

INTERSHIP POSITION FOR STUDENTS IN SWITZERLAND AT CEMEX INNOVATION HOLDING



INTERNSHIP POSITION IN CHEMICAL ENGINEERING

DATE: From the 5th day of August 2024 to the 25th day of July 2025

AREA WITHIN THE COMPANY THE STUDENT WILL PERFORM HIS INTERNSHIP: Global R&D department, R&D Laboratory

The Global R&D department is a core team inside CEMEX INNOVATION HOLDING based in Switzerland. The aim of the team involves research and development of new products and solutions for the different challenges CEMEX has as a key global player in the construction industry as well as specialized technical troubleshooting for all CEMEX operations, mainly Cement, Concrete, Aggregates and Admixtures

POSITION PURPOSE:

- The position focuses on a project related to scaling up grinding process which involves the obtention of energy consumption and efficiencies calculations.
- Basic knowledge about mechanical components and design is needed

PROJECT DESCRIPTION (Mechanical activation):

- Development of novel methodologies to activate pozzolanic and cementitious systems through the evaluation diverse grinding technologies.
- Evaluation on the effects of different chemicals and grinding conditions in the reactivity and quality of novel grinding methodologies and materials.
- Development of diverse methodologies or techniques for the use in product development and specialized technical troubleshooting.
- Support on administration and H&S activities such as writing, updating, creation of SOP's.
- Support on calibration, maintenance and use of analytical equipment.

STAFF INVOLVED:

Researchers and Manager from the CX Global Research Laboratory and the entire PDCT department

SOFT SKILLS: Open and flexible, able to work on diverse teams

REGION THAT WILL BE SUPPORTED: Worldwide



INTERSHIP POSITION FOR STUDENTS IN SWITZERLAND

AT CEMEX INNOVATION HOLDING



INTERNSHIP POSITION IN CHEMICAL ENGINEERING/NANOTECHNOLOGY

DATE: From the 5TH day of August 2024 to the 25th day of July 2025

AREA WITHIN THE COMPANY THE STUDENT WILL PERFORM HIS INTERNSHIP: Global R&D department, R&D Laboratory

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POSITION PURPOSE:

- Assess and develop technologies to use and fixate CO2 in diverse materials.
- Work on environmental management and sustainability initiatives, developing methods to reduce emissions and improve waste management.
- Support the diverse characterization activities performed in the Global R&D laboratory.
- Troubleshoot when issues or challenges arise during the production of cement or concrete
 casting process; diagnose problems; and implement solutions to maintain the quality of the
 concrete.
- Innovate and find new ways to improve cement production, develop alternative materials, or enhance sustainability.
- Conduct tests and analysis to ensure that the cement product meets the required specifications and standards.

PROJECT ACTIVITIES:

- The position envisions work in 2 basic projects and areas:
 - The first involves the development of technologies and materials to fix CO2 coming from cement industry (60%).
 - The second involves determining efficiencies and assessing the materials and technologies that are viable for scaling up with the use of analytical equipment (XRF, XRD, ICP, GC-MS, TGA, FTIR, etc.)
- Participation will also be required in the different services provided by the CEMEX Global Research Laboratory

STAFF INVOLVED: Cemex Global R&D department, as well as the manager of the laboratory and the VP of Innovation.

SOFT SKILLS: Open and flexible, able to work on diverse teams, responsible and organized.

REGION THAT WILL BE SUPPORTED: Worldwide



INTERSHIP POSITION FOR STUDENTS IN SWITZERLAND AT CEMEX INNOVATION HOLDING



INTERNSHIP POSITION IN CHEMISTRY/CHEMICAL ENGINEERING

DATE: From the 5th of August 2024 to the 25th of July 2025

AREA WITHIN THE COMPANY THE STUDENT WILL PERFORM HIS INTERNSHIP: Global Operations and Technology department (GO&T)

NAME OF THE PROJECT: Analytical Reliability Program (ARE)

POSITION PURPOSE:

The Global Operations and Technology department (GO&T) is a core team inside CEMEX INNOVATION HOLDING AG based in Switzerland. The GO&T team handles and / or supports all production technology related projects of the company worldwide. Its mandate is two folded: On one hand it provides high level support to all CEMEX cement operations worldwide for the design and deployment of novel collaboration practices and knowledge management tools, and on the other, it is responsible to propose and develop new materials and technologies and to provide insight and evaluation of available technologies with regards to the relevancy to the company.

PROJECT ACTIVITIES:

- Support the coordination and preparation of the laboratory reliability assessments according to the Analytical Reliability (ARE) program results to achieve higher reliability in our laboratories.
- Support the coordination of an execution action plan with the program representatives, to ensure integral problem solving within the cement plants
- Perform remote Analytical Reliability (ARE) assessments to improve overall performance.
- Propose actions to be followed by the operations and its completion

STAFF INVOLVED:

Researchers and Manager from the Cemex Global Research Laboratory and the entire GO&T department

REGION THAT WILL BE SUPPORTED: Worldwide



INTERSHIP POSITION FOR STUDENTS IN SWITZERLAND

AT CEMEX INNOVATION HOLDING



THE CORPORATION:

CEMEX (<u>www.cemex.com</u>) is a leading sustainable construction materials and solutions company with innovation and sustainability at its core working to create value for its stakeholders. We deliver high-quality products and services that exceed our customers' expectations through our vertically integrated approach to production and distribution, combined with our expertise in cement, readymix concrete, aggregates, and urbanization solutions.

Cemex's global presence is strategically positioned across the Americas, the Caribbean, Europe, Africa, the Middle East, and Asia. Its global trading network encompasses close to 100 countries within the portfolio of its four core businesses.

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.

INTERNSHIP COMPENSATIONS:

a) Academic

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.

b) Economic

A monthly Gross salary of 2,475 Swiss Francs/month will be paid if the student is enrolled in a bachelor's program, 2,885 Swiss Francs/month if enrolled in a master's program, or 3,600 Swiss Francs/month if in a PhD track.

DOCUMENTS REQUIRED FOR APPLICATION:

- Personal CV
- Personal letter of Motivation

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