31st IAA SYMPOSIUM ON SMALL SATELLITE MISSIONS (B4) Late Breaking abstracts (LBA) (LBA)

Author: Dr. Aki Asahara GITAI USA Inc., United States

GITAI'S ROBOTIC INNOVATIONS FOR ON-ORBIT SERVICING

Abstract

In March 2024, GITAI successfully executed external vehicular robotics demonstrations at ISS. GITAI's goal is to offer on-orbit satellite servicing in both GEO and LEO. The company is actively developing inhouse robotic satellites capable of performing tasks such as rendezvous, docking, inspection, de-orbiting, and life extension services for customer satellites. In this external demonstration at the ISS, the GITAI 1.5-meter-long autonomous dual robotic arm system (S2) successfully executed all planned in-space servicing, assembly, and manufacturing (ISAM) tasks outside the ISS Bishop Airlock. In this presentation, the detail of this projects will be explained.

Following this achievement, and building on the successful ISS demonstration, GITAI is accelerating the in-house development of a robotic satellite for on-orbit servicing, targeting the commencement of operations in 2026. An overview of this next phase in GITAI's endeavor to enhance on-orbit servicing capabilities will also be presented.

 $Reference: \ https://gitai.tech/2024/03/19/gitai-completes-fully-successful-technology-demonstration-outside-the-iss/$