

SIGTUN Monitoring Platform

SIGTUN is a Geographical Information System (GIS) that shows the field monitoring of any infrastructure by using digitalised cartography (UTM coordinates) and the location of every single instrumentation device. SIGTUN collects manual and automatic readings from various geotechnical and structural instrumentation devices previously installed in the field.



THE Applus+ SOLUTION

Applus+ developed the monitoring platform in the early 2000s to manage and monitor field data obtained in infrastructure projects, assess risks, and make timely decisions.

It allows the display of information by kind of device or sensor (i.e., inclinometers, prisms, extensometers, etc.), or for an area where these sensors have been previously installed; these sensors are identified by a unique ID, shown in the GIS.

The platform is multiuser so that the user can display different information from different computers and licenses. SIGTUN shows the evolution of different measurements taken by every sensor updated on time.

It provides three alarm levels (notification, prewarning, and warning). When a reading exceeds one of these levels:

- The symbol defining the device that has detected an unusual behaviour will change its color (green, yellow, or red, depending on the level exceeded).
- It will create a new notice on the notice board of risks and incidents.
- It will send an email or an SMS to the previously defined email addresses and mobile phone numbers for every new incident.
- It is focused on minimising the risk of any structural movement or settlement.



Applus+ experts have used SIGTUN in multiple infrastructure projects worldwide, including Spain, KSA, Peru, Canada, Oman, Chile, Panama, and Portugal.

Target customers

The platform is addressed to infrastructure projects to allow receiving warnings if any parameter is out of a previously established security range. It receives data from the field coming from the installed devices for further analysis to make decisions about the potential behaviour of the structure.

It is focused on minimising the risk of showing on time any structural movement or settlement in the field, both during construction or during the in-service phase of the infrastructure.

Key customer benefits

- SIGTUN minimises structural risks.
- It displays the entire field monitoring data and shows the warning messages online and in real time.
- It is easily accessed through the internet from everywhere in the world, while all the field monitoring information is stored in safe servers.
- It is very flexible, which makes it easy to define any different configurations according to the client's needs.
- This control is required in any project in order to be aware on time, about all the movements that could appear in any infrastructure, both during the construction phase or during the service phase.