Modelling, Management, and Processing of Mobility Data in Urban Polluted Environment

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## Research problem

? We live in indoor and outdoor environments where many human activities happen.
? In the context of semantic trajectories, the management of different mixed indoor and outdoor mobility spaces is still not completely addressed.
? To exploit raw trajectories and detect complex events defined as Urban Situational indicators (USIs), a contextual and environmental semantic comprehension is required.
? The domain which is addressed by our framework, is one of the pollution phenomenon that arise in both indoor and outdoor environment
? Spatio-temporal trajectories will be studied under the dimension of pollution environment.

Functional approach


Semantic trajectory representation


## Prototype principle

- Trajectories scenarios data generation.
- Events modelling (USIs) to annotate the trajectories.



## Our goals

1. Provide an integrated representation of indoor-outdoor spaces.
2. Design a model oriented to contextualised human based trajectories.
3. Apply the framework to an urban polluted environment constitutes a proof-of-concept.
4. Provide to experts and decision makers useroriented capabilities for querying and analysis of an urban environment.
