



Boart Longyear Interfels

Monitoring of the EM-stadium ESTADIO MUNICIPAL DE BRAGA in Portugal.

The stadium was built into the rock of a hill. The left side of the construction is fixed to the rock and carries the right side by steel ropes.



Lots of different sensors are used:

- Barometric pressure above and below the roof to get conclusions of the lifting forces.
- 3-axial acceleration (250 Hz) of the roof.
- Forces in the ropes (50 MN).
- Inclination of the stairways to the grandstand.
- Wind speed and direction.

Requirements:

- Decentralized setup (distances up to 650 m)
- Sample rate 250 samples/sec
- More than 100 measuring points
- Permanent long time use

The use of the e.bloxx modules A1 for acceleration, A3 for voltages and A6 for bridges provides the required long term stability, measuring rate and accuracy.

The distance from one to the other platform will be realized with an optical link. Via Ethernet the measurement results was transferred to the PC. Critical values are online controlled by limit function in the modules.

The system runs since the construction of the stadium satisfactorily.



Centralized part in the „fixed“ part of the stadium



Decentralized modules in the „flexible“ part of the stadium

