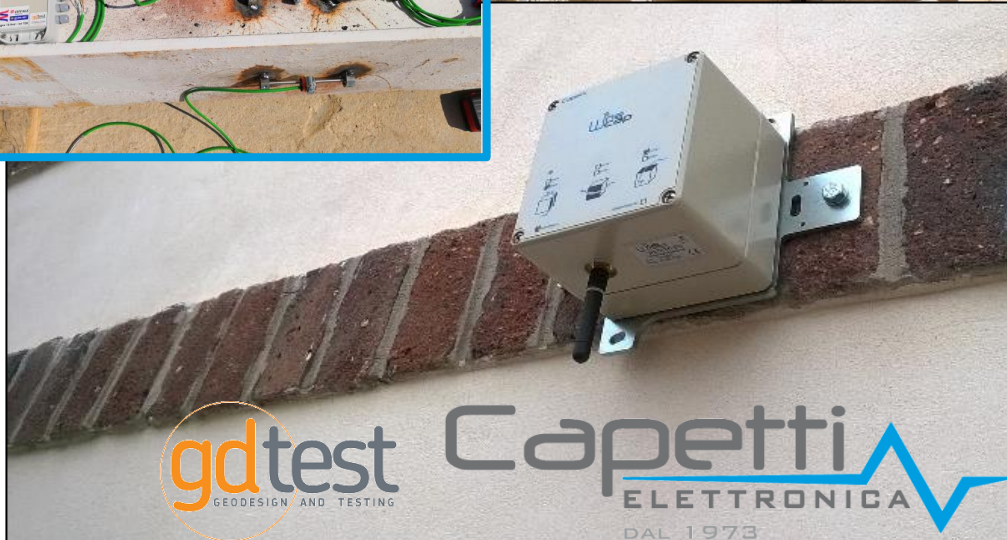


Tunnels Monitoring Grand Paris Express



Background

The main aim of the Grand Paris Express project is to reinforce the Paris underground network. With approximately 200 km of new interconnecting lines, the extension of two existing lines and the implementation of four completely new lines, this ambitious infrastructure project snaking through the French capital and its urban areas will also involve the creation of 68 new railway stations.

The solution

Capetti Elettronica wireless instrumentation was chosen to monitor the impact of excavation works on existing urban structures and on the construction works. Equipment included MEMS dual-axis inclinometers on the buildings within the area of geotechnical interference, single-axis inclinometers on electrolevel tilt meters positioned in stations and on tracks, vibrating wire strain gauges on temporary counter struts in sites and pre-cast segments, or even in the launching structure for the tunnel boring machine (TBM).

The result

The customer was able to view the relevant measurements continuously thanks to the GSM gateway, and completed the monitoring with sound level meters to check the noise generated.



WSD12-4VW

The winning choice

- ✓ WSD I2-4VW (contrast struts)
- ✓ WSD I2-VW (TBM's segments and thrust)
- ✓ WSD I5TIIDR (buildings inclination)
- ✓ WSD I2T-IDR (electrolevels)
- ✓ WSD I2T- AV (noise monitoring)