

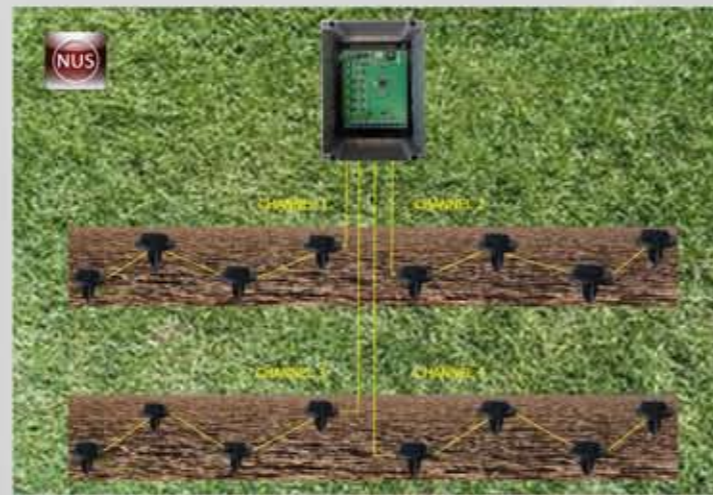


# New Underground System

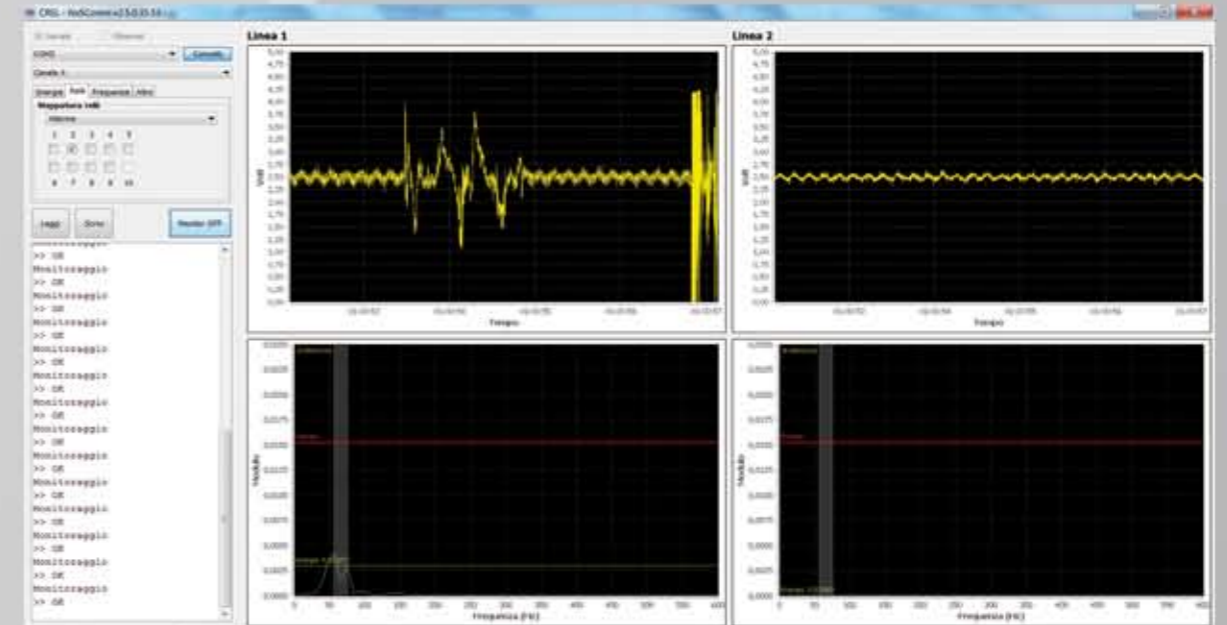


## Stabilized technology

The NUS underground perimeter monitoring system consists of an electronic processing unit and passive sensors which are buried within an excavation prepared along the defined area to protect. The proven technology of the data processed by the DSP system allows the NUS unit to distinguish in real-time false alarms from real intrusion attempts. The underground system is constituted by two chains of buried sensors for each unit, in which each line is placed in a 30 cm deep and 60 cm wide excavation. The NUS system is available in 2 versions, one line per channel, or double line per channel. The single line determines a 5 meters wide sensitive area, the double line determines a 10 meters wide sensitive area.



## Management software



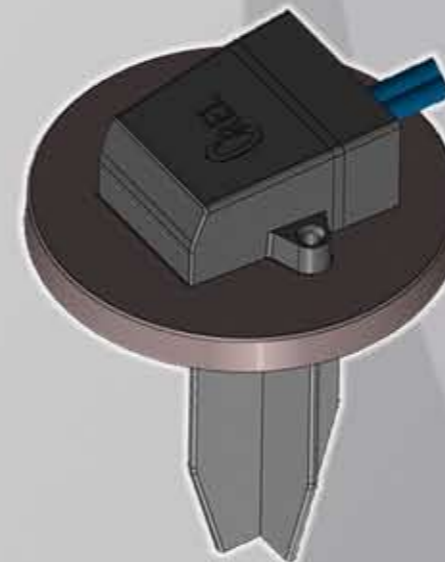
The NUS unit is supplied with a management software with which you can set the various configuration parameters. The software also has a graphical interface that allows real-time display of both the acquired and processed signals. The software can communicate with the central system locally through its USB connection, or remotely via LAN connection with TCP / IP protocol.

## NUS Analysis Unit



The analysis unit is constituted by a DSP (Digital Signal Process) that has the function to collect and process the signals coming from the NUS sensors. The DSP processing algorithm allows real-time processing of the signal coming from the NUS sensors, carrying out an accurate discrimination, comparing the type of signal coming from the sensors with a preset number of attempts, the pressure practiced on the ground where the sensors are installed and the form of the signal. In this way the NUS unit is able to distinguish and determine the type of event (alarm channel A or B, cut, tampering channel A or B, opened container). The analysis unit can interface with any alarm control panel or existing system. With the supplement of the relay expansion module it's possible to implement up to 8 outputs in addition to the standard NUS unit ones. Moreover, by using the Lan module it is possible to manage totally from remote one or more NUS units.

## NUS SENSOR



The NUS sensor is passive piezoelectric like and has the function to convert the mechanical pressure exerted on the ground into an electrical signal. The sensor is placed inside a sealed ABS box resistant to strong external pressures. The sensor is designed to be installed under any type of soil or floor, even in the presence of moisture or condensation. It does not require any maintenance, it's produced in groups of 75 units that if installed at a distance of 2 meters from each other can make sensitive an area 5 meters wide for a length of 150 meters per group.

