



Workshop Program

8th Pico- and Nanosatellite Workshop 2015



Day 1 - Tuesday, 15 th September, 2015	
08:30	Registration
09:00	Welcome <i>Klaus Schilling, Department of Robotics and Telematics, University of Würzburg, Germany</i>
Session 1 : Small Satellites – General Aspects Chair: Klaus Schilling	
09:10	Introduction to UNISEC-Global - from educational satellite projects to practical applications <i>Rei Kawashima, UNISEC</i>
09:30	Frequency coordination for small satellites – current status, further proceeding <i>Martin Buscher, TU Berlin, Germany</i>
09:50	Development of a Low Cost Suborbital Rocket for Small Satellite Testing and In-Space Experiments <i>Peter H. Weuta, WEPA-Technologies GmbH, Germany</i>
10:10	Applying the Open Source Paradigm to CubeSat Missions <i>Artur Scholz, LibreCube Initiative, Germany</i>
10:30	<i>Morning Coffee Break</i>
Session 2a : Small Satellite Missions Chair: Alim Rüstem Aslan	
11:00	Enabling Autonomous Distributed Pico-Satellite Systems <i>Tiago Nogueira, Zentrum für Telematik e.V., Germany</i>
11:20	Constellation of Pico-Satellites for 3D Earth observation <i>Nissen Lazreg, University of Monastir, Tunisia</i>
11:40	Early Point-Of-Interest Scanning mission <i>Ji Hyun Park, Seoul National University, Korea</i>
12:00	SOMP2, a 2U CubeSat – Where is it now? <i>Yves Bärtling, TU Dresden, Germany</i>
12:30	<i>Lunch Break</i>
13:20	<i>Guided tour: Local Facilities</i>
Session 2b : Small Satellite Missions Chair: Moritz Fontaine	
14:00	VZLUSAT-1 nanosatellite and mission control center <i>Ivo Vertat, University of West Bohemia, Czech Republic</i>
14:20	OPS-SAT: ESA's first nanosatellite <i>David Evans, ESA/ESOC Darmstadt, Germany</i>
14:40	Exploring the Application of Pico-Satellites for Maritime Security <i>Nikitas Nikitakos, University of Aegean, Greece</i>
15:00	NetSat: Pico-Satellite Formation Flying <i>Klaus Schilling, Department of Robotics and Telematics, University of Würzburg, Germany</i>
15:20	<i>Afternoon Coffee Break</i>
Session 2c : Small Satellite Missions Chair: Nikitas Nikitakos	
15:50	Small Satellite Projects within ITU-NanoSat Group with National and International Cooperation <i>Alim Rüstem Aslan, Istanbul Technical University, Turkey</i>
16:10	Mission objectives of the Picosatellite BEESAT-4 <i>Sascha Weiß, TU Berlin, Germany</i>
16:30	Design, Manufacturing and Test of the CubeSat URSA MAIOR <i>Alice Pellegrino, University of Rome "La Sapienza", Italy</i>
16:50	UWE-4: Orbit determination and Control on a Pico-Satellite scale <i>Philip Bangert, University of Würzburg, Germany</i>
17:10	<i>End of Day 1</i>
19:00	<i>Conference Dinner in Bürgerspital, Theaterstraße 19, Würzburg</i>



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Day 2 – Wednesday, 16th September, 2015

Session 3a: Attitude and Orbit Control		Chair: Stefan Scharring
09:00	ESTCube-1 in-orbit results of spin-up using magnetic actuators <i>Hendrik Ehrpais, Tartu Observatory, Estonia</i>	
09:20	PicoStar – Prototyping of a Star Sensor for Pico-Satellites <i>Tobias Schwarz, University of Würzburg, Germany</i>	
09:40	Orbital elements determination based of magnetic field spectral analysis <i>Pawel Zagorski, AGH University of Science and Technology, Krakow, Poland</i>	
10:10	Morning Coffee Break	
Session 3b: Attitude and Orbit Control		Chair: Pawel Zagorski
10:40	Propulsion System for CubeSat Formation Flight <i>Mathias Pietzka, University of the Federal Armed Forces München, Germany</i>	
11:00	NanoFEED – Highly Miniaturized FEED Thrusters for Attitude and Orbit Control of Pico-Satellites <i>Daniel Bock, TU Dresden, Germany</i>	
11:20	The MICROLAS concept: Precise thrust generation in the μN range by laser ablation <i>Stefan Scharring, German Aerospace Center (DLR), Germany</i>	
Session 4: Subsystem Technology		Chair: Stephan Busch
11:40	Requirement of Testing to Li-Ion Batteries for Launch by ISS <i>Cleber Toss Hoffmann, National Institute for Space Research, São José dos Campos, Brazil</i>	
12:00	Towards Efficient Dependable Nanosatellite Computing <i>Christian M. Fuchs, TU München, Germany</i>	
12:30	Lunch Break	
13:20	Shape Memory Alloy Based Reusable Deployment Mechanisms for CubeSats <i>Johannes Gutmiedl, TU München, Germany</i>	
13:40	Computer Aided Approach on Optimizing Solar Array Circuitry on CubeSats <i>Patrick Günzel, TU München, Germany</i>	
Session 5: Communication		Chair: Christopher Schmidt
14:00	S-Band, UHF and VHF Communication System for CubeSats including Ground Station Software <i>Ralf Wilke, RWTH Aachen University, Aachen, Germany</i>	
14:20	OSIRIS: High-Datarate Optical Downlinks for Small Satellite Platforms <i>Christopher Schmidt, German Aerospace Center (DLR), Germany</i>	
14:40	Afternoon Coffee Break	
15:10	Developing a Next Generation CubeSat Radio Link <i>Nicolas Appel, TU München, Germany</i>	
15:30	Creating Ground Segment Software based on the Fire Framework <i>Veaceslav Dombrowski, University of Würzburg, Germany</i>	
15:50	Scheduling objectives in academic ground station networks <i>Marco Schmidt, Bochum University of Applied Sciences, Germany</i>	
16:10	A niche professional network for the Space industry <i>Maxime Sixdeniers, SpaceBoard – The Space Network, France</i>	
16:30	End of Day 2	



ZENTRUM
FÜR
TELEMATIK E.V.

