# IoT Proposal for Monitoring Environmental Indicators in the Detection of Indoor Spaces Propitious to the Contagion of Infectious Diseases and Health Disorders.

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## Abstract

According to the World Health Organization, people spend 90% of their time in indoor environments and are therefore exposed to pollutants and viruses. Therefore, the objective of this work was to detect the environmental indicators that influence air quality and how it can affect humans through a CRISP-DM methodology and the Systematic Literature Review (SLR). The work consisted of acquiring a Databot 2.0 to measure carbon dioxide, volatile organic compound, particulate matter (PM2.5 and PM10), temperature and humidity. The device was used in computer labs, office and rooms. Data were obtained and underwent the process of extraction, transformation and loading, then the data were modeled using business intelligence software, in which an interactive dashboard was developed. The main problem found was that the spaces do not have enough fresh air, since the environmental indicator with the highest concentration in these environments was carbon dioxide, due to insufficient ventilation, the occupants had difficulty breathing, headache and drowsiness, as for the rooms was found filtration of particulate matter from outside to inside as significant fluctuations in concentration were recorded. The contributions of this work were selection of environmental indicators, measurement process in closed places and a dashboard showing the fluctuations of the variables.

## Keywords
IoT, COVID-19, indoor air pollution, environment monitoring, transmission of COVID-19.