

## Senior Structural Analysis Engineer (m/f/d)

HPS GmbH, headquartered in Munich downtown, is a quickly growing space company and provider of key subsystems: highly accurate reflector antennas for telecom- and science applications, large deployable reflector subsystems (LEA) for earth observation and telecom, deployable drag-sail subsystems (ADEO) for de-orbiting small and medium sized satellites, thermal control hardware for spacecraft and landers, as well as plenty of high end components in the structural and thermal area.

HPS' subsidiary in Romania (HPS S.R.L.) focuses on metal structures, thermal hardware components and MGSE. A joint venture in Northern Bavaria (HPTex GmbH) produces highly reflective metal mesh for deployable antennas.

In all sites laboratories and integration halls provide space for assembly and integration activities, partly in clean environment. Currently, the HPS family concludes 2020 with a staff of 70 persons, whereas 45 are located in Munich.

HPS is well acknowledged at the European Space Agency ESA, the German Space Agency DLR and at all major players of the European space industry. Up to now HPS is onboard 20 flight missions, whereas eight are already in space. The most recent projects are:

- Ka-band antennas on the German Mission "Heinrich Hertz" and the ESA-mission "EUCLID",
- 25m<sup>2</sup> deployable sail to be qualified in Q1/2021 with an in-orbit verification in 2022,
- 8m large deployable reflector subsystem embarked on the Copernicus mission CIMR.

We have ramped up our team with more than a dozen new engineers in 2020 and **continue our rapid growth at HPS Munich** in the first quarter of 2021. The open position is dedicated to our

- **Large Deployable Reflector Subsystems (LDRS)** developments  
<http://www.hps-gmbh.com/portfolio/subsystems/entfaltbare-antennen-lea/> ,  
<https://www.youtube.com/watch?v=EyZeHdTAT6I> , as well as to our
- **Reflector Antennas flight projects** (<http://www.hps-gmbh.com/portfolio/subsystems/antennas/> )

We search for a senior structural analysis expert the following profile:

### Requirements:

A Master's degree (or equivalent) in aerospace or mechanical engineering.

**Minimum 7 years of experience** in the space industry working in the following topics:

- Advanced structural analysis including hand calculation and FEA methods covering static linear, nonlinear, modal, sine, random, shock, thermo-elastic and buckling analysis. Additional knowledge on acoustic analysis and kinematic analysis is welcome.
- Composite material analysis including laminate and sandwich panel structures.
- Detailed analysis and hand calculations such as structural sizing, threaded fasteners, inserts, laminate failure.
- Relevant experience in the use of the analysis software Femap/Nastran, additional knowledge on ANSYS and/or VAOne is welcome.

Good experience in space hardware mechanical testing as interface to the test house:

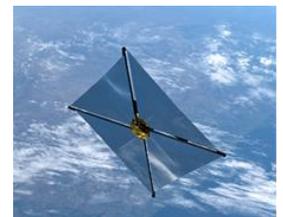
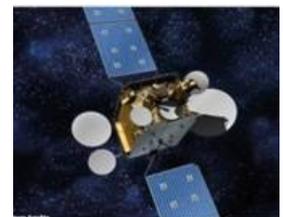
- Structural test prediction (incl. test limit levels definitions) and test reporting
- Attendance to vibration test and thermal cycling test. Also some experience in acoustic testing and rotor dynamics would be nice to have.

Good knowledge in space system engineering and space engineering standards (ECSS).

Good interpersonal and communication skills. Ability and motivation to report the analysis results in respective documentation and present the analysis results in meetings in front of the Customer.

Good knowledge in English (writing and speaking) and German (at least listening/understanding).

Ability to work effectively, autonomously and cooperatively with the structural and system engineering team, defining and implementing solutions and design recommendations to the design team.



**Possibilities:**

HPS offers the chance to significantly contribute to outstanding, highly visible space products and to actively take part in the growth of an international operating company. The HPS Group is a family and stands to a team-oriented, kind working environment.

As HPS is an SME (Small/Medium Enterprises), all HPS staff is continuously informed on company strategy items, can influence the path of HPS growth. Improvement suggestions are highly welcome.

You will have the chance to work very close with highly experienced engineers as well as to train young ones. You will be dedicated to one major project, but also involved in several other projects which makes daily life very diversified.

A four-days-per-week contract might be possible. Self-responsible flexibility in working time per day is our company culture. Documented in our Quality Management System is not only the goal to deliver high end technology and to maintain financial health of the company, but also to create very high degree of employee satisfaction.

Being part of HPS means to be involved in space missions, having hardware flying around the Earth or contributing to the European exploration of the Universe.

**We are looking forward to your application (preferred via e-mail):**  
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