

## Microclimate Variations in Rio de Janeiro Related to Massive Public Transportation

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**Abstract :** Urban public transportation in Rio de Janeiro is based on bus lines, powered by diesel, and four limited metro lines that support only some neighborhoods. This work presents an infrastructure built to better understand microclimate variations related to massive urban transportation in some specific areas of the city. The use of sensor nodes with small analytics capacity provides environmental information to population or public services. The analyses of data collected from a few small sensors positioned near some heavy traffic streets show the harmful impact due to poor bus route plan.

**Keywords :** big data, IoT, public transportation, public health system

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