

Automation and Robotics in the German Space Program

*Sommer, Bernd (DLR)

Contact Author : Bernd Sommer, Dipl. Phys. MSE

Affiliation : German Aerospace Center (DLR)

Space Management

General Technologies and Robotics

Address : Königswinterer Straße 522-524

53227 Bonn/Germany

Email : bernd.sommer@dlr.de

Phone : +49(228) 447-542

Fax(optional) : +49(228) 447-718

Presentation Preference(oral or poster) : Oral

Keywords(no more than 5) : Germany, Programmatic

Extended Abstract

The presentation reflects the achievements since iSAIRAS 2014[1] within the Automation and Robotics sub-program of Germany's Space Program and provides a roadmap for future activities in the field. Together with the roadmap it describes the political, economic, and technological goals to be achieved for Germany within the coming years.

It will give an overview over work that was done in the areas of earth orbit infrastructure, space exploration, and technology transfer into terrestrial applications. In addition the presentation will summarize the status of the program's flagship projects iBOSS and the successor of the DEOS project, Capture.

In November 2015 DLR organized the SpaceBot Camp, a performance show and exhibition in the area of space robotics in Germany. The tasks to be accomplished were derived from a typical planetary exploration scenario. Ten teams from universities and research institutes gathered for 4 days, performing robot operations in an analogue set-up featuring a realistic mission environment. The presentation displays results and the lessons learned.

References

[1] http://robotics.estec.esa.int/i-SAIRAS/isairas2014/Data/Session%201/ISAIRAS_0148.pdf