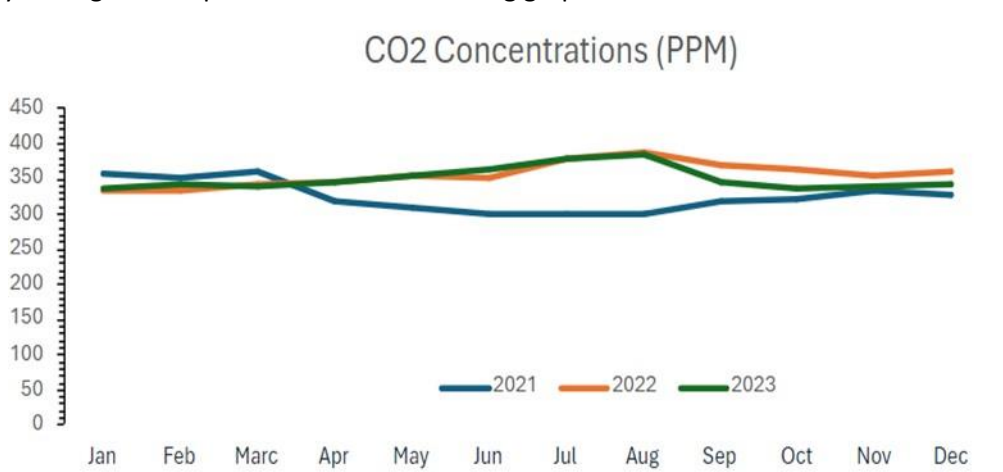


7.2.5 University undergo energy reviews to identify areas where energy wastage is highest

- Alexandria University has the lead and leadership in establishing the environmental sector and community service, and it has an effective role in preserving the environment in Alexandria and the neighboring governorates. The university, with its various colleges and institutes, is committed to implementing Law No. 4 of 1994 and its regulations. The university has environmental records for most colleges and institutes, and it also conducts environmental impact assessment studies for all its projects by consultants accredited by the Ministry of Environment.
- The university is also environmentally friendly and disposes of waste in a safe manner, as it has contracts with transportation companies for hazardous, medical, non-hazardous, solid and liquid waste.
- The university also monitors greenhouse gases and suspended and inhaled solid particles. It is committed to preserving the environment from emissions that may lead to environmental pollution and then climate change. The monitoring is carried out by faculty members who hold consultant certificates for self-monitoring of facilities, as well as environmental measurements in laboratories accredited by the Environmental Affairs Agency.
- Carbon dioxide has been monitored in Faculty of Science building over the past three years for 24 hours a day and the monthly averages were presented in the following graph:



This figure shows the monthly average CO₂ concentration over three years (2021-2023). It is noted that CO₂ concentration decreased in the period from March to September 2021, as a result of the closure during the Corona pandemic. It is worth noting that carbon dioxide emissions during 2022 and 2023 were within the threshold limits permitted by Law 4 of 1994 due to the university's efforts to prevent burning and the use of natural gas and solar energy.

- Alexandria University began its serious efforts to develop processes in preparation for digitalization in 2017, when the Development, Monitoring, and Administrative Reform Committee was established to analyze processes, eliminate waste, and save the university's resources. The committee also reviewed the integration and unification of documents for the various processes at Alexandria University and its faculties.
- Alexandria University has taken the first steps to work on reducing carbon emissions as one of the most important sources of greenhouse gases and has implemented a plan to monitor and calculate the "Carbon Footprint since the academic year 2018 / 2019" for all its faculties, institutes and its administrative buildings in order to aid in decision-making.
- According to the Carbon Footprint for all Alexandria University buildings for the Academic year (2023/2024), which is approximately 4,284.13765 CO₂e, one can conclude that the sustainability program of Alexandria University was

successful. The total electricity consumption of Alexandria University for the academic year 2023/2024 is 4519154.69 kilowatts per hour. Total electricity use increased slightly compared to 2023 (4329779.781 kilowatts per hour) the total electricity usage increased slightly compared to year 2022/2023. Which is not a significant increase. The total gas use on the Alexandria University campus in the year 2023/2024 is 8,784 m³ (99,809 KWh), which decreased almost of 35% compared to the academic year 2022/2023, where the total gas used was 13471 m³ (153,066 kWh). On the main campus area of Alexandria University electricity is used for lighting, cooling, heating and laboratory appliances.

- On the other hand, a significant decrease in the consumption of paper packages is observed. The paper packages used in all Alexandria University buildings for the Academic year (2020/2021) was 84689 paper packages. While in the year (2021/2022) it was reduced to 47911 packages. In the academic year (2022/2023), the consumed paper packages slightly increased to reach 55712 packages. In the academic year (2023/2024), the consumed paper packages reached 46876 packages.
- **Energy Conservation Advisory Group in Center for Graduate Studies and Research – Institute of Graduate Studies and Research – Alexandria University**

This group is concerned with reviewing energy in all its forms at all levels, such as measuring and analyzing exhaust gases in furnaces and boilers with the aim of improving combustion efficiency and reducing emissions, measuring and analyzing boiler water, in addition to tests of thermal insulation efficiency, lighting efficiency, electrical energy analysis, and compatibility with electrical loads. It also determines the power factor to increase efficiency. Rationalizing the energy used, reviewing energy use, radiation measurements and safety tests for radioactive sources. The group has a mobile laboratory that can visit sites and make environmental measurements related to energy as well as emissions and study energy consumption and the extent of thermal insulation in industrial sites.