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COFER MOOLs

Massive Open Online Laboratories

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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
- Lebanese American University, Lebanon - Byblos
- Université de Abdou Moumouni, Niger - Niamey
- Université de Djibouti, Djibouti

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Description

- 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 main challenge of the project is to develop innovative education activities through a collaborative network deploying remote laboratories in electrical, mechanical and control engineering, at a large scale within MOOC infrastructures.

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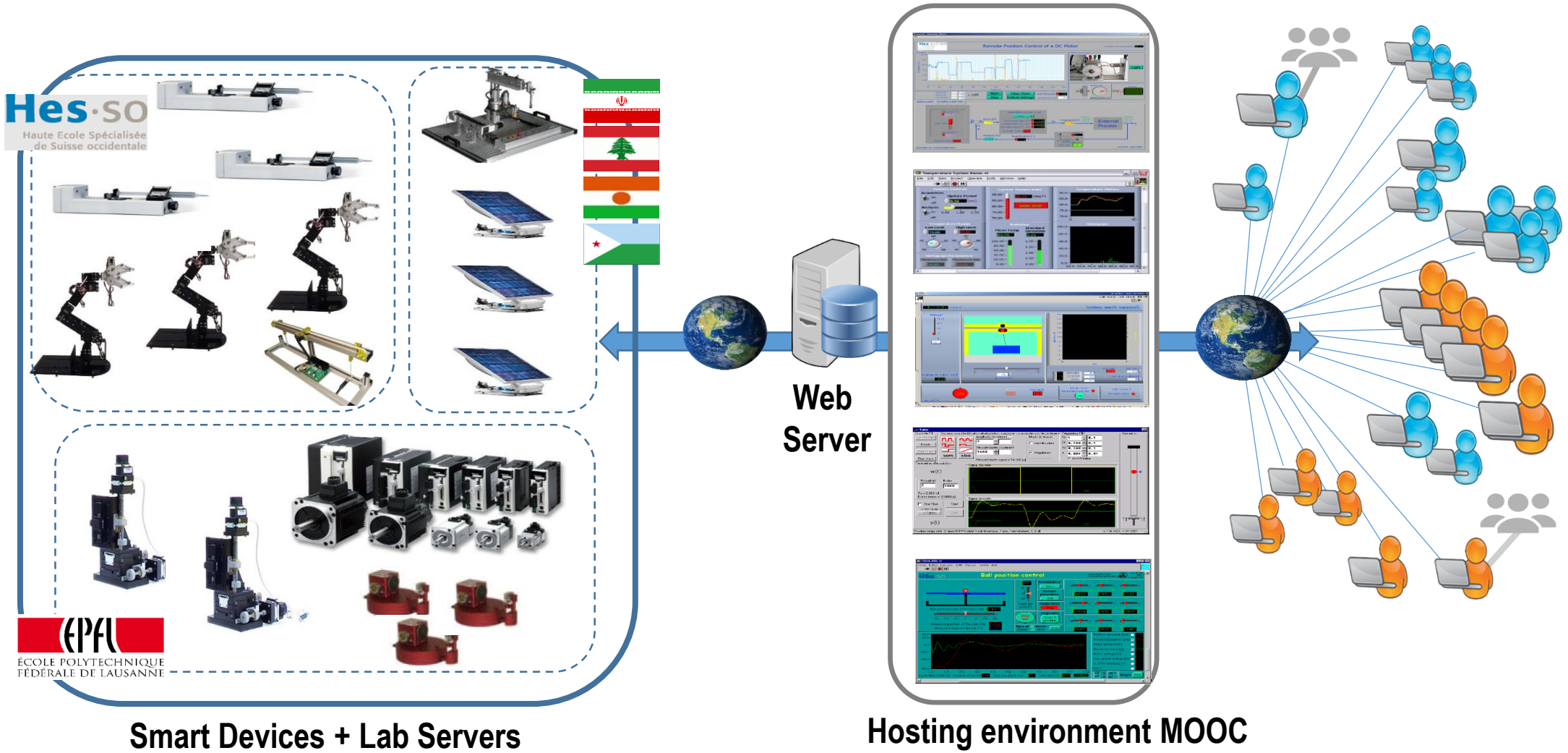
Infrastructure of online remote laboratories



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Goals

1) Establishing a strong north-south cooperation for a joint education activities as well as technology transfer, within UN sustainable development goals,

2) Developing innovative and collaborative activities through an open 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 Swiss infrastructures for a large-scale use in engineering education,

5) Promoting the exploitation of the European infrastructures in online labs, developed in FP7 and H2020, under the EPFL technical coordination.

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Sustainable Development Goals

SDG 4 – Quality education: The project promotes online learning opportunities to improve quality education in southern countries. It contributes to promote STEM (Science, Technology, Engineering, Mathematics) practices as well as ICT skills among young people.

SDG 5 – Gender equality: The project proposes equal training and educational opportunities to promote women in science and technology. Accordingly, we have chosen countries like Iran, Djibouti, Niger and Lebanon where gender inequality is one of the main issues.

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Sustainable Development Goals

SDG 9 – Industry, innovation and infrastructure: The project facilitates sustainable technological infrastructures in south countries through educational support and technological assistance. It increases the access to information and communication technologies to support economic development.

SDG 10 – Reduced inequalities: The project offers favorable access conditions to education facilities for young students in engineering schools of least developed and developing countries. It upgrades education services, affording remote infrastructures and equipment not available in south countries.

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Sustainable Development Goals

SDG 17 – Partnership for the goals: Through a collaborative network, the project promotes the development, transfer and dissemination of engineering education in southern countries. The main objective is to mobilize and share knowledge, technology and resources, to support the sustainable development goals.

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Thank you

for

your attention