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Enviromental Monitoring of Air Quality Using Low-Cost Sensors

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Environmental monitoring of Air Quality Using Low-cost Sensors

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Project Description

In recent years, there has been unprecedented availability of low-cost and miniaturized environmental sensors including those for sensing particulate air quality. Currently available air quality sensors are capable of sensing particulate matter concentrations but not the composition. However, it may be possible to infer the aerosol composition using low-cost mini spectrometers. Students working on this project will measure the spectra of smoke, dust and other types of aerosols and develop automated algorithm to detect aerosol type. Students will use low-cost computing systems such as Raspberry Pi to interface with the spectrometer and for subsequent analysis.