Workshop Program

16th Pico- and Nanosatellite Workshop 2023

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Day 1 - Wednesday, 27th September, 2023	
08:30	Registration
09:00	Welcome Marco Schmidt, Department of Embedded Systems and Earth Observation, University of Würzburg, Germany
Session 1: Testbed	
09:15	Keynote talk: Effective Testing of Lean Satellite Constellation, Mengu Cho
10:00	Flight Software Test Concepts for the Phase D SOURCE CubeSat for Software Development and FlatSat Testing, Noel Luz
10:25	A stratospheric balloon experiment as testbed for CubeSat components, Thorsten Döhring
10:50	**Morning Coffee Break**
11:15	Air bearing platform resistant torque modeling with machine learning, Kamil Piecha
Session 3: Mission Design	
11:40	What can you do with a CubeSat in Deep Space? A Systematic Survey on Opportunities and Key Technologies for Extraterrestrial Small Satellites, Jonathan Männel
12:05	UWE 5, Phillip Bergmann
12:30	**Lunch Break**
Session 4: Science and Payload	
13:30	Characterization of Gecko-Inspired Dry Adhesion with a Free-Floating Target, Markus Huwald
13:55	Visual Servoing for Attitude and Orbit Determination and Control of Small Satellites, Johannes Dauner
14:20	Distributed GNSS-R System for Targeted Observations, Patrick Schnierle
14:45	**Afternoon Coffee Break**
Session 5: Student Projects	
15:10	Student-Driven Small Satellite Projects, Lucas Krempel
15:35	Organizational Aspects of High-Turnover Student-Led Teams in Space Technology Development, Felix Firmbach
16:00	Discussion: The desire for an architecture/interface standard for onboard software
17:00	**End of Day 1**
19:00	**Conference Dinner in Bürgerspital, Theaterstraße 19, Würzburg**

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Day 2 - Thursday, 28th September, 2023	
Session 6: Hardware	
09:00	Keynote talk: Disruptive New Space: Formation and Production Challenges, Klaus Schilling
09:45	Optical laser terminals for CubeSat-based QKD
10:10	**Morning Coffee Break**
10:40	Complex Optimizations Performed Using Low-Performance Hardware, Michael Dorin
Session 7: In Orbit Experience	
11:05	Sonate 2 – A technology demonstration mission for AI for image processing and anomaly detection, Tobias Greiner
11:30	LoLaSat – VLEO CubeSat in-orbit demonstration mission for very low latency satellite communication, Oliver Ruf
11:55	Launch and Early Operations Phase of the E-Band Technology Demonstration Cubesat EIVE, Robin Müller
12:20	**Lunch Break**
13:20	Attitude control system commissioning and in orbit experiences from VZLUSAT-2, Svoboda Petr
Session 8: Software	
13:45	Implementation of the ECSS PLUTO Language in Pytho, Artur Scholz
14:10	A Quantitative Evaluation of Feature Matching Algorithms for CubeSats, Bence Barthó
14:45	**Afternoon Coffee Break**
15:15	SAT:IO – A startup providing flexible and scalable ground software solutions, Sebastian Wenzel
15:40	Closing ceremony
15:55	**End of Day 2**

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