Studying Pollutant Exposure of People Employed in Blue-Collar Jobs

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Motivation:

- Daily wage earners work in extreme environment with their wards present in the same environment.
- Their health conditions due to pollution are often ignored and mostly unknown.
- Basic health condition can be improved if sources and effects of pollution are identified in these extreme workplaces

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Hypothesis: People in blue collar jobs are exposed to more pollution.

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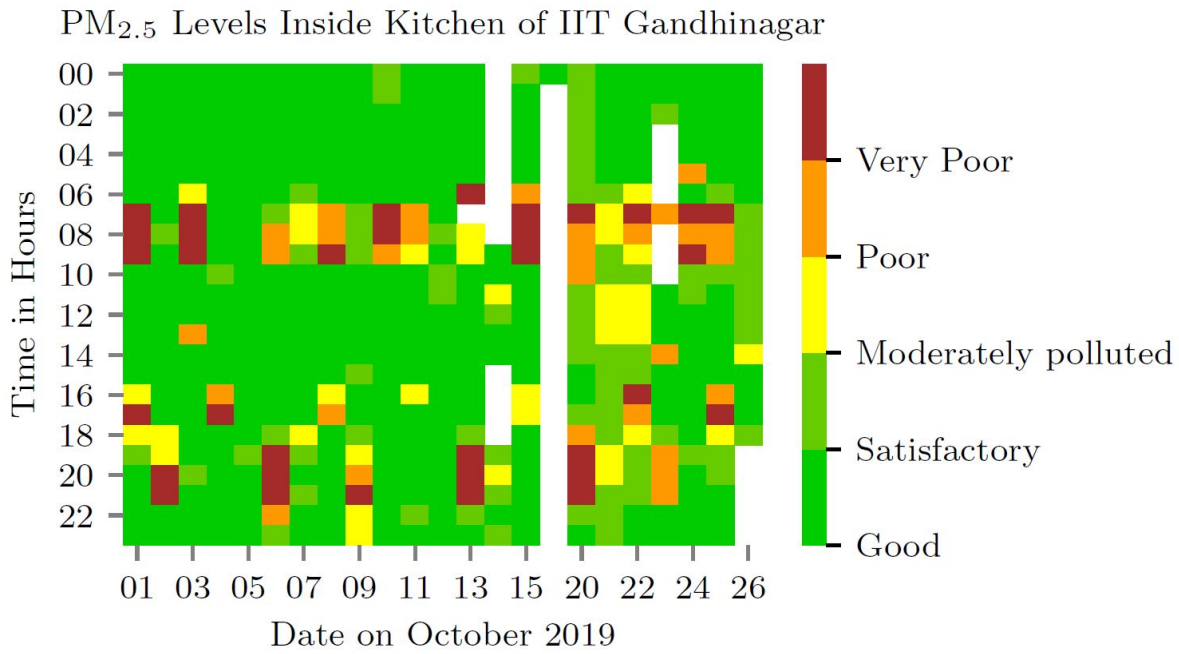
Aim: Monitoring pollutant exposure and health effect on daily wage workers that includes:

1. Construction workers
2. Stone Quarry workers
3. Delivery agents
4. Kitchen Cooks

Experiment: Ambient monitoring at a kitchen



Sensor:

1. How to calibrate sensor? How often to calibrate them?
2. When is it safe to assume that the sensor needs replacement?
3. How to report readings? (error bound)
4. Do we necessarily need a wearable sensor for personal exposure monitoring?
5. Can $PM_{2.5}$ act has a proxy for PM_{10}?
6. Can you share some sensor with us or its design?

Health:

1. What is a population? How to sample this population?
2. What kind of intervention can we do?
3. What kind of study to perform on individuals so that we can monitor their health?
    a. Longitudinal or cohort ?
4. What health parameters do we measure? How?
5. Will a health database be helpful for the community?
6. Can you share past papers on health study?

Satellite Data:

1. How can satellite data intervene in such study?
2. Can you share satellite data with us?

Machine Learning:

Can Machine Learning help in providing new insights provided we have data related to ambient monitoring, exposure monitoring and health parameters?