

AR/VR for Space Programmes 2023

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Welcome...

...again in 2023

	2019	2023
Participants	97	134
Presentations	11	17
Exhibitions	8	14
Duration (days)	1	1.5



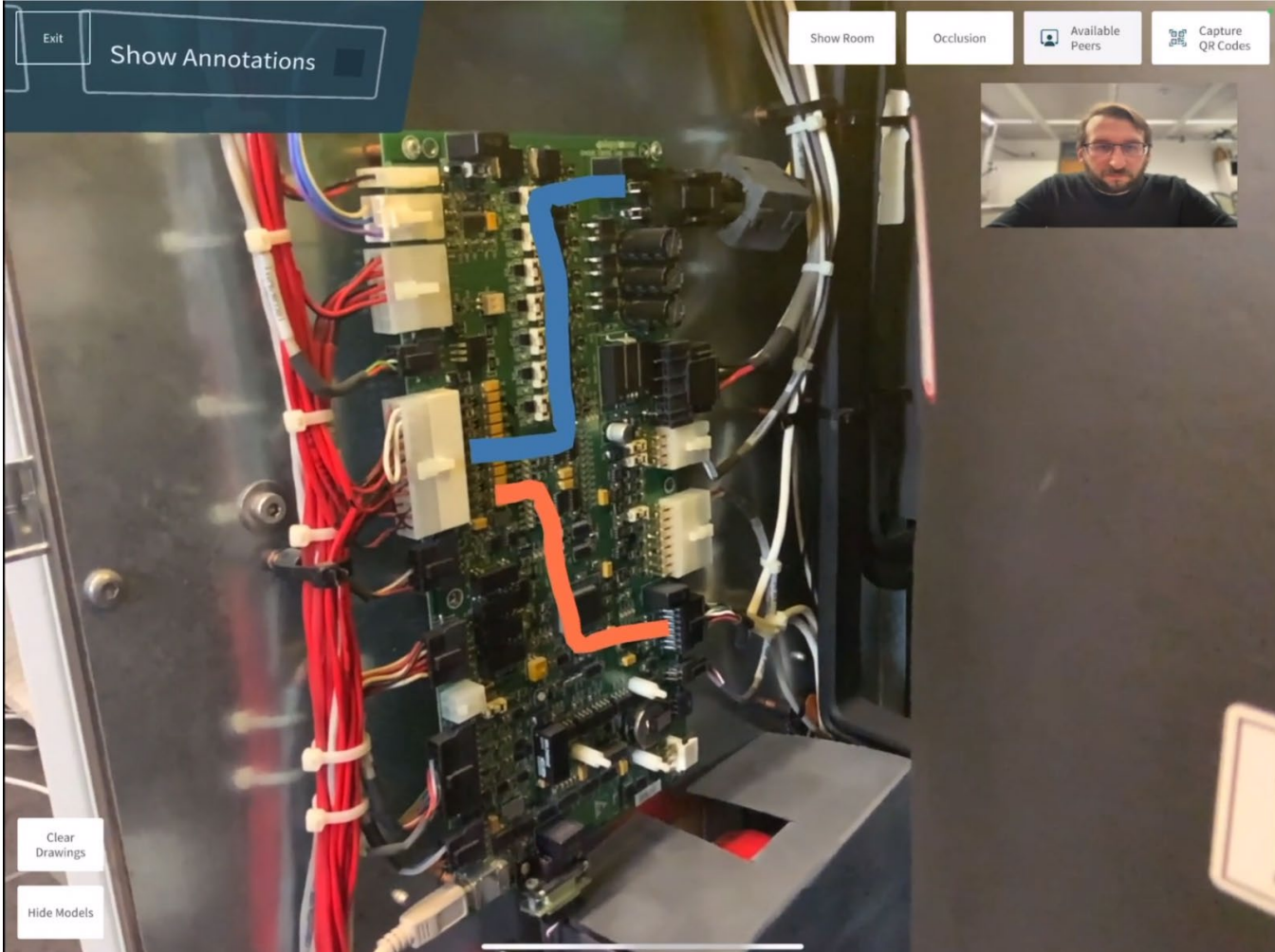
Recent Applications (I)

GRAVI-T: a new training system in VR as novel way to train astronauts to the ISS robotics arm, with half of the classes now held in VR, based on this ESA software



Recent Applications (II)

Remote Maintenance for Ground Stations and Telescopes application



Recent Applications (III)

ARCE: a system to aid and assist multidisciplinary and distributed design teams, by enabling visualization and editing of design models using Augmented Reality (AR)



Where is VR and AR today

- In 2021, according to Gartner augmented reality has matured so rapidly that it is no longer considered an “emerging technology” anymore. It has disappeared from their “hype cycle”.
(<https://www.immersivelearning.news/2021/01/08/augmented-reality-disappeared-from-gartners-hype-cycle-whats-next/>)
- The global market size for augmented reality (AR) and virtual reality (VR) is expected to reach \$297 billion by 2024, roughly ten times the \$30.7 billion market size in 2021, Statista predicts.
(<https://www.statista.com/statistics/591181/global-augmented-virtual-reality-market-size/>)
- The global virtual reality (VR) market size was estimated at USD 59.96 billion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 27.5% from 2023 to 2030.
(<https://www.grandviewresearch.com/industry-analysis/virtual-reality-vr-market>)
- We need to make sure that we use the technology available in the best possible way, and we must translate the benefits observed in other areas into the space domain and operationalise it.

What To Expect From This Workshop

Our Keynote Speaker Mahdi Gerailoo will address the hurdles faced in adopting these technologies in B2B services, such as scalability, user experience optimization, and integration with existing infrastructures.

At ESA, the following (high level) areas have been defined as application areas

- Assembly, Integration and Test (AIT)
- Astronaut Operations and Training
- Concurrent Engineering
- Earth Observation Data Exploration
- Product Assurance (PA)
- Space Science Data Exploration
- Spacecraft Operations

In addition:

- Related tooling (authoring)
- Interactive session on the way forward

**Let's demonstrate that
Space is still at the
forefront of using
exciting technology**