



Students report about CO₂ monitoring Ученически доклад за дейността по измерване на CO₂

Дата/ Date: 01.06.2023

1. Въведение (Introduction):

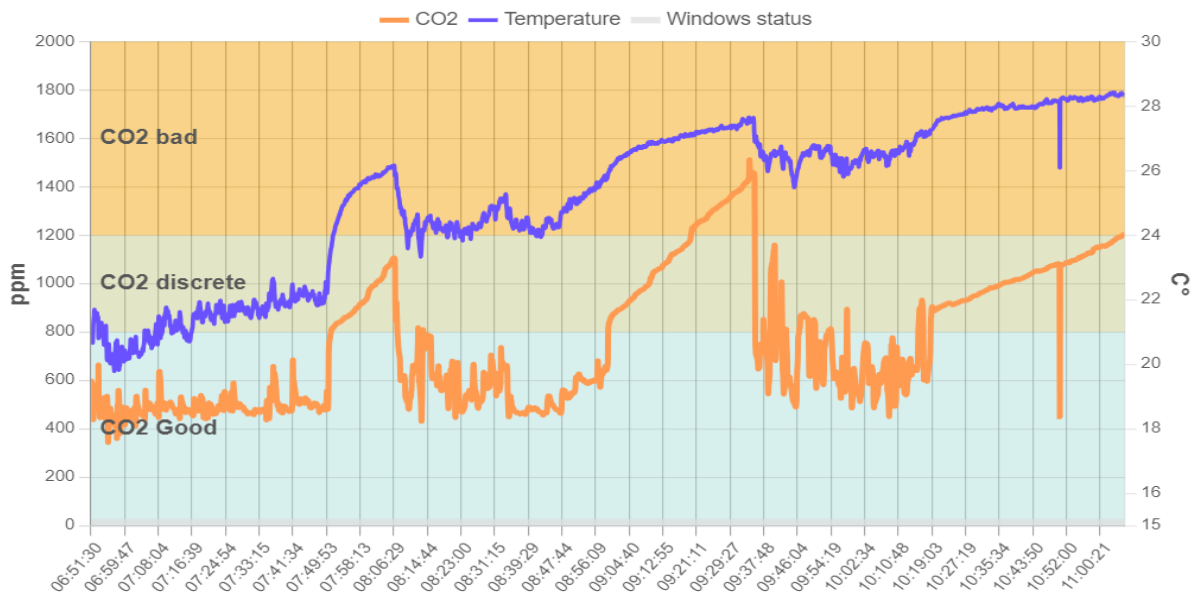
Measuring the concentration of CO₂ in a closed off environment. The process of the measuring will last for 30 days.

The point of this measuring is so that the levels of CO₂ can be tracked according to the dust particles and temperature of the air in the room & number of people in the environment as well as any ventilation systems that may be in place.

2. Информация (Information):

Station CHANGE06

20:07:48



Project number 2022-1-IT01-KA220-VET-000087732 –
"CHANGE - Co2 monitoring in schools for digital and Green competences"
CUP G31B22002160006

Event log to be used in CO₂ monitoring experiments Доклад за дейността при мониторинг на CO₂

Type of activity (вид дейност): Monitoring CO₂

Info about workspace (информация за работната среда) - School environment

School and Class (училище и клас) - Professional High School in electronics „John Atanasov“ – Stara Zagora

Room destination (номер на стаята) - 301

Room surface (площ на стаята) - 30 m²

Room volume (обем на стаята) - 90 m³

Number of windows (брой прозорци) - 2

Window opening surface (площ отваряеми прозорци) – (0,8 x 2) m²

Position of monitoring stations (разположение на устройството) – On the teacher's desk, adjacent of an openable window

Position of HVAC (??? Отоплителни , вентилационни системи) - Radiator 3m² away

Average number of occupants (среден брой на хората) - 13

Average occupation time (school hours?)(учебни часове: начален час-краен час) - 8:00 – 13:50



--

Event Log

Start time Начален час	End time Краен час	Event събитие	Notes Бележки
8:00	13:00	Window is open	10:35 – 11:00 There are no students
14:00	8:00	Window is closed	

3. Коментари (Comments):

The concentration of CO₂ from 8 to 10.35 is quite constant but the temperature increases. Then the classes continue at 11 o'clock when two classes entered the room and we can notice a significant increase of CO₂ (up to 800-1000 ppm). Why does it happen if the window is open? Due to construction work right outside the classroom there's an increase of dust particles in the air. The temperature is getting higher because of the outside temperature of the air around lunchtime. After the classes finish at 2 pm and the window is closed, the diagram shows constant level of CO₂ and higher temperature due to the empty space.

Due to the closed window the CO₂ level doesn't get any lower until 7 PM when it begins to stabilize.

4. Заключение (Conclusions): The concentration of CO₂ has increased after 2 separate groups of students have been in it. During lunch the levels of CO₂

increase regardless of an open window due to the traffic and construction outside. The polluted air outside hinders the effectiveness of the ventilation system.

Изготвили (Issued by) : 11A class

Emiliyan Velikov