

ISU SSP 2011 TP Small Satellites - Biographies

Balogh, Werner

Werner Balogh is Programme Officer for Basic Space Technology in the United Nations Office for Outer Space Affairs (UNOOSA) based in Vienna, Austria. Prior to this he worked as International Relations Officer for the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), as Programme Manager for the Austrian Space Agency and as Associate Expert for Space Applications in UNOOSA. He contributed to the planning and organization of the Third United Nations Conference on the Peaceful Uses of Outer Space (UNISPACE III) held in Vienna in July 1999. He holds engineering and doctorate degrees in technical physics from the Vienna University of Technology and master degrees from the International Space University and the Fletcher School of Law and Diplomacy.

TP expertise and interests:

- United Nations and Outer Space
- Capacity building in space technology and applications
- International space law
- Registration of space objects

Bradford, Andy

Andy Bradford is the current Director of Engineering at Surrey Satellite Technology Ltd (SSTL) in the UK. He has been at SSTL since 2000, and during the time has managed two major projects, from start to finish (BILSAT-1 and also GIOVE-A), and has also led the Mechanical Engineering Group at SSTL. Before joining SSTL Andy worked for another UK small satellite company, Space Innovations Limited (SIL), as a Systems Engineer. He started his career in the space industry as a Young Graduate Trainee at ESA (ESTEC), and was heavily involved in the TEAMSAT small satellite mission which flew on Ariane 502. Andy holds an MSc in Astronautics and Space Engineering from Cranfield University.

TP Expertise and Interests:

- Low cost/Small Satellite Mission Engineering
- Small satellite project/programme management
- Risk Management
- Exploitation and use of COTs technologies in Space Applications

Fleeter, Rick

Dr. Rick Fleeter is a professor of engineering at Brown University, Providence, RI, USA, and at La Sapienza Rome, Italy, where he is also a consultant to the Italian Space Agency. In 1988 he founded and was for 21 years President of the small satellite company AeroAstro (USA), during which time he also co-founded Encounter 2001 and created the International Small Satellite Organization (ISSO) and Space Horizons. He has been responsible for the development of over 20 miniature satellites ranging from 1 to 110 kg. He created and produces the annual one day Emerging Space Technologies Workshop at Brown University. Rick is a partner in the database software startup Space-Point based in Rome. Rick has written the only two books dedicated to small satellite technology and management, Micro Space Craft and The Logic of Microspace. He has contributed microspace chapters to encyclopedias and textbooks including Space Mission Analysis and Design. His next aerospace engineering book, Management of Space Programs, will be available in 2012.

TP expertise and interests:

- Small Spacecraft Missions and Architecture
- Small Space System Development and Program Management
- Entrepreneurism in microspace
- Keywords: AeroAstro, Microspace, Small Satellites

Kawashima, Rei

She has served University Space Engineering Consortium (UNISEC) based in Tokyo, an educational non-profit organization that aims to support and to facilitate practical space projects such as building and launching micro/nano satellites and hybrid rockets at university level as Secretary General since 2002, and as Chair of Committee for Internationalization since 2011. She was involved in founding AXELSPACE Corporation which is specialized in nano-satellites, and served it as marketing director from 2008-March 2011. Her academic background includes B.A. in Chinese Literature from Hokkaido University; Japan, M.A. in Leadership Studies from Azusa Pacific University, USA and M.S.S. from International Space University, France. Her strong interests in writing brought her opportunities to publish two books and many articles.

TP expertise and interests:

- Marketing
- Capacity building program with nano-satellites
- Mission Idea Contest
- Japanese space policy and law

Larson, Wiley

Wiley Larson is the Asst Dean for the School of Systems and Enterprises, as well as the Director of Space Systems Engineering at the Stevens Institute of Technology, Hoboken, NJ, USA. He is the Managing Editor, of McGraw Hill's Space Technology Series where his team of 300+ authors and editors have created 20 books focused on design experience and lessons learned in spaceflight. Prior to this he served as Professor and Director of the TU Delft SpaceTech Masters program in space systems engineering and a Professor for the Masters program at ISU.

TP expertise and interests:

- Space mission and system architecture and design
- Development of space systems engineers and project managers
- Commercial spaceflight

Nelson, Joshua

Joshua is a graduate student at the University of North Dakota. He holds his bachelors in aerospace engineering from the University of Arizona, along with minors in astronomy, physics, and planetary science. In 2009 he attended the International Space University Space Studies Program at NASA Ames. His space work includes astronomical imaging, high altitude balloon payloads, lunar landers, Martian drills, educational outreach, rocket operations, and Mars analog simulations. Currently Josh is the Chief Engineer at the Mars Desert Research Station, a geological Mars analog. Outside of space, Josh is an avid hiker, registered Emergency Medical Technician, and HAM radio operator.

Puig-Suari, Jordi

Dr. Puig-Suari received B.S., M.S., and Ph.D. Degrees in Aeronautics and Astronautics from Purdue University. After completing his Doctorate degree in 1994 he joined the Mechanical and Aerospace Engineering at Arizona State University. In 1998, Dr. Puig-Suari joined the Aerospace Engineering Department at CalPoly, San Luis Obispo. At Cal Poly he worked with Prof. Bob Twiggs at Stanford to develop the CubeSat standard. As faculty advisor for Cal Poly's CubeSat team he has been involved in the development and launch of 5 CubeSats and is currently working on 3 additional spacecraft. His team has also supported 9 CubeSat Launch campaigns in Russia and the US with 4 more launches already manifested. Dr. Puig-Suari's research interests include space mission design, low-cost space systems, and vehicle dynamics and control.

TP expertise and interests:

- CubeSat standard
- Space mission design
- Low-cost space systems
- Vehicle dynamics and control

Schilling, Klaus

Prof. Dr. Schilling worked in space industry on design of interplanetary satellites (Cassini/Huygens, Rosetta) before he became Ordinarius Informatics VII: Robotics and Telematics at University Würzburg. In parallel he is president of the company „Zentrum für Telematik e.V.“. He was Consulting Professor at Stanford University and recipient of the Walter-Reis-Award in Service Robotics 2008. In the International Federation on Automatic Control (IFAC) he serves as Chairman of „Technical Committee on Computers and Telematics“ and at IEEE he was appointed 2005 as chairman of the „Technical Committee on Networked Robotics“. He is co-editor of the journal “Space Technology”. His team designs the UWE family of pico-satellites (University Würzburg's Experimental satellites) : UWE-1 launched 2005, UWE-2 launched 2009, UWE-3 completed, UWE-4 in design phase,...

TP relevant expertise and contributions:

- Small satellite design and implementation
- Mission analyses and tele-operations
- Distributed small satellite systems
- Space robotics

Van Breukelen, Eddie

Eddie van Breukelen is one of the founders of ISIS – Innovative Solutions In Space BV and Financial Director to the company. Since its start in 2006, ISIS has grown into a 30 people company and specializes in all aspects of nanosatellite and cubesat missions, from building the satellite to arranging the launch, to operations of orbiting satellites and providing services based on information gathered using these very small and low cost satellites. Several ISU students have already joined our team or have been part of it at some point for internships. Before starting ISIS he was an MSc thesis student at the Space Systems Engineering research group of TU Delft, involved in the design and construction of the Delfi-C3 satellite, specializing in command and data handling, (passive) attitude control and systems engineering aspects of this mission.

Woellert, Kirk

Kirk Woellert is the Director, Washington DC Operations for Interorbital Systems (IOS). Kirk manages the government relations, compliance and development activities of the IOS team in the Washington DC. He has over 20 years of experience in the U.S. Intelligence Community, in systems engineering and mission support while on active duty and in the private sector with The Analytical Sciences Corporation (TASC), Northrop Grumman and Kingfisher Systems. His background also includes information systems and project management experience for startups PanAmSat (NET36) and Precipia Systems for the Singapore RAHS Center project. A former U.S. Navy SIGINT officer, Kirk has served in leadership positions supporting tactical operations in various theaters and national space assets at the National Security Agency. Kirk holds an M.A. in International Science and Technology Policy from the George Washington University (Space Policy) and a B.S. in Mathematics from Lander University. He holds certifications in Geospatial Information Systems (GIS) and Project Management.

TP expertise and interests:

- Space Policy
- Space Access and Small Satellites
- Space Applications for Capacity Building

Publications

- Woellert et al, Cubesats: Cost-effective science and technology platforms for emerging and developing nations, *Advances in Space Research*, Oct 9, 2010, doi:10.1016/j.asr.2010.10.009
- Sylvan, Komerath, Woellert, Homnick, Palaia, The Emerging Inner Solar System Economy. *World Future Review*, Vol.1 No.1, April-May, 2009