

# INNOVATIVE MONITORING SYSTEMS BASED ON FIBRE OPTIC TECHNOLOGY

**Innovations and Benefits** - The service allows to monitor various parameters (temperature, deformation, humidity, pressure, acceleration, etc...) at the same time and by using the same measuring instrument.

Intrinsic fibre optic technology, with no need of electrical power at the location where monitoring is done. The technology is fully immune from electromagnetic disturbances.

Simplified routing of multiple sensors over extended areas with in-series cabling of sensors, even if devoted to monitoring different parameters.

Sensors with reduced footprint and visibility.

**Uses** - Metrology, structural health monitoring, non-destructive testing. Monitoring of engineering structures devoted to both security and safety (mechanical structures, large civil and transportation engineering structures, archaeological and monumental cultural heritage complexes, geotechnical and seismic monitoring). Measurement of biomedical parameters.

**Past and Present Activities** - Measurement of biomedical parameters and monitoring during interventional radiology.

Permanent structural monitoring of large civil and geotechnical engineering structures.

Development of Weigh In Motion systems and speed-measuring systems.

Monitoring of archaeological and monumental complexes.



Characteristics: CUSTOM

Thanks to its flexibility, the service can be adjusted to different needs and contexts