



The logo for NIDays Engineer Next is centered on a blue gradient background. It features the text "NIDays" in white, enclosed within a white rectangular border. To the right of this, the words "ENGINEER" and "NEXT" are stacked vertically in a large, bold, white sans-serif font. A yellow graphic element, consisting of three parallel lines forming a stylized arrow or chevron shape, is positioned between the two words. The background is decorated with several diagonal stripes: a wide green stripe, an orange stripe, and a red stripe on the left side; and several blue stripes of varying shades on the right side.

NIDays **ENGINEER**
NEXT

What is Multisim Live?

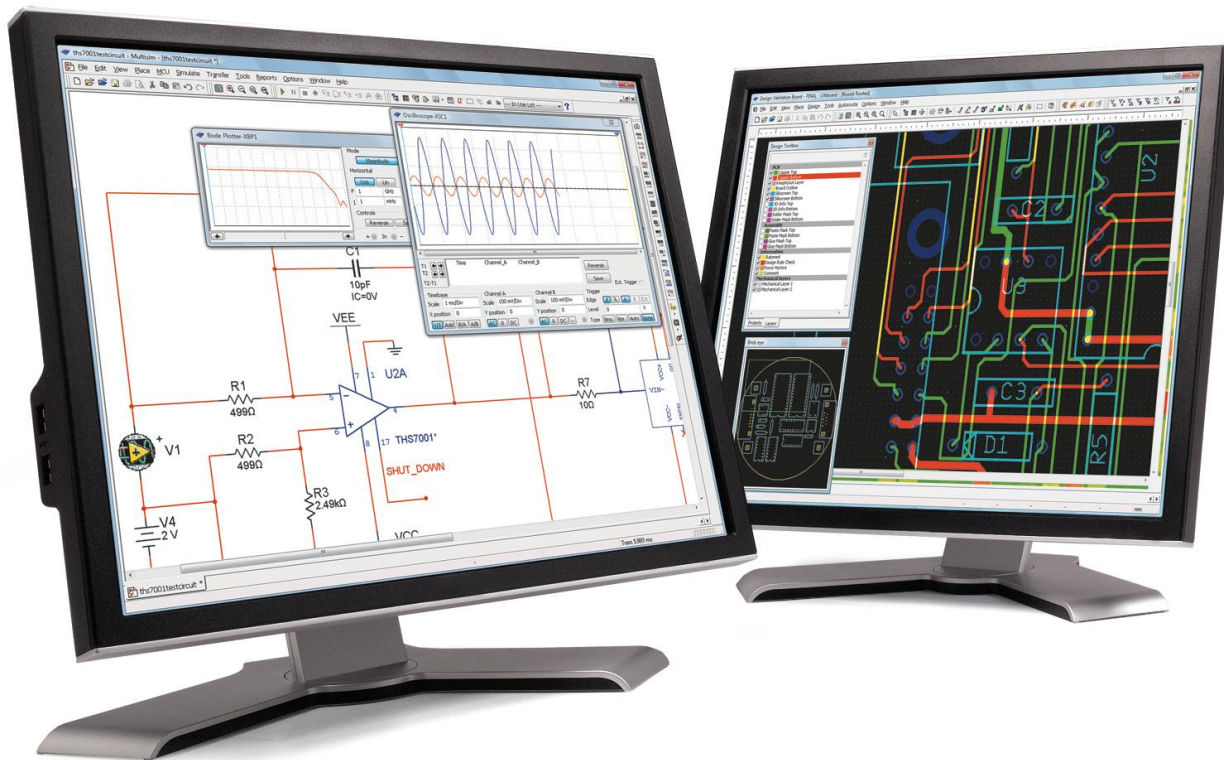
Maha Moatemri

Academic Account Manager

NI Switzerland

NI CIRCUIT DESIGN SUITE

- ▶ Multisim
- ▶ Ultiboard



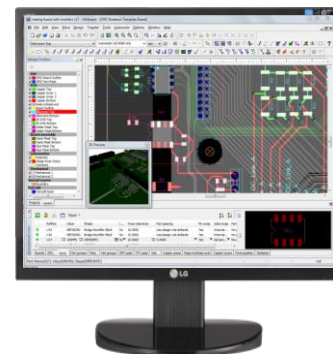
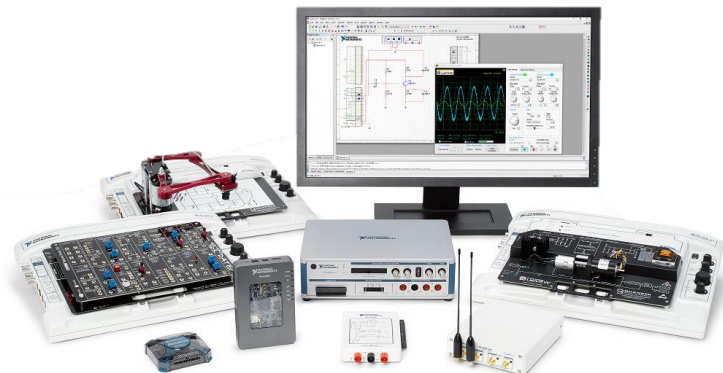
Solution for Teaching Analog, Digital, and Power Electronics

Built for educators, to enable to most effectively teach analog, digital, and power electronics



Easy transition from theory to practical engineering with full hardware integration

Full integration with Ultiboard professional PCB layout environment

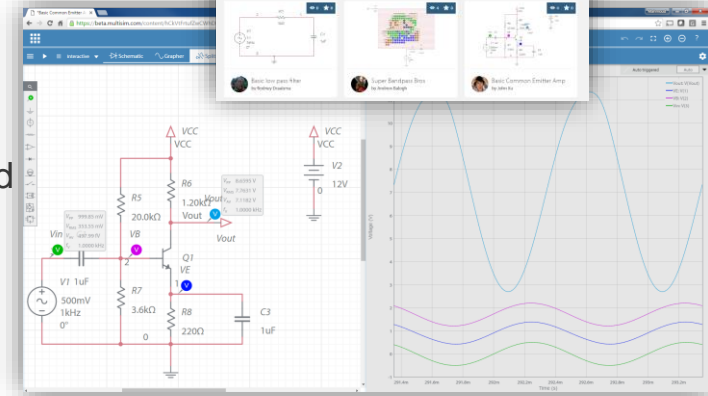
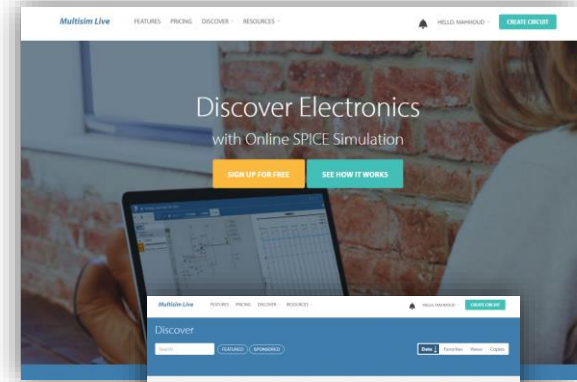


MultisimTMLive

Online, mobile-friendly and touch-optimized extension of Multisim

What is Multisim Live?

- Browser-based circuit simulation built on the same SPICE simulator in Multisim
- Modern-looking multi-platform that has been optimized to work on touch screens and smart phones
- New interactive functionality allows users to modify component values while simulation is running
- Online repository of thousands of circuits to simulate and modify.
- Save your circuits online to share with peers or create a group and post circuits to that group
- Two editions of Multisim Live: free and premium
 - Premium is part of the ASL



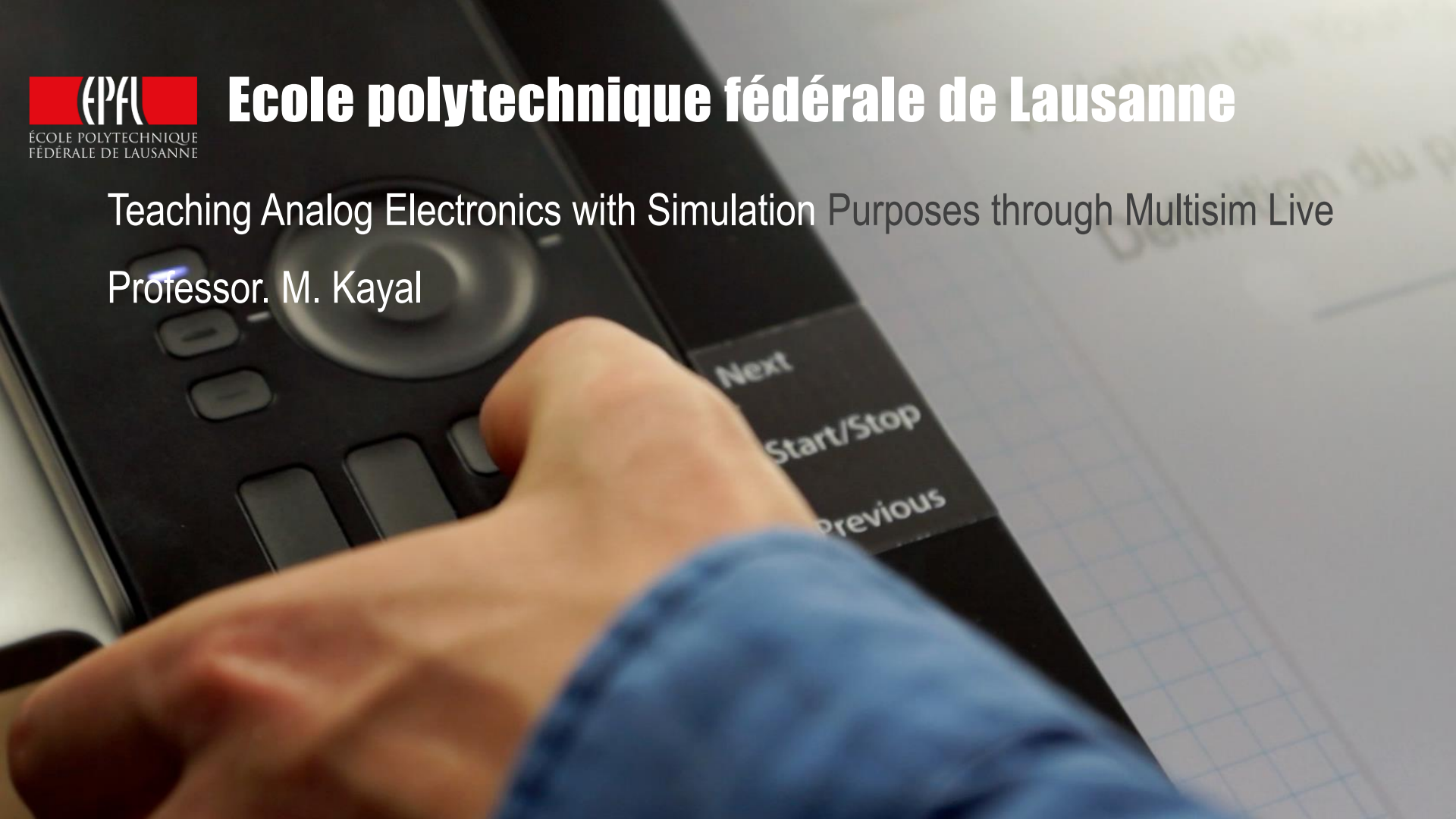


ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

Ecole polytechnique fédérale de Lausanne

Teaching Analog Electronics with Simulation Purposes through Multisim Live

Professor. M. Kayal



Introduction

- The Massive Open Online Courses (MOOCs) at EPFL.
- MOOCs EPFL Vision.
- Analog electronics education challenges.
- Course structure and Multisim Live.
- Demonstration.

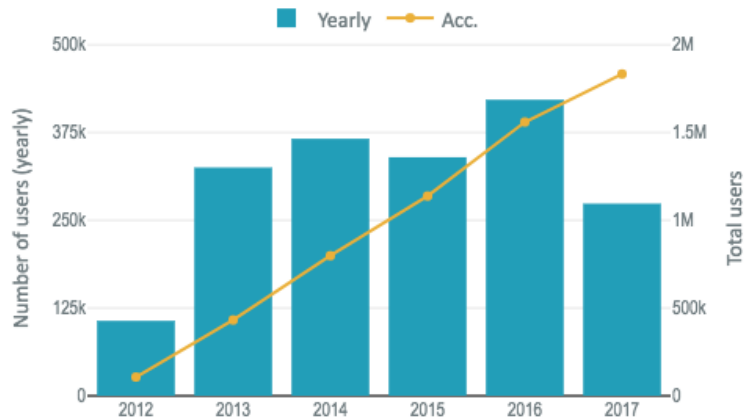
Catalogue

75 Courses (> 27 coming)

<http://moocs.epfl.ch>

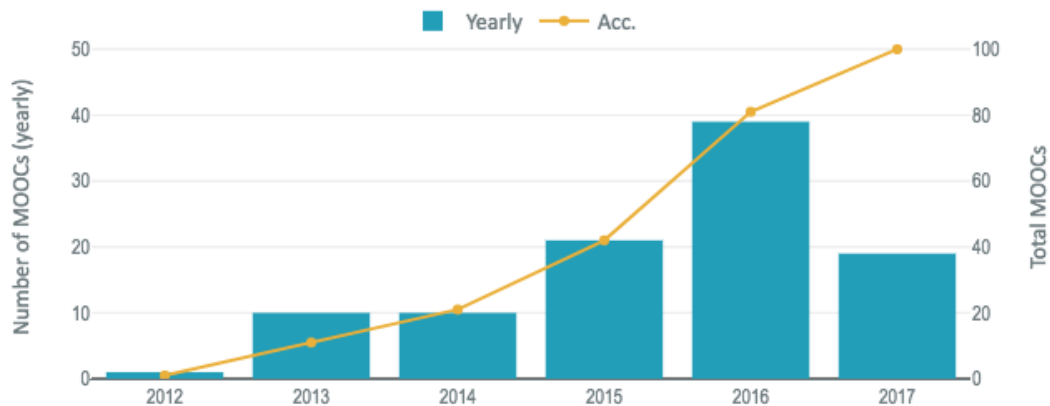
MOOC Registrations and number of courses

Number of registrations per year



1'815'471 Registrations
97'510 Passed

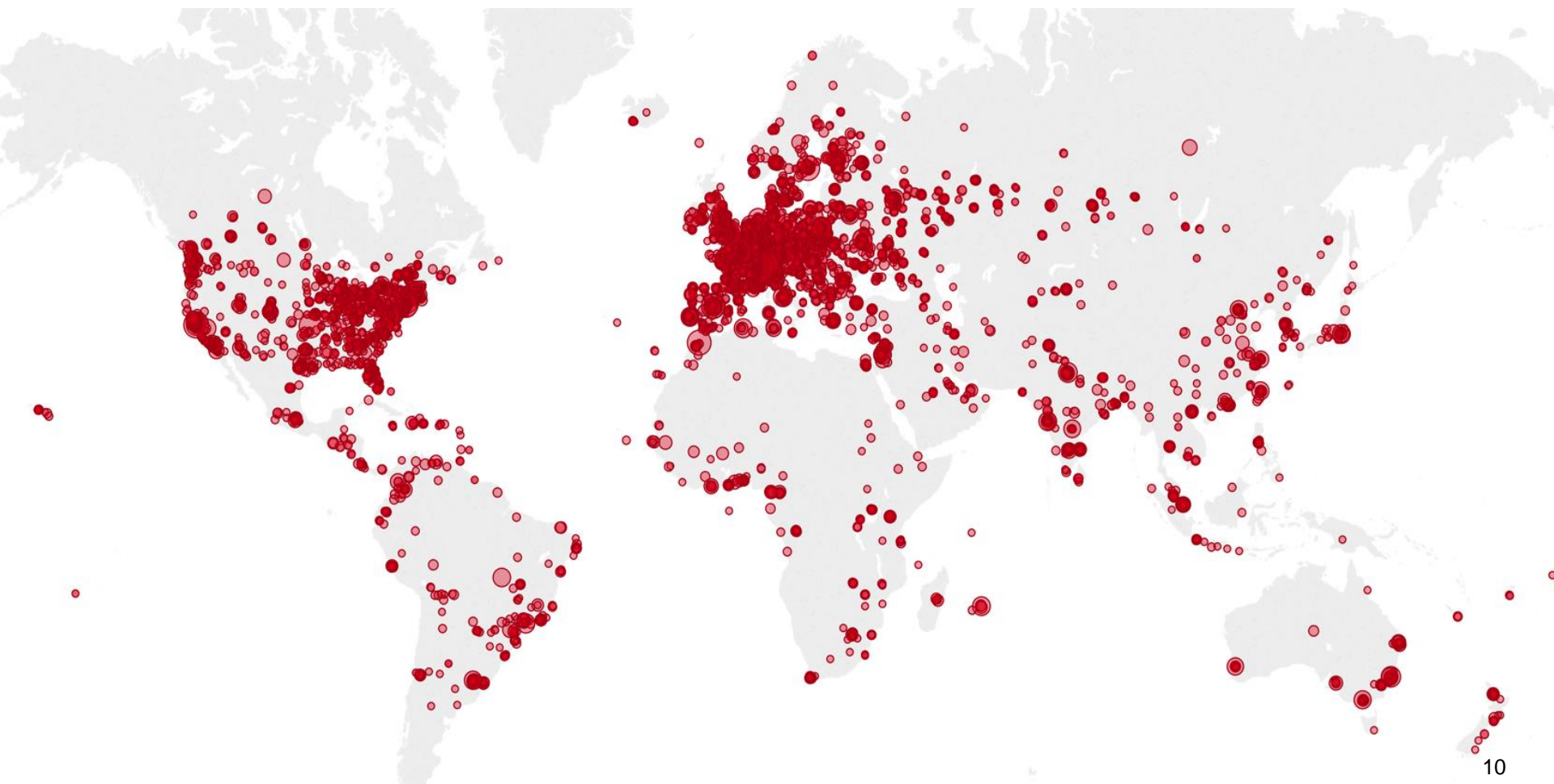
MOOCs launched each year



77 Courses Online
35 Courses In Preparation

EPFL Online Education Alumni

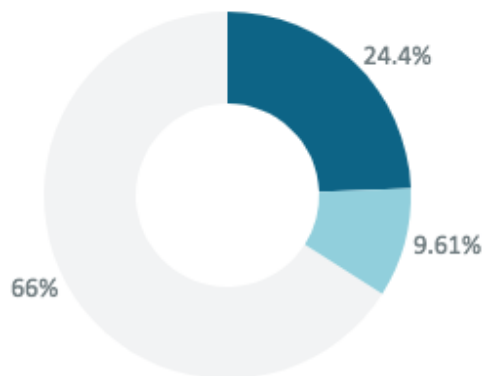
[97'510 participants passed a MOOC]



Demographics

Student status distribution

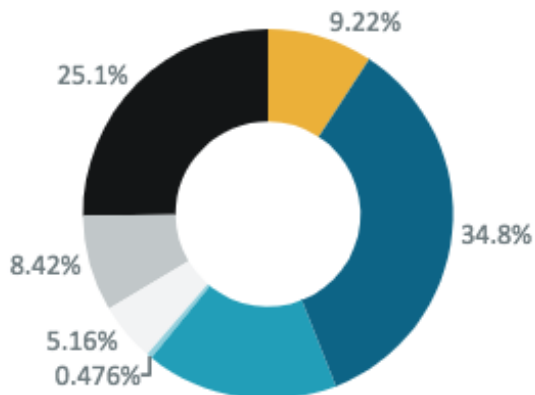
for all MOOCs combined



- Full-time students
- Non-students
- Part-time students

Geographical distribution

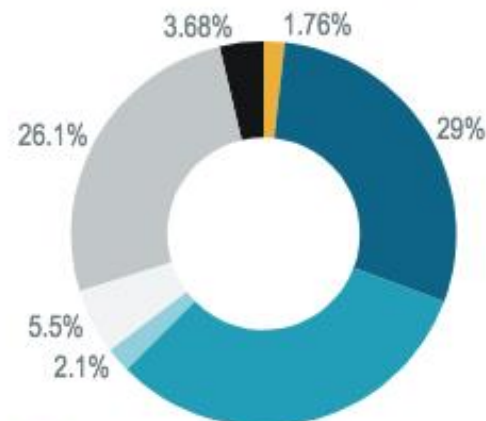
for all French MOOCs combined



- Switzerland
- Africa
- South America
- North America
- Rest of Europe
- Asia
- Oceania

Geographical distribution

for all English MOOCs combined

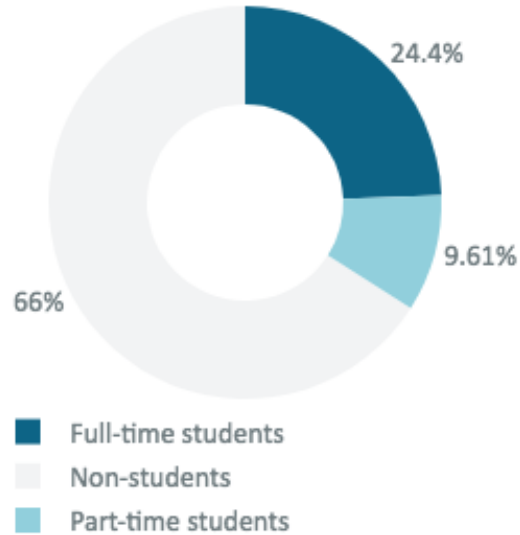


- Switzerland
- Africa
- South America
- North America
- Rest of Europe
- Asia
- Oceania

Employment status

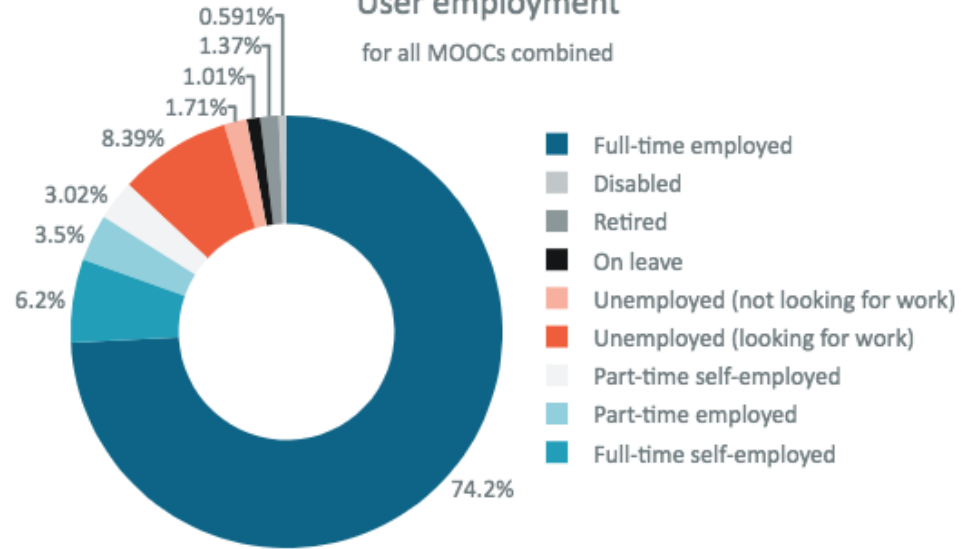
Student status distribution

for all MOOCs combined

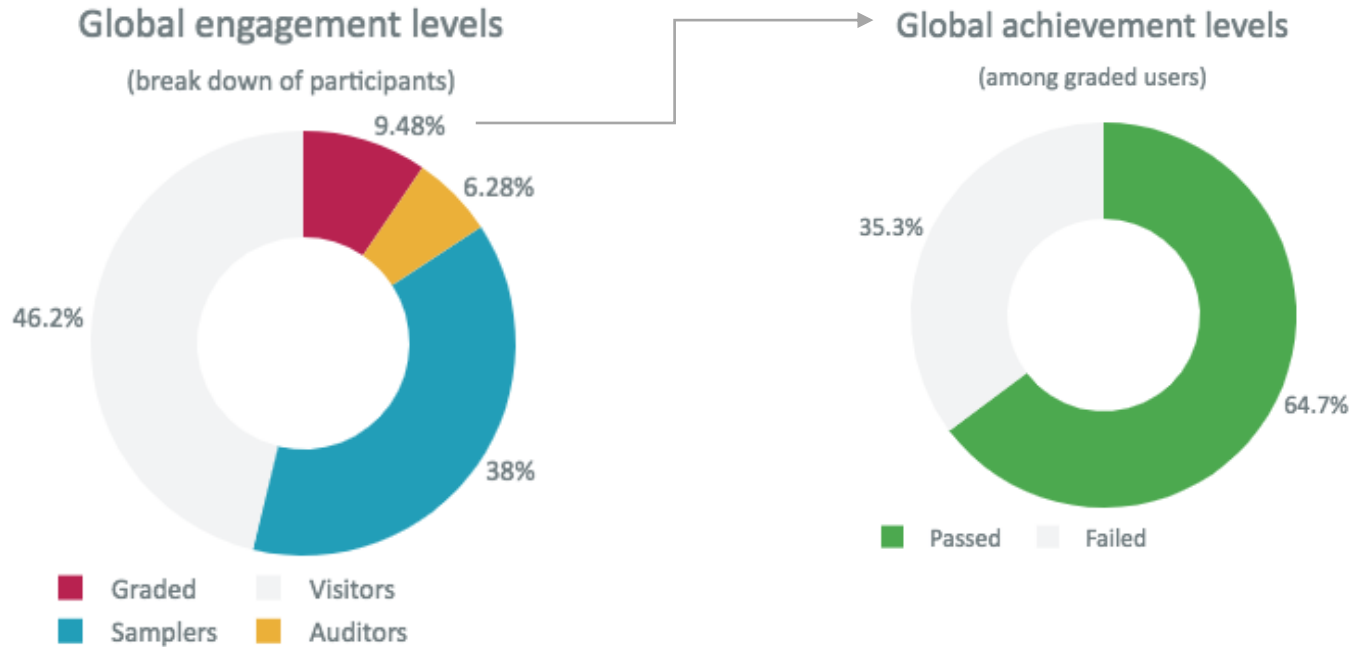


User employment

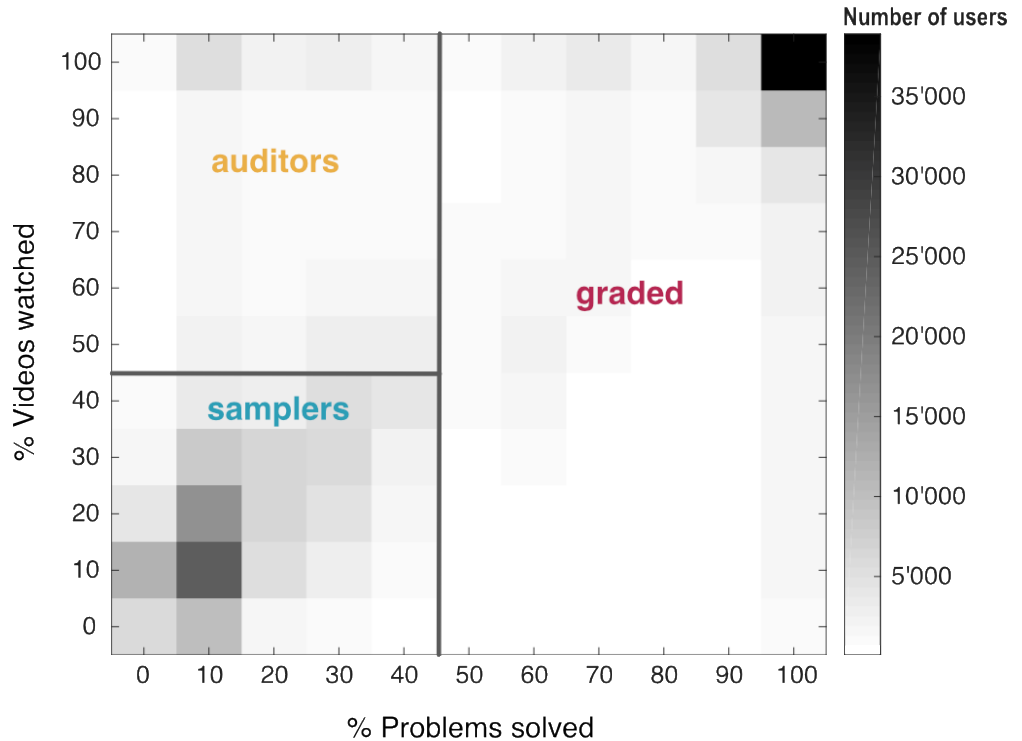
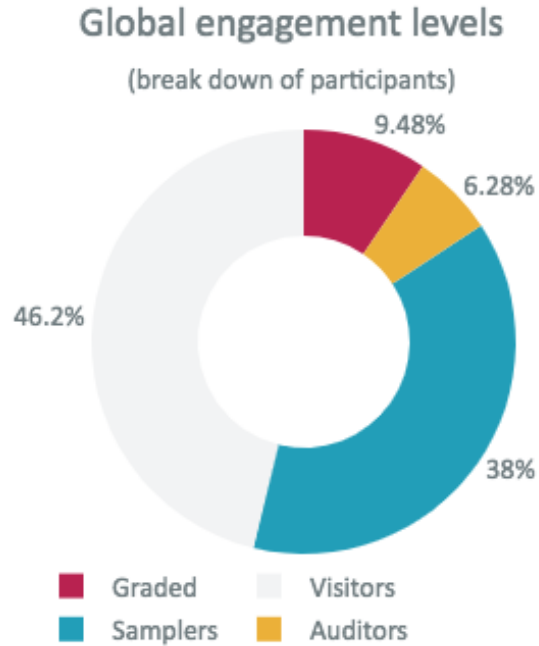
for all MOOCs combined



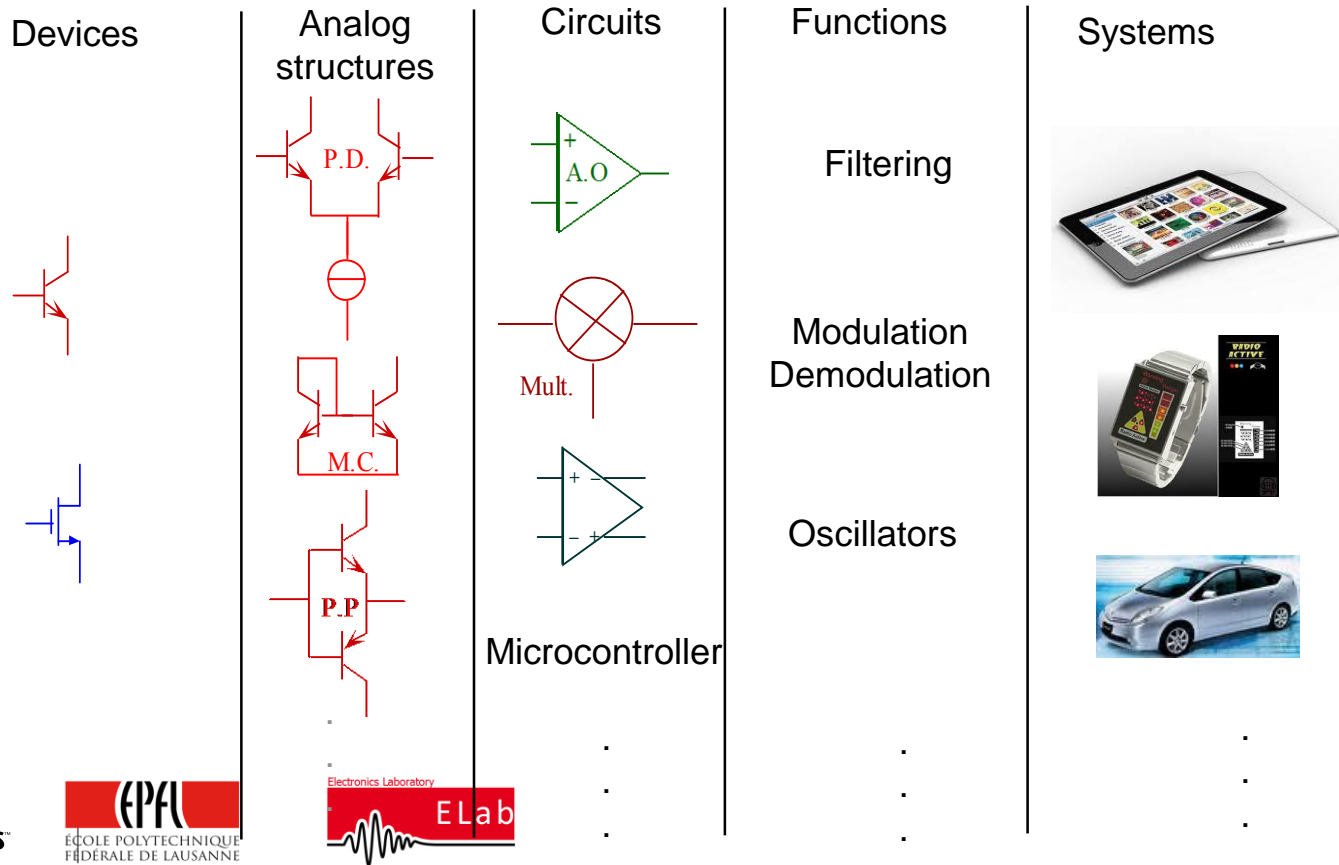
MOOCs : Engagement and Achievement



MOOCs : Engagement Levels

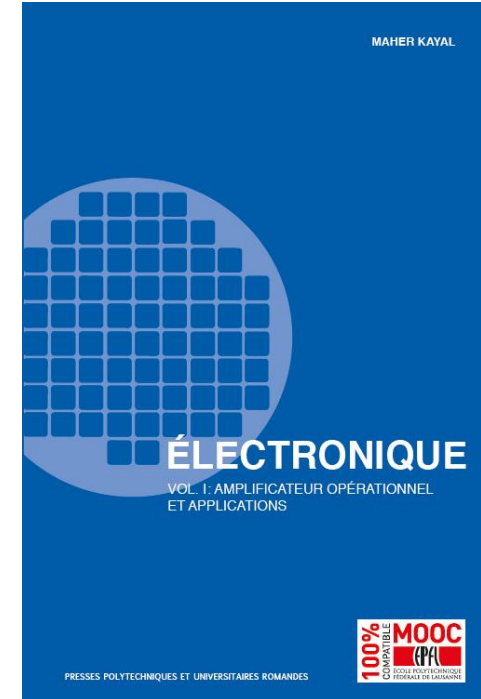


Electronics teaching



Course structure for 2nd year of engineering school

- Part one (Electronics I) :
 - Op. Amp applications:
 - Linear functions
 - Non-linear functions
- Part two (Electronics II) :
 - Transistors
 - Analog structures
 - Main analog circuits



MOOC: Electronics II demonstration

https://courses.edx.org/courses/coursev1:EPFLx+Electroni2X+2017_T1/course/

Conclusion

- Large audience with MOOCS.
- Possibility of sharing a long teaching experience.
- Web simulator brings a real added value for teaching and can replace “in some condition” the lab experiences.