



# 13th ESA Workshop on Avionics, Data, Control and Software Systems (ADCSS2019)

## Wednesday, 13 November 2019

### Terrestrial Technologies in Space Domain: Artificial Intelligence Applications in Space - Tennis Hall (Escape Building)

(09:00 - 10:40)

time	[id] title	presenter
09:00	[24] Artificial Intelligence: Nosce te ipsum	Mr PANAGIOTOPOULOS, Nikolaos
09:40	[25] CloudScout: In-Orbit Demonstration of In-Flight Cloud Detection Using Artificial Intelligence	Mr ESPOSITO, Marco
10:10	[26] Fast.ai - The Researchers New Machine Learning Toolbox	Mr KEANEY , Iain

### Terrestrial Technologies in Space Domain: Commercial Off The Shelf - Tennis Hall (Escape Building) (10:40 - 11:10)

time	[id] title	presenter
10:40	[27] Radiation characterization and functional verification of COTS components for space applications (RACOCO)	Mr KUHNHENN, Jochen

### Terrestrial Technologies in Space Domain: Time Sensitive Networking - Tennis Hall (Escape Building) (11:30 - 13:00)

time	[id] title	presenter
11:30	[28] Ethernet for Space with Time Sensitive Networking (TSN).	Mr WARTEL, Franck Mr NOTEBAERT, Olivier Mr KOLLIAS, Vangelis
12:00	[29] High QoS communication network: TSN?	Mr DELLANDREA, Brice
12:30	[30] An IPCORE for Deterministic Ethernet via Time Sensitive Networking (TSN) light implementation: challenges and opportunities	VALDÉS, Luis Medina Ms MELARA, Mariasole

### Terrestrial Technologies in Space Domain: Time Sensitive Networking - Tennis Hall (Escape Building) (14:00 - 14:30)

time	[id] title	presenter
14:00	[54] TTE configuration: Schedule and Synchronization, example through the Ariane 6 use case.	Mr CHENAIS, Etienne (TBC)

### Terrestrial Technologies in Space Domain: Open Instruction Set Architectures (ISA) in Space - Tennis Hall (Escape Building) (14:30 - 16:00)

time	[id] title	presenter
14:30	[53] Open Instruction Set Architectures (ISA) in Space	Mr WEIGAND, Roland
14:45	[31] Leveraging the Openness and Modularity of RISC-V in Space	Mr DI MASCIO, Stefano

15:15	[32] Introduction of Fault-Tolerant Concepts for RISC-V in Space	Mr ANDERSSON, Jan
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**Terrestrial Technologies in Space Domain: Open Instruction Set Architectures (ISA) in Space - Tennis Hall (Escape Building) (16:20 - 17:20)**

time	[id] title	presenter
16:20	[35] The RISC-V Klessydra Orbital Lab project	Mr BLASI, Luigi
16:50	[34] New arithmetic extensions for LEON2-FT	Mr MARTIN, Daněk

**Terrestrial Technologies in Space Domain: Modular System and Architecture - Tennis Hall (Escape Building) (17:20 - 18:50)**

time	[id] title	presenter
17:20	[36] DARWIN : centralized and modular avionic architecture	Mr SPIZZI, Pierre
17:50	[37] SpaceVPX (VITA 78), SpaceVNX (VITA 74.4) and the future of Open Architecture Space Systems: Both Large and Small.	Mr COLLIER, Charles