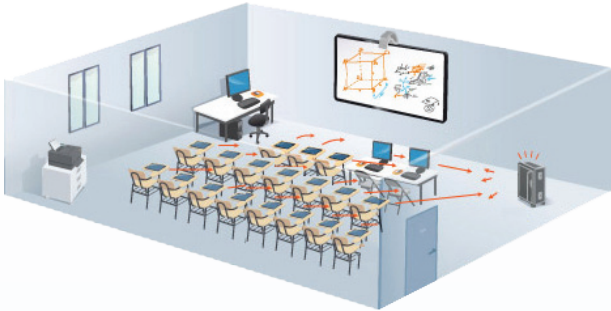


# Context

## SmartClassroom

Several projects for the classroom of the future



All the documentation about our project can be found on the page «SmartClassroom», in the Projects 2014-2015 page, on the following website :

[air.imag.fr](http://air.imag.fr)

**Managment** of the room thanks to OpenHab

**Display** of the courses on an interactive wall

Many other features

Some of them **already developped** by Ensimag students

**Prototype available** at the FabLab of the Ensimag (digital wall, some objects controlled by OpenHab (lamps...) and a touch table)

## SmartClassroom

Moodle authentication system on mobile devices

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## Our project

We wanted to develop a system to :

- **identify** a student or a teacher
- **manage the attendance** of the class

**Moodle platform** integrated to our system to make it usable by French teachers

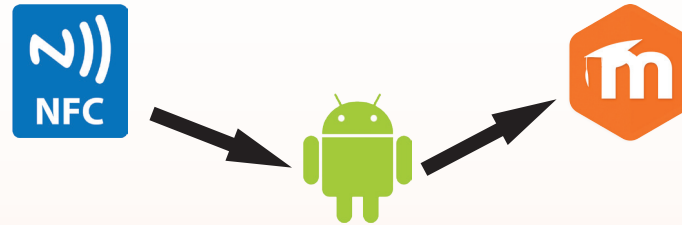
**Made-up scenario :**

- students and teacher have a **personal tablet**
- **NFC tag** in the student card
- the tablet can **scan the tag** to open the application
- student **announced «present»** to the course

## How it works

Use **Near Field Communication (NFC)** to get information stored on the tag in the student card

Data sent to the application and **used as a login and a password** to open the Moodle account associated with the student or the teacher



### How to use it

- 1) **Scan your NFC tag with your phone or tablet (the application can be closed)**
- 2) **When the application is opened, scan a second time your tag**
- 3) **You are now logged in Moodle with your own account and you have been declared «present» to the course.**

## To go further

The application is working, but many things can be **improved** :

### \* IP verification

For now, a student can scan his card **at home** and be declared «present» to the course

One solution : **restricting IP addresses** which can have access to the application

### \* NFC Security

\* **Synchronisation with students' schedule**