



**DMRC**  
DIRECT MANUFACTURING RESEARCH CENTER

## Internship Opportunities with the [Direct Manufacturing Research Center](#) at [Paderborn University, Germany](#)

**Open to:** Advanced undergraduate or graduate (preferred) students in Mechanical Engineering, Materials Engineering, Engineering Physics, Chemical Engineering and alike.

**Applications:** April 15 for an internship from ca. Sept 1 – Dec 15 (fall term in Alberta)  
October 15 for an internship from ca. May 1 – Aug 15 (summer term in Alberta)

**Duration:** agreed individually (3 months at least)

*Unpaid, but free German classes offered*

*Intensive German Crash Course in September/March,*

*Semester Afternoon Course: Start in late October / late April*

The Direct Manufacturing Research Center is a joint effort of academia and industry striving to be one of the leading institutes in Additive Manufacturing. To achieve this, we drive cutting edge technology and innovation in Additive Manufacturing. Therefore, we collaborate between different academic disciplines and industry, combining our know-how to enable and provide new solutions along the whole value chain. We combine basic and applied research to produce novel insights and to open doors for new possibilities.

You will be involved in a currently running research project. We are working on both, applied and fundamental research projects. The main technologies currently under investigation are:

1. Polymer Parts:
  - Laser Powder Bed Fusion
  - Fused Filament Fabrication
  - Stereolithography
2. Metal Parts:
  - Laser Powder Bed Fusion
  - Filament Metal Printing

Fields of research may comprise

- Processing and qualification of new materials.
- Investigating elementary process steps in order to gain a better understanding for process improvement.
- Enhanced process technology (e.g. new heating concepts, process monitoring systems etc.).

- Designing new materials.
- Production of raw materials, particularly polymer powders with desired properties.
- Design rules and new concepts for functional integration.
- etc.

Based on your experience and interests we would select an appropriate topic for your internship. Communication language will be English – or German if you wish. A mentor will give technical assistance in your intern project and will help you to accomplish all formalities and will give you support in everyday problems.

We put much emphasize on high quality research resulting in high standard publications. Ideally, in case of a successful internship we will publish the results including you as a co-author of the paper. Moreover a good team spirit, close collaboration and positive working atmosphere are of great importance for us.

Paderborn is a pleasant, mid-sized town with [beautiful places](#) right in the [city center](#), within a 10-15min walk from the university campus. With roundabout 20.000 students and 150.000 inhabitants [Paderborn is a very lively city with lots of pubs and cultural events](#), as for example 'Libori' (the largest public festival in the region, 2 weeks end of July) or the Music Festival at the University (typically more than 20.000 visitors).

Students are welcome to apply for an internship of at least 3 months by submitting the following documents as a single PDF file:

- Letter of motivation (please state as well desired starting date & duration, fields of interest and other preferences, e.g. experimental or theoretical work)
- CV (tabular form)
- Transcript of records

For further questions or assistance please contact Dr. Steffen Jesinghausen

(  [steffen.jesinghausen@upb.de](mailto:steffen.jesinghausen@upb.de) )

**Paderborn University** is a high-performance and internationally oriented campus university with around 20,000 students. In interdisciplinary teams, we shape future-oriented research, innovative teaching and the active transfer of knowledge to society. As an important research and cooperation partner, the university also shapes regional development strategies. We offer our more than 2,300 employees in research, teaching, technology and administration a lively, family-friendly working environment with short decision-making paths and a wide range of opportunities.