

**GOAL 3** : Intelligent, safe and secure mobility

**TASK 3.2** : Intelligent infrastructure and vehicle

**SUBTASK 3.2.5** : NAPVURA: Solutions to guide a fleet of autonomous or not vehicles in heterogeneous urban areas

Post doctorate position

**Performance of acquisition and tracking schemes  
for GNSS signals over multipath channels**

For new ITS applications, positioning solutions will require to be more accurate and available. The most common technique used today is composed of a GPS, sometimes aided by other sensors. However, GPS and GNSS in general suffer from masking effects and propagation disturbances in urban areas that cause biases on pseudorange measurements.

In the context of Napvura, it has been developed the modelling of pseudodistances noise in urban environment, as well as adaptive localization algorithms to substitute the classical Extending Kalman Filter when this last fails. This work mainly concerns the end of the processing chain between the satellite transmitter and the output of the receiver.

Current work concerns the modeling of the GNSS propagation channel at the beginning of the chain (before the antenna of reception).

The job proposed for this position aim to evaluate the impact of the channel on the acquisition and tracking schemes, inside the signal processing module, and in particular of the specific channels encountered in transport applications.

**Contacts**

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**Employment**

Gross monthly wages : 2500 €  
Duration :12 months  
Employer : CNRS France