



## PhD Position for Biocompatible Metal Surfaces

100 % / Limited for 3 years / Biel  
Start immediatly or by arrangement

### What you'll be doing here

- You write a PhD thesis on biocompatible metal surfaces (i.e. implants) with focus on surface finishings including 3D printed parts of different alloys
- Within the project, a plasma electrolyte-based surface treatment is being investigated that meets the high surface standards and lowers post-processing time and costs
- Your work will be devoted to the material characterization of the different alloys' surfaces and the plasma-process. A combined experimental-simulation approach will be used
- Based on the latest findings you will develop a model of the surface effects during the plasma-process that will lay the basis for better process control
- You will conduct the plasma-surface experiments in Biel, the surface analysis at the EMPA in Thun with metal parts from cooperating Swiss companies

### What you'll bring with you

- You hold a MSc in material science, mechanical engineering, physics or similar disciplines
- You are highly motivated and eager to learn and you like to combine theoretical considerations and models with experimental tasks
- A strong background in metal surfaces knowledge, good computer modeling skills, a strong interest in both theoretical and practical work are a premise
- Experience with metal surface characterization tools like SEM, EDX, AFM, etc. is a plus.
- Accurate work and very good communication skills in English and German or French round off your profile

### Department of Engineering and Information Technology

In the Department of Engineering and Information Technology we don't move with the times, mostly we are a bit ahead of them! We find it fascinating what benefits technology can have in people's everyday lives. We gain knowledge through research and joint projects with industry and business. This exchange brings about cutting-edge insights that we continually share with students.

### I'll be your guide through the application procedure

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### For job-specific queries

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