

## Industrial PhD

### “Neural Control of Leg Prostheses via an Osseointegrated Implant”

Collaborative project between Integrum AB, Chalmers University of Technology, and the Centre of Advanced Reconstruction of Extremities (C.A.R.E.) at Sahlgrenska University Hospital, Gothenburg University, in Gothenburg, Sweden.

Integrum AB is the pioneering and leading company in the field of osseointegrated limb prostheses. In close collaboration with the aforementioned academic and medical partners, our consortium has developed a cutting edge research program to help improve the lives of amputees by providing neural control of prostheses. This research gave successful results in 2013 when the first amputee in the world received a robotic arm prosthesis with direct connection to bone, nerves and muscles (TEDx talk: <https://youtu.be/V4UQU4392wM>). This Industrial PhD project aims to translate this technology to the lower extremities where new mechanical challenges have to be met due to the higher loadings develop during activities of daily living. Implant design, development and testing will be an important part of this project along with appropriate control strategies.

#### Positions summary

- Full time employment as Industrial PhD for 4 years. Initial test period of 3 months.

#### Qualifications

- Master level degree in solid mechanics or biomechanics/mechatronics if experienced in implants or prosthetics. Excellent academic record is a requirement. R&D or industrial experience will be prioritized.

#### Absolutely required knowledge in:

- CAD
- FEM
- Biomechanics

#### Skills:

- Independent work
- Results oriented
- Self-driven

#### Applications

Please send a cover letter describing your experience (maximum 1 page), CV, and academic transcript to Dr. Max Ortiz C. at [max.ortiz@integrum.se](mailto:max.ortiz@integrum.se)