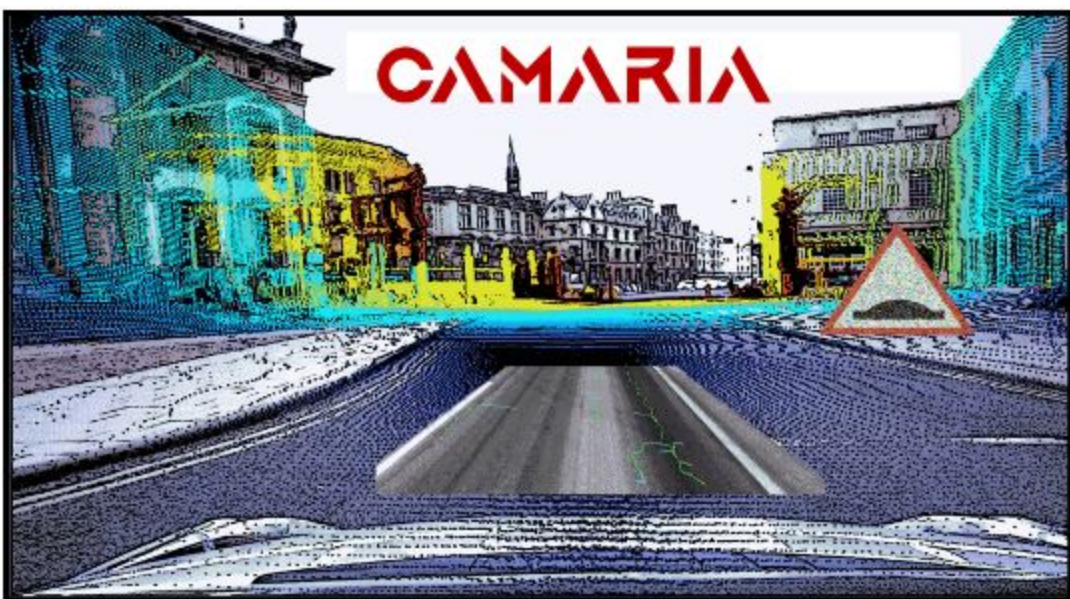


CAMARIA: 3D cameras and AI for the advanced maintenance of roads

Aceinsa, IPS Vial, GB2S-UPM (2023-26)

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Executive summary

CAMARIA develops a cost-effective **predictive maintenance tool**, based on **3D cameras** mounted on road supervision vehicles, and **AI modules** to detect deficiencies on the road surface and identify road signs. It learns from the visual inputs to (i) estimate the **future degradation of the road**, and (ii) create an **updated inventory** of every type of road sign using a **hierarchical approach**.

Keywords:

- > Predictive maintenance.
- > 3D cameras.
- > Deep learning.
- > Road sign identification.

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