



## DLR – DAAD Fellowships

### Fellowship No. 500

**Research Area :** Space

**Research Topic:** Deep Learning for Remote Sensing Video Understanding

**DLR Institute:** Remote Sensing Technology Institute (IMF), DLR Oberpfaffenhofen

**Position:** Doctoral Fellow

**Openings:** 1

**Job Specification:** With more and more Earth Observation (EO) data available, there are variable perspectives and methods to understand the Earth. Compared to still images, remote sensing videos are able to provide consecutive observations. Therefore, the videos enable extensive investigations, such as event recognition, video segmentation, activity localization, and object tracking. Recently, various equipment like satellites, unmanned aerial vehicles (UAVs), and International Space Station (ISS) cameras, can produce massive remote sensing videos. Therefore, it is unrealistic for humans to screen such big data and understand their contents. The demand for automatically parsing these videos is surging.

In this project, the candidate is expected to develop methodologies for automatic interpretation of remote sensing videos. More specifically, the candidate needs to develop and train novel deep networks for a wide range of applications, such as video classification, anomaly detection, event localization and video summarization.

**Required Qualification:** Master related to computer science, geophysics, remote sensing or similar field; programming skills in MATLAB and Python; experience in aerial data analysis, deep convolutional neural networks and implementation methods; open communication and team spirit. The candidate should be able to work in a research team at the Remote Sensing Technology Institute of DLR in the frame of European and international projects and collaborate, carry out advanced theoretical

research, demonstrate practical results, and contribute to the technical and technological aspects of the projects.

**Advantageous Skills:** Advanced programming skills and knowledge in computer vision machine/deep learning; experience with TensorFlow or PyTorch.

**English competence:** See requirements on [www.daad.de/dlr](http://www.daad.de/dlr)

**High**

**Earliest Start Date:** 01.05.2021

**Application Deadline:** Until position filled

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