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## **DLR – DAAD – Fellowships**

Fellowship No. 280

<b>Research Area :</b>	Space
<b>Research Topic:</b>	<b>Optical LEO-Links Standardization and Optical Feeder Optimization</b>
<b>DLR Institute:</b>	Institute of Communications and Navigation, DLR Oberpfaffenhofen
<b>Position:</b>	Postdoctoral Fellow
<b>Openings:</b>	1
<b>Job Specification:</b>	<p>The Optical Communications Group of the Institute for Communications and Navigation (part of the German Aerospace Center) investigates new technologies to increase the throughput in free-space optical links between ground stations and satellites. The orbital dynamic in communication with LEO satellites and the influence of the elevation-dependent turbulence of the atmospheric channel requires variable and adaptive mitigation techniques in links from and to space-born partners. Such technologies include physical link optimization and diversity schemes, as well as specialized forward error correction. To optimize these transmission techniques, we perform link measurements to verify channel models, and also use our experience to guide international standardization activities.</p> <p>This fellowship shall support the ongoing standardization work as well as improve further our understanding of the optical link in various scenarios like LEO-to-ground or Ground-to-GEO. Therefore theoretical and simulation work as well as channel measurements with and for various kinds of spacecraft communication partners are integral elements of this assignment.</p>

**Required Qualification:** PhD-Degree in Electrical Engineering / Information Technology, Physics, or similar fields with superior qualification  
extensive Matlab-skills, experience with lab- and meas.-equipment

**Advantageous Skills:** Project Management skills, experience with optical components and cameras, PhD in Free-Space Optical Communications

**English competence:** English fluent, German at least basic with willingness to improve

**Earliest Start Date:** 1 April 2017

**Application Deadline:** until position filled

**Further Information:** <http://www.dlr.de/kn>  
<http://www.dlr.de>  
<http://www.daad.de/dlr>

Please check directly with DAAD if you qualify, before applying.

Duration of this fellowship shall be minimum 12 months with an option for prolongation.