

# **Paid Internship at Cemex Innovation Holding**

Employment based in Switzerland at Cemex Innovation Holding ag; Documents required for application: Personal CV, personal letter of motivation, professor's letter of recommendation, validation of English fluency.

#### Cemex Innovation Holding:

Established as Cemex's Global Research Center in 2001 and located in Brügg, Berne, Switzerland, it aims to ensure CEMEX's industry leadership and strong market position by developing innovative technological, engineering and business solutions for the continuous growth of CEMEX, as the leader in the building materials industry across the globe. Its human capital is comprised of multidisciplinary backgrounds from research scientists to engineers, business professionals and commercialization experts representing 26 nationalities. It also has partnerships with a Network of leading research institutions and universities in Switzerland and the rest of the world.

# Position purpose

Global Research and Development Department is a core team inside CEMEX Innovation Holding. The aim of the team involves research and development of new products and solutions for the different challenges that CEMEX has as a key global corporation in the construction industry, as well as specialized technical troubleshooting for all CEMEX operations, mainly: Cement, Concrete, Aggregates, Admixtures and other Building Construction Products.

PROJECT TO BE DEVELOPED: Construction 4.0: BIM tools Development.

## Activities:

- Design and create tools (software plug-in/web) for CEMEX digital platform to enlarge and enhance User Experience;
- > Interface with current transactional systems such as SAP and CEMEX GO;

- > Audit current IT BIM solutions and enrich the data protection system;
- Data analysis, machine learning and deep learning techniques, aimed at qualitative and quantitative characterization of concrete;
- Database and server management.

### A Challenges:

The student will deal with a stimulating and dynamic environment, he/she will work on a relevant topic in the construction field by applying the Building Information Modeling (BIM) methodology within the Architectural, Engineering and Construction Industry.

#### What can you gain?

- The student will generate valuable skills in implementing IT solutions for engineering software by enabling Cemex BIM solution;
- Evaluate IT solutions through Customer feedback management;
- > Understand BIM method working principles;
- Proposal and validation of data protection system;
- Dual development of BIM platform in professional software and web environments; The student can use the topic of his research internship experience to write his thesis after the conclusion of his internship and together with his thesis advisors, can also publish an article on a refereed journal.

