

**Monday**  
25.06.2018 09:30 17:00

Short Course - IRIG106 Ch23 MDL

**Agenda**

- 09:30 1 - Welcome and Introduction 0:15
- 09:45 2 - MDL Roadmap 0:30
- 10:15 3 - MDL Overview 0:45
- 11:00 Break 0:15
- 11:15 4 - MDL Examples Walkthrough 01:00
- 12:15 Lunch 1:30
- 13:45 5 - MDL Scenarios 1:30
- 15:15 Break 0:15
- 15:30 6 - MDL Scenarios 1:00
- 16:30 7 - Tools, Questions, and Conclusion 0:30
- 17:00 End

Tuesday		Room 1 - ettc	Room 2 - ettc	Room 3 - ettc
26.06.2018	09:00 11:00		Registration & Weisswurst Frühstück	
	11:00 11:30			
	11:30 12:00		Opening Ceremony	
	12:00 12:30			
	12:30 13:30	Lunch	Lunch	Lunch
		<b>1. Session</b>	<b>2. Session</b>	<b>3. Session</b>
		<b>Sensors</b>	<b>Modulation &amp; Coding</b>	<b>Data Management Standards</b>
		<b>Chairman: Steve Lyons, QinetiQ (Great Britain)</b>	<b>Chairman: Philipp Wager, Airbus Defence and Space (Germany)</b>	<b>Chairman: Mahmut Kürsad Arpacioğlu, TAI Turkish Aerospace Industries, Inc. (Turkey)</b>
		(10.912) 1.1	(10.906) 2.1	(10.930) 3.1
		New high-temperature ICP®-vibration sensors with overload protection to improve measurement uncertainty and reduce measurement errors	Subhorizon and Transhorizon over-sea propagation tests with Line-of-Sight Lygarion® Datalink technology	Next Generation Vehicle Diagnostics
	13:30 14:00	S. Meyer, PCB Synotech GmbH, Hückelhoven (Germany)	A. Fihel, Airbus Defence and Space, Elancourt (France)	J. Supke, emotive GmbH & Co. KG, Ostfildern (Germany)
		(10.954) 1.2	(10.952) 2.2	(10.935) 3.2
		Optical Mapping of Oscillatory Stresses in Transparent Media Using Adaptive Detectors	Telemetry Standards That Improve Link Availability	Configuring Applications based in XdefML
	14:00 14:30	I. A. Sokolov, Ioffe Physical-Technical Institute, St. Petersburg (Russia)	K. Temple, Air Force Test Center, Edwards AFB (USA)	J. A. González Pastrana, Airbus Defence and Space, Getafe (Madrid) (Spain)
		(10.961) 1.3	(10.964) 2.3	(10.951) 3.3
	An overview of the BLADE Flight Test Instrumentation	History and Advantages of Best Source Selection for Today's Modern Telemetry Applications and the Benefits of Different Approaches	A JSON transactional data server for flight tests	
14:30 15:00	B. Mouchet, AIRBUS France, Toulouse (France)	S. Nicolo, GDP Space Systems, Horsham, Pennsylvania (USA)	O. Gigato Rodriguez, Airbus Defence and Space, Getafe (Madrid) (Spain)	
	(10.967) 1.4	(10.916) 2.4	(10.966) 3.4	
	High precision Wireless Chipless Telemetry of Temperature	Launch Vehicle Electrical Power System Rocket-ground Wireless Interface Prototype	Vistas WG#97 a new Eurocae standard allowing the Virtualization of avionic signal & digital buses on Ethernet & digital buses on Ethernet	
15:00 15:30	T. Aftab, T. Schaechtle, L. Reindl, Department of Microsystems Engineering (IMTEK), University of Freiburg, Freiburg (Germany)	X. Bi, Beijing Institute of Astronautical, Fengtai Strict, Beijing (China)	C. Herbepin, Airbus Helicopters, Marignane (France)	
15:30 16:00	Coffee break	Coffee break	Coffee break	
	<b>1. Session</b>	<b>4. Session</b>	<b>5. Session</b>	
	<b>Sensors</b>	<b>RF Design</b>	<b>Time-Space position technologies</b>	
	<b>Chairman: Steve Lyons, QinetiQ (Great Britain)</b>	<b>Chairman: Mark McWhorther, Lumistar Inc. (USA)</b>	<b>Chairman: Pilar Vicaria, Airbus Defence and Space (Spain)</b>	
	(10.905) 1.5	(10.914) 4.1	(10.933) 5.1	
	Weak Lidar-signal Extraction for Vibration Measuring of Spacecrafts	Hardware Acceleration for Beamforming Algorithms based on Optimized Hardware-/Software Partitioning	Position tracking for outdoor sport events with GNSS and LoRa	
16:00 16:30	C. Shengzhe, Beijing Institute of Astronautical, Fengtai Strict, Beijing (China)	R. Schmidt, Technische Universität Chemnitz, Chemnitz (Germany)	J.-M. Gruber, ZHAW, Winterthur (Switzerland)	

	<p>(10.915) 1.6 Smart Structures and Advanced Sensing Technologies in Space Vehicles 16:30 17:00 S. Geng, Beijing Institute of Astronautical, Fengtai Strict, Beijing (China)</p>	<p>(10.945) 4.2 Experimental measurement and antenna isolation for communication system in underground mine Z. Khurelbaatar, Mongolian University of Science and Technology, Mongolia (Mongolia)</p>	<p>(10.944) 5.2 LORA based Biotelemetry System for Large Land Mammals K. C. Grande, Federal University of Technology Parana, Curitiba-PR (Brazil)</p>
	<p>17:00 17:30</p>	<p>(10.918) 4.3 Design of Telemetry System for Low Orbit Satellite Based On Short Message Service of Beidou III Navigation Satellite System S. Ding, Beijing Space Quest LTD., Beijing (CHINA)</p>	<p>(10.959) 5.3 Testing GPS / GNSS positioning and timing to improve safety in autonomous driving K. von Hünerbein, Lange-Electronic GmbH, Bielefeld (Germany)</p>

Wednesday 27.06.2018	Room 1 - ettc	Room 2 - ettc	Room 3 - ettc
	<b>International Consortium for Telemetry Spectrum (ICTS)</b> Chairman: Guy Williams	<b>6. Session</b> <b>Networks &amp; Architectures</b>	<b>7. Session</b> <b>AIM 2018</b> Chairman: Fritz Boden, Deutsches Zentrum für Luft- & Raumfahrt e.V. (Germany)
09:30 10:00		(10.917) 6.1 MIL-STD-1553B and its potential for the future H. Plankl, Airbus Defence and Space GmbH, Manching (Germany)	(10.938) 7.1 Application of Fibre Optic Range-Resolved Interferometric Vibrometry to a Full-Scale Feathered Propeller in a Wind Tunnel S. James, Cranfield University, Cranfield (Great Britain)
10:00 10:30		(10.963) 6.2 Sabotage and Disclosure of Flight Test and other reasons & methods to intercept, jam or spoof telemetry and GPS M. Niewöhner, COMPLETEER.NET, Hamburg (Germany)	(10.939) 7.2 Agile Design of Camera-Based Setups for Measuring Deformations In-Flight R. Meyer, DLR - Deutsches Zentrum für Luft- und Raumfahrt e. V. , Göttingen (Germany)
10:30 11:00	Coffee break	Coffee break	Coffee break
11:00 11:30		(10.957) 6.3 From "Data-centric Operations" to Industrial Internet of Ships C. Spandonidis, Prisma Electronics S. A., Alexandroupolis (Greece)	(10.940) 7.3 Application of Fibre Bragg Grating Sensors to a Stalled High Lift Wing E. Alcusa Saez, Cranfield University, Cranfield (Great Britain)
11:30 12:00		(10.919) 6.4 Research on data communication network architecture for launch vehicle Y. Wang, China Academy of Launch Vehicle, Beijing (CHINA)	(10.955) 7.4 Optical Rotor-Blade Deformation Measurements using a Rotating Camera System F. Boden, DLR - Deutsches Zentrum für Luft- und Raumfahrt e. V. , Göttingen (Germany)
12:00 12:30		(10.920) 6.5 Application of high reliability and high speed wireless sensor network system with wireless transceiver modules on space vehicle Y. Li, Beijing Institute of Astronautical, Fengtai Strict, Beijing (CHINA)	(10.962) 7.5 Optoelectronics system for estimating measurement error of Image Pattern Correlation Technique T. Kirmse, DLR - Deutsches Zentrum für Luft- und Raumfahrt e. V. , Göttingen (Germany)
12:30 13:30	Lunch	Lunch	Lunch
13:30 18:00	Free for exhibition visit ettc & SENSOR+TEST		
19:00 23:00	Bavarian Dinner	Bavarian Dinner	Bavarian Dinner

Thursday 28.06.2018	Room 1 - ettc	Room 2 - ettc	Room 3 - ettc
	<b>European Telemetry Standardisation Committee (ETSC)</b> <b>Chairman: Gilles Freaud, AIRBUS France (France)</b>	<b>8. Session Spectrum Efficiency</b> <b>Chairman: Tim Chalfant, COLSA Corporation (USA)</b>	<b>9. Session Data Acquisition</b>
09:30 10:00		(10.941) 8.1 Integrated Network Enhanced Telemetry (iNET): Impact to the Telemetry Community T. Young, Air Force Test Center, Edwards AFB (USA)	(10.901) 9.1 Telemetric acquisition of vital parameters and classification of cognitive states with machine learning M. Bussas, Trout GmbH, Kassel (Germany)
10:00 10:30		(10.942) 8.2 Creating the Future Test Range Infrastructure: Vision for a Wireless Inter-Range Network Environment T. O'Brien, DoD Central Test and Evaluation, Alexandria (USA)	(10.910) 9.2 DASP Towards a Generic Data Acquisition Configuration System M. Gonzalez Martin, Airbus Defence and Space, Getafe (Madrid) (Spain)
10:30 11:00	<b>Coffee break</b>	<b>Coffee break</b>	<b>Coffee break</b>
11:00 11:30		(10.948) 8.3 Ninja Telemetry Operations: The need to survive in a congested spectral environment T. A. Chalfant, COLSA Corporation, Palmdale (USA)	(10.913) 9.3 Integrated data acquisition solutions for platforms with stringent space, weight and environmental requirements P. Quinn, Curtiss-Wright Avionics & Electronics, Dublin (Ireland)
11:30 12:00		(10.965) 8.4 Telemetry Network Standards Overview T. Grace, NAVAIR, Patuxent River (USA), B. Abbott, San Antonio, TX (USA)	(10.950) 9.4 Design of a minimum weight/space/energy consumption instrumentation system F. Mertl, Airbus Helicopters Deutschland GmbH, Donauwörth (Germany)
12:00 12:30			(10.924) 9.5 Inflight-Measurements of Aircraft Undercarriage Vibration during Deployment J. Schwchow, DLR - Deutsches Zentrum für Luft- und Raumfahrt e. V. , Göttingen (Germany)
12:30 13:30	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>
	<b>10. Session Imaging &amp; Video</b> <b>Chairman: Christian Herbepin, Airbus Helicopters (France)</b>	<b>11. Session Networks &amp; Data acquisition</b> <b>Chairman: Sergio Duarte Penna, EMBRAER (Brazil)</b>	<b>12. Session Data Management Applications</b> <b>Chairman: Pedro Rubio, Airbus Defence and Space (Spain)</b>
13:30 14:00	(10.902) 10.1 A400M. Flares trajectories calculation from a chase aircraft F. Coll Herrero, Airbus Defence and Space, Getafe (Madrid) (Spain)	(10.946) 11.1 Intelligent Networked Flight Test Instrumentation for a new fighter prototype G. Martinez Moran, Airbus Defence & Space, Getafe (Spain)	(10.925) 12.1 Airborne Real Time Data Validation System for Flight Test Using Mobile Devices N. Leite, Instituto de Pesquisas e Ensaios em Voo, Sao Jose dos Campos (Brazil)
14:00 14:30	(10.903) 10.2 PARIS - Parallelisation Architecture for Real-time Image Data Exploitation and Sensor Data Fusion M. Nagler, Technische Universität Chemnitz, Chemnitz (Germany)	(10.969) 11.2 Progress and Future Perspectives in Airborne Communication Networking K.-D. Büchter, Bauhaus Luftfahrt e.V., Taufkirchen (Germany)	(10.931) 12.2 A case study in creating flexible FTI configuration software A. Cooke, Curtiss-Wright Avionics & Electronics, Dublin (Ireland)
14:30 15:00	(10.936) 10.3 Applications of Machine Vision in Flight Test H. Ibaroudene, Southwest Research Institute, San Antonio (USA)	(10.929) 11.3 Design and implementation of a long range autonomous wireless critical system and its application in remote hydro electrical infrastructure (water channels) for risk prevention and hazards in case of hydraulic channels breaks J. Fernández Huerta, Kunak Technoloies S. L., Noain (Spain)	(10.932) 12.3 A process model for the discovery of knowledge in sensor-based indoor climate data D. Grüdl, Fraunhofer-Institut - IIS -, Coburg (Germany)

15:00	15:30	(10.937) 10.4 Method and Software to Perform Pitch Drop L. E. Guarino de Vasconcelos, Instituto de Pesquisas e Ensaio em Voo, Sao Jose dos Campos (Brazil)	(10.956) 11.4 Real-Time access to past measurements using bidirectional communication (TmNS) H. Körtzel, Airbus Defence and Space GmbH, Manching (Germany)	(10.934) 12.4 Machine Learning-Driven Test Case Prioritization Approaches for Black-Box Software Testing R. Lachmann, IAV GmbH, Gifhorn (Germany)
15:30	16:00	Coffee break		
16:00	16:30	(10.958) 10.5 High graphic performance for Low Level Flight R. López Parra, Airbus Defence and Space, Getafe (Madrid) (Spain)	(10.960) 11.5 Databird: system for aircraft data value demonstration S. Martin, AIRBUS OPERATIONS SAS, Toulouse (France)	(10.968) 12.5 Improving the efficiency of T&E for Aircraft and Mission Systems with more effective modeling and simulation P. Aves, J. Baxter, Analytical Graphics Incorporated, Exton, PA (USA)
16:30	17:00	(10.926) 10.6 A new image recognition method based on space vehicle surface feature C. Hao, Beijing Institute of Astronautical, Fengtai Strict, Beijing (China)	(10.900) 11.6 Connectivity in the industrial Internet-of-things world T. Schildknecht, Schildknecht AG, Murr (Germany)	(10.907) 12.6 A Deep Learning Based System for Telemetry Accuracy Evaluation D. Zhang, Beijing Institute of Astronautical, Fengtai Strict, Beijing (China)



Exhibition parallel to

