulsion	Prof. Christian Breitsamter (TUM) on behalf of Prof. Volker Gümmer (TUM)
0845 – 0900 (CET) 1545 – 1600 (HKT)	4	Some recent progress in the restricted vortex ring formation in starting forced plumes	Prof. Simon YU (AAE, PolyU) Dr. Lei Gao (Sichuan University)
0900 – 0915 (CET) 1600 – 1615 (HKT)	5	Hypersonic wind tunnels, thermochemical nonequilibrium, and spectroscopy	Dr. Sangdi GU (AAE, PolyU)
Session 2: Aerodynamics, Thermodynamics, Propulsion 09:45 – 11:25 (CET) / 16:45 – 18:25 (HKT) Session Chair: Dr. Zijian Zhang MS Teams: https://polyu.hk/pgPcn			
0945 – 1010 (CET) 1645 – 1710 (HKT)	1	Methane/Oxygen Rocket Engine Challenges	Prof. Oskar Haidn (TUM)
1010 – 1035 (CET) 1710 – 1735 (HKT)	2	Vortex Dynamics of Multiple Flickering Buoyant Diffusion Flames	Dr. Peng ZHANG (ME, PolyU)
1035 – 1100 (CET) 1735 – 1800 (HKT)	3	On the use of oscillating jet flames in a coflow to develop soot models for practical applications	Prof. Agnes Jocher (TUM)
1100 – 1125 (CET) 1800 – 1825 (HKT)	4	Recent Advances in Oblique Detonation Propulsion	Dr. Zijian Zhang (AAE, PolyU)



Day 2: Tuesday, 9th November 2021

Session 3: Aerodynamics, Thermodynamics, Propulsion

08:00 – 09:40 (CET) / 15:00 – 16:40 (HKT)

Session Chair: Dr. Jiaao Hao

MS Teams: <https://polyu.hk/FLemr>

0800 – 0825 (CET) 1500 – 1525 (HKT)	1	On the Global Instability of Shock-Induced Separated Flows	Dr. Jiaao HAO (AAE, PolyU)
0825 – 0850 (CET) 1525 – 1550 (HKT)	2	Shock-Interface Interactions	Prof. Klaus Adams (TUM)
0850 – 0915 (CET) 1550 – 1615 (HKT)	3	Shock/Bubble & Shock/Droplet Interaction	Dr. E FAN (AAE, PolyU)
1015 – 0940 (CET) 1615 – 1640 (HKT)	4	Direct numerical simulation of hypersonic compression-ramp flow	Dr. Shibin CAO (AAE, PolyU)

Session 4: Mapping, Localization and Navigation

09:45 – 11:50 (CET) / 16:45 – 18:50 (HKT)

Session Chair: Dr. Weisong Wen

MS Teams: <https://polyu.hk/Khbju>

0945 – 1010 (CET) 1645 – 1710 (HKT)	1	Mapping and Localization for Autonomous Driving Vehicles in Urban Canyons	Dr. Weisong WEN (AAE, PolyU)
1010 – 1035 (CET) 1710 – 1735 (HKT)	2	Advanced GNSS Receiver Architecture and Signal Processing: Benefits and Challenges	Dr. Bing XU (AAE, PolyU)
1035 – 1100 (CET) 1735 – 1800 (HKT)	3	Planetary Mapping for Landing Site Selection in Lunar and Mars Missions	Dr. Wai Chung Liu (LSGI, PolyU)
1100 – 1125 (CET) 1800 – 1825 (HKT)	4	GNSS for Civil Aviation	Dr. Yiping JIANG (AAE, PolyU)
1125 – 1150 (CET) 1825 – 1850 (HKT)	5	GNSS Positioning in Urban Canyons	Dr. Li-Ta HSU (AAE, PolyU)



Day 3: Wednesday, 10th November 2021

Session 5: Design, Systems, Structures and Materials

08:00 – 09:15 (CET) / 15:00 – 16:15 (HKT)

Session Chair: Dr. Xi Shen

MS Teams: <https://polyu.hk/VLvQD>

0800 – 0815 (CET) 1500 – 1515 (HKT)	1	Rotor Experiments and Simulator Trials	Prof. Manfred Hajek (TUM)
0815 – 0830 (CET) 1515 – 1530 (HKT)	2	Multiscale design and rational assembly of polymer nanocomposites for multifunctional applications	Dr. Xi Shen (AAE, PolyU)
0830 – 0845 (CET) 1530 – 1545 (HKT)	3	Processing of high-performance composite structures	Prof. Klaus Drechsler (TUM)
0845 – 0900 (CET) 1545 – 1600 (HKT)	4	Carbon nanomaterial/polymer nanocomposite strain sensors for acquiring ultrasonic waves	Dr. Frank Zou (AAE, PolyU)
0900 – 0915 (CET) 1600 – 1615 (HKT)	5	UAV design for aerial surveillance missions	Prof. Mirko Hornung (TUM)

Session 6: Systems, Design, GNC

09:20 – 11:00 (CET) / 16:20 – 18:00 (HKT)

Session Chair: Dr. Hailong Huang

MS Teams: <https://polyu.hk/QufZv>

0920 – 0940 (CET) 1620 – 1640 (HKT)	1	Unconventional UAVs for novel applications and new forms of mobility	Prof. Sophie Armanini (TUM)
0940 – 1000 (CET) 1640 – 1700 (HKT)	2	Aerial Surveillance by UAVs	Dr. Hailong HUANG (AAE, PolyU)
1000 – 1020 (CET) 1700 – 1720 (HKT)	3	Autonomous UAVs: How to fly fast in unknown environments	Dr. Markus Ryll (TUM)
1020 – 1040 (CET) 1720 – 1740 (HKT)	4	Development of VTOL UAS at the intersection between aeronautics and robotics 1720	Dr. Boyang LI (AAE, PolyU)
1040 – 1100 (CET) 1740 – 1800 (HKT)	5	eVTOL Modeling, Dynamics and GNC	Prof. Florian Holzapfel (TUM)

Closing Remarks

11:00-11:10 (CET) / 18:00-18:10 (HKT)

MS Teams: <https://polyu.hk/QufZv>

11:00 – 11:05 (CET) 18:00 – 18:05 (HKT)	1	Prof. Florian Holzapfel Director of Institute of Flight System Dynamics Technical University of Munich (TUM)
11:05 – 11:10 (CET) 18:05 – 18:10 (HKT)	2	Prof. Chih-yung Wen Head and Chair Professor of Aeronautical Engineering Department of Aeronautical and Aviation Engineering (AAE), HK PolyU