

Curriculum Vitae

Personal Information

Name	<u>Stefan</u> Alexander Gärtner
Date of birth	1982-01-23
Nationality	German
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Work experience

2013-04 – present

Mission Control & Data Systems Engineer

German Aerospace Center DLR, Mission Technology Department,
German Space Operations Center GSOC, Oberpfaffenhofen, Germany

Responsibilities:

- development and deployment of Mission Operations system components for satellite missions
- development, implementation and deployment of software supporting satellite operations
- administration, support and maintenance of Mission Operations systems and software
- acceptance, deployment, setup and test of Mission Operations systems
- participation in international standardization efforts in Mission Operations

2020-03 – present

Project Lead and Project Systems Engineer for V3C project

- project management of the V3C generic mobile mission control center
- systems engineering for V3C: definition, design, development, implementation, deployment and validation

2015-01 – present

Software engineer for ProToS system

- design, engineering, implementation and support of the ProToS mission preparation and automation environment for multiple missions for DLR and ESA

2013-04 – present

Active participation in the CCSDS SM&C Working Group

- development and validation of CCSDS Spacecraft Monitor and Control standards, such as Mission Operations services, Message Abstraction Layer and technology bindings

2017-05 – 2019-12

Systems Engineer for HCC project

- research project for renewal of multi-mission ground systems and interfaces

2014-10 – 2018-03	<ul style="list-style-type: none"> ▪ design, engineering and implementation of Mission Operations and data interfaces for HCC ▪ software development for HCC infrastructure
2016-04 – 2016-07	<p>Project Systems Engineer for PAZ radar satellite mission</p> <ul style="list-style-type: none"> ▪ definition and management of mission data system development activities ▪ mission OPS support ▪ mission data OPS activities for satellite LEOP <p>Data Operations Engineer for BIROS earth observation mission</p> <ul style="list-style-type: none"> ▪ mission data OPS activities for satellite LEOP

Academic studies

2008-10 – 2012-11	<p>Research Fellow</p> <p>Ludwig-Maximilians-Universität Munich, Germany, Faculty of Physics</p> <p><i>Responsibilities:</i> Setup and operation of a high-power laser system for spectroscopic measurements of the negative ion of Positronium</p>
2002-10 – 2008-09	<p>Study of physics at the Technical University of Darmstadt, Germany, and the University of Saskatchewan, Canada</p> <p><i>Thesis:</i> "Gain calibration of the ALICE Time Projection Chamber" (Development of gain calibration algorithms for the time projection chamber of the ALICE experiment at CERN), prepared at the GSI Helmholtz Centre for Heavy Ion Research, Darmstadt</p> <p><i>Degree:</i> Diplom-Physiker (physics graduate, EQF level 7)</p>

Relevant publications

- S. Gärtner, A. Ohndorf (2022) *V3C: Kontrollzentrum auf einem Laptop*. Deutscher Luft- und Raumfahrtkongress 2022 (DLRK 2022), 27.-29. Sep. 2022, Dresden, Deutschland. DOI 10.25967/570268
- S. Gärtner (2022) *V3C: Mobile and compact control centre for small satellites*. In: Military Scientific Research Annual Report 2021 Defence Research for the German Armed Forces. Pages 50-51
- S. Gärtner, N. Harder, J. Hartung, M. Hobsch, M. Weigel (2022) *A Mobile and Compact Control Center for Quick Decentral Satellite Access*. In: Space Operations: Beyond Boundaries to Human Endeavours, Springer. Hrg. C. Cruzen, M. Schmidhuber and Y. Lee. DOI 10.1007/978-3-030-94628-9_19
- S. Gärtner, M. Geyer, S. Hackel, A. Hauke, C. O'Meara, Y. Wasser (2018) *Rethinking Ground Systems: Supporting New Mission Types through Modularity and Standardization*. In: 15th International Conference on Space Operations, SpaceOps 2018. DOI: 10.2514/6.2018-2597
- S. Gärtner, J. Hartung, M. Wendler (2014) *Implementation of CCSDS Mission Operations Services at the German Space Operations Center*. In: 13th International Conference on Space Operations. American Institute of Aeronautics and Astronautics. SpaceOps 2014. DOI: 10.2514/6.2014-1869.