





# **MOOLs : Massive Open Online Laboratories**



**Smart Devices + Lab Servers** 

Hosting environment MOOC

## Infrastructure of online remote laboratories

## Goals

Massive Open Online Laboratories is a collaborative project with the aim of sharing the expertise and infrastructures of the two Swiss partners EPFL and HES-SO with several institutions from the global south.

The five pillars of the project are:

- 1) Establishing a strong north-south institutional cooperation for an enhanced joint education and research activities as well as technology transfer, within UN sustainable development goals,
- 2) Developing and implementing innovative and collaborative activities through an open, sustainable and widespread remote laboratories platform within digital technologies, e-learning environments and MOOC infrastructures,
- 3) Enhancing pedagogical and student-centered learning and teaching methodologies through remote experimental activities,
- 4) Reducing costs of laboratories in higher education by sharing the available infrastructures, resources and equipment of Swiss institutions for a large-scale use in engineering education,
- 5) Promoting the exploitation of the European infrastructures for inquiry learning with online labs developed in FP7 and H2020 under the EPFL technical coordination and including a repository (golabz.eu) and an authoring tool for the creation of open educational resources integrating on line labs (graasp.eu).

#### The Swiss parties of the project





EPFL : Ecole Polytechnique Fédérale de Lausanne

HES-SO : University of Applied Sciences and Arts Western Switzerland

#### The south partners

- Amirkabir University of Technology, Iran Tehran
- University of Kurdistan, Iran Sanandaj
- Université de Abdou Moumouni, Niger Niamey
- Lebanese American University, Lebanon Byblos
- Université de Djibouti, Djibouti

### **Sustainable Development Goals**

