

16th ESA Workshop on Avionics, Data, Control and Software Systems ~ ADCSS2022

Wednesday, 26 October 2022

Technical Session: On-Board Processing, Co-processing and Software - Newton Conference Center (09:10 - 13:00)

-Conveners: Luis Mansilla; David Steenari

time	[id] title	presenter
09:10	[108] The Astral Intelligence Toolbox – A Framework for Assured On-board Data Solutions	IRELAND, Murray
09:40	[109] A novel multithreading approach to high performance artificial intelligence on-board	Dr GHIGLINO , Pablo
10:10	[110] Deterministic COTS based OBC for high performance and mixed criticality applications	HARI KRISHNAN, Prem Kumar
10:40	[111] Flash-based Mass Memories for space, flight heritage, perspective for the next generation and Airbus Space Electronics roadmap	LEROY, Benoit
11:10	Coffee Break	
11:30	[112] High Data Rate Interface Solutions for Earth Observation Payload Data Handling	Dr HAALA, Jens
12:00	[113] Innovations in electrical interfaces for visible imaging sensors to support future big data and high-speed missions.	Mr PRATLONG, Jerome
12:30	[140] Exhibitions and Networking	

Technical Session: GNC – new generation Gyro, Accelerometers, Inertial Sensors - Newton Conference Center (14:00 - 17:30)

-Conveners: Jeroen Vandersteen; Enrico Melone

time	[id] title	presenter
14:00	[115] iXblue - Astrix NS : The new, space-qualified, compact gyroscope and IMU of the Astrix family	DE TOLDI, Elliot
14:30	[120] TAS - SiREUS GM20, A Cost Competitive Gyro Solution for XEO	LYNE, Alex
15:00	[117] Astrix 200+ : Introducing a new development to push the known boundaries of Gyros performances.	DUPUIS, Aurélien
15:30	Coffee Break	
16:00	[118] Safran Colybris - Miniaturized high performance MEMS accelerometer	DE KONINCK, David
16:30	[119] SENER - NAVIGA, a modular space navigation unit for space transportation systems	Mr RAMIREZ, Sergio
17:00	[116] ARIETIS-NS: Preliminary qualification results of an innovative 3-Axis Space Rad-Tolerant Gyro	Mr TORASSO, Alberto

Thursday, 27 October 2022

Technical Session: Processor Architecture and Software Supporting Multi-Core - Newton Conference Center (09:10 - 13:00)

-Conveners: **Christophe Honvault; Richard Jansen**

time	[id] title	presenter
09:10	[127] NASA's Vision for Spaceflight Computing	Mr POWELL, Wesley A.
09:40	[122] Cobham Gaisler - GR740, GR765 and GR7xV: SPARC V8 and RISC-V for On-Board Computing	ANDERSSON, Jan
10:10	[125] Microchip - Space Processing solutions from Microchip ARM & RISC-V	GANRY, Nicolas
10:40	[126] NanoXplore - Linux goes to space in Ultra7	Mr CHOUAYAKH, Kassem
11:10	Coffee Break, Exhibitions and Networking	
11:30	[123] ADS - NG-Ultra, the European rad-hard multicore ARM system-on-chip + FPGA suitable for future space applications	POUPAT, Jean-Luc
12:00	[124] TAS - HW/SW experience with Integrated OBC featuring MultiCore SoC	CAPPELLUTI, Ivan SERRI, Paolo
12:30	[128] JAXA - Introduction of a Space Grade Micro Processing Unit for Future Space Applications	SAKAMOTO, Keita

Technical Session: Functional Verification - Newton Conference Center (14:00 - 17:45)

-Conveners: **Robert Blommestijn; Bénédicte Girouart**

time	[id] title	presenter
14:00	[134] Spacecraft LSI views on Avionics Functional Verification	Mr PACCAGNINI, Carlo Mr CAUDEPON, Jon Mr SCHEUBLE, Michael
	- [1] Thales Alenia Space-Italy view on the avionics functional verification from SVF to Flight Model	Mr PACCAGNINI, Carlo
	- [2] OHB-System view on the avionics functional verification	Mr CAUDEPON, Jon
	- [3] Airbus Defence and Space view on the avionics functional verification	Mr SCHEUBLE, Michael
15:30	Coffee Break	
16:00	[130] Focus on Nanosats & Smallsats: ESA lessons learnt & guidelines for Nanosat Avionics Functional Verification	HYSLOP, Andrew CANTIELLO, Ilario BLOMMESTIJN, Robert WALKER, Roger
17:15	[131] Focus on Verification for AI-based SW and AOCS/GNC systems	GIROUART, Bénédicte BLOMMESTIJN, Robert