

## Student School Access Control Flex Time Courses Spending Follow-Up

**Solution for schools that want to automate the follow-up process of student absenteeism. Via a RFID antenna students are able to use their personal badge in order to enter the school. When allowed the school gate will automatically open. It is also used to register times spent on courses assigned to the flex time program.**

**Gate Control With RFID Antenna**



**Data is transferred via WiFi or Ethernet communication types. All HTTP and MQTT data streams are encrypted following the AES-256 CBC standard.**

**Our IoT board contains three relays, in this case one is used to control the gate. A timing subsystem will control when access is allowed. Via the application interface holiday periods and ad-hoc pedagogical days can be configured.**

**As it is a cloud based solution there is no need for a local server to provide this functionality.**

**At the secretariat an IoT enclosure has been configured to add and check RFID badges and via the application interface badges can be checked, assigned to or removed from students.**

**Practical Courses Room Access**



## Who Uses It ?

**Any (STEM) Science Technology Engineering Mathematics school type that wants to align with the new guideline of the Belgian ministry of education that relates to the student flex times.**

**The FLEX times guideline defines that students have the ability to choose when they want to spend time on a course. At the end of the week it should be about 20% of the total course time.**

## Features

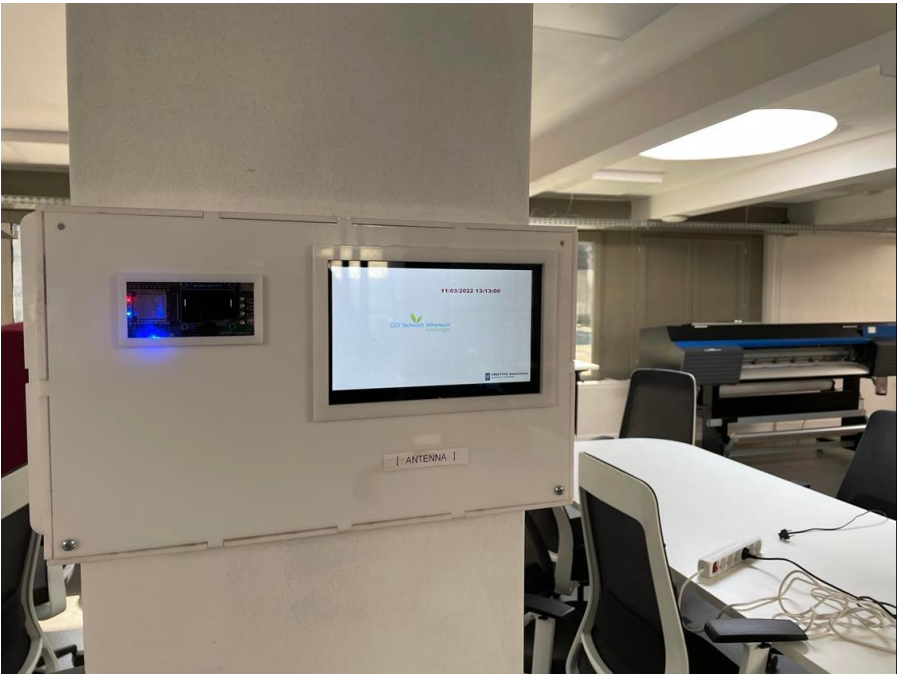
**For the theoretical part of these courses we foresee a TFT screen that will display the courses related to their class group after badging. The student will then be able to select a course to work on. A second badge action will check-out on this course.**

**Weekly statistics are available for each student per class group and time spend per course so that the teachers can follow-up on their progress.**

**For the practical part of the courses where machinery is required the rooms are foreseen with an IoT enclosure knowing what course it represents, so no selection needed there.**

**Time spend by the staff to control the daily student presences has been dramatically decreased by placing IoT enclosures at the gate and secretariat which will log student badge-in and badge-out activity.**

**We integrated this solution with the school platform named Informat.**



RFID Who Is At School ?

Customer " [redacted] "

Classgroups

Select classgroup:

All

Entered school after

6h

On apprenticeship

Select classgroups...

Apprenticeship filter

Search...

PDF

Excel

WHO IS AT SCHOOL

Classgroup	Timetype	Familyname	Firstname	Birthdate	Entrytime
3T EL	TSO	Aoutmani	Marouane	21.10.2007	15-03-2023 11:58:24
3B SI	BSO	Arys	Kyan	02.02.2008	15-03-2023 11:55:27
1A1	TSO	Buys	Nico	09.02.2010	15-03-2023 11:56:11
2A STEM T	BSO	De Decker	Ferre	03.02.2009	15-03-2023 11:58:43
4T TW	TSO	De Vries	Viggo	29.05.2007	15-03-2023 08:26:18
3B HO	BSO	Dewolf	Bas	19.02.2008	15-03-2023 08:15:17
3B SI	BSO	Flament	Enzo	17.12.2007	15-03-2023 08:20:38
3T GT	TSO	Gauthier	Louis	17.12.2008	15-03-2023 08:25:00
1B1	BSO	Hermans	Kjartan	12.03.2009	15-03-2023 08:25:49
2B STEM T1	BSO	Kabore	Malik	22.05.2008	15-03-2023 11:58:46
3T GT	TSO	Luyten	Teaghan	02.04.2008	15-03-2023 08:25:13
3B BO	BSO	Maeremans	Jirte	14.01.2008	15-03-2023 08:10:16

RFID Student Gate Badges Trace

Customer " [redacted] "

Time Periods

Monthly

Select a month:

Mar 2023

Familyname	Firstname	Birthdate	Classgroup
▶ Arys	Kyan	02.02.2008	3B SI
▶ Audenaert	Manu	13.06.2010	1A1
▼ Barbé	Maya	16.10.2007	4T HO

All badgetimes for the selected month

01-03-2023 08:18:20

01-03-2023 12:01:19

02-03-2023 08:18:43

02-03-2023 16:05:54

03-03-2023 08:17:20

03-03-2023 16:03:10

06-03-2023 08:16:15

06-03-2023 15:15:08

07-03-2023 08:12:41

07-03-2023 16:01:56

The daily absences report contains different filtering possibilities being class groups, school enter time, name and type of class group.

For students who are on apprenticeship it is possible to remove them from the absences list.

The monthly gate badges trace gives a detail of all badge actions during the selected month. This allows the staff to detect students that regularly abuse the required absences reason note rule.