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Master Thesis

Universal calibration model of low-cost air quality sensors using machine learning techniques

Low-cost air quality (AQ) sensor networks are potential providers of dense AQ measurements. However, they suffer from decaying performance over time, which requires more frequent calibration. Several machine-learning-based calibration approaches are proposed in the literature with promising results to address this issue.

Nevertheless, the question is, "how reliably these calibrated sensors can perform at a different location?". To answer this question, we are interested in studying universal calibration models using machine learning techniques and investigating their generalizability with data collected from different and distant sites.

Start: Immediately
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