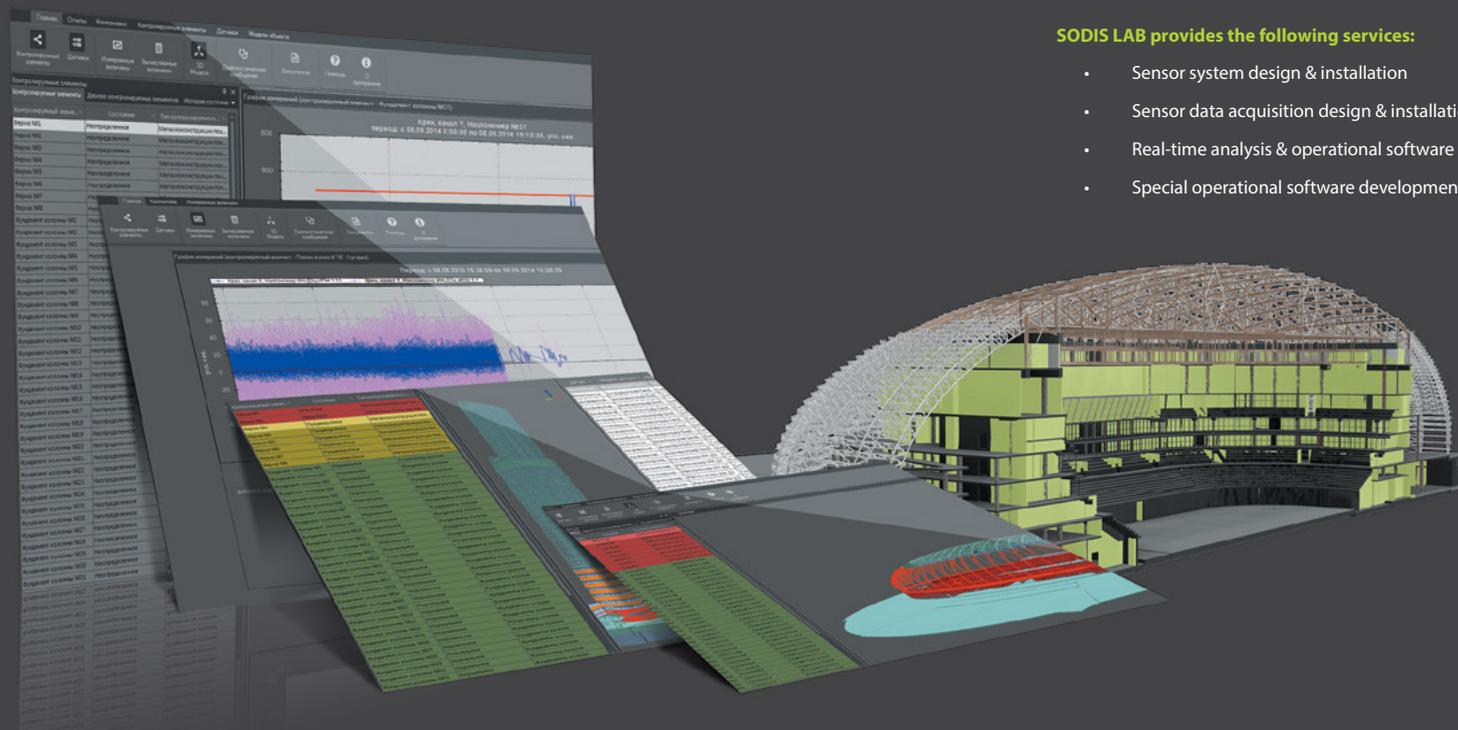


A high quality, performance-based engineering project can't do without a structural health monitoring system. This system, consisting of sensors, mathematical models and software analyses your structure in real-time and informs the operators of earthquakes, extreme wind loading and the safety of the structure on a desktop computer.

SODIS LAB has developed software that handles as your favourite document creator and navigates through the 3D model as if it were Google Earth. It will show you the current situation of the structure, its safety and its maintenance needs. Of course, SODIS LAB can perform analysis of the raw data and provide detailed technical reports to the engineers on the structure's performance.



SODIS LAB provides the following services:

- Sensor system design & installation
- Sensor data acquisition design & installation
- Real-time analysis & operational software
- Special operational software development

SHM benefits:

- Maintenance strategy [1]
- Assessment of safety
- Lifetime prognosis [1]
- Detection of events (explosion, wind loading, earthquake)
- Real-time control of damper systems
- Improvement in structural systems through performance-based engineering
- Risk reduction in decision making [2]

The tallest buildings in the world have structural monitoring systems:

- Burj Khalifa, Dubai (828 m)
- Shanghai Tower, Shanghai (632 m)
- Taipei 101, Taipei (508 m)

Additionally, almost all new long-span bridges have a system that enhances their maintenance and saves operators millions in inspection costs:

- Akashi Kaikyō Bridge, Japan (1991 m)
- Storebælt Bridge, Denmark (1624 m)
- Tsing Ma Bridge, Hong-Kong (1377 m)
- Golden Gate Bridge, San Francisco (1280 m)

References

- [1] H. Wenzel, R. Veit-Egerer, and M. Widmann. The role of SHM in civil lifecycle engineering. In 6th European Workshop on Structural Health Monitoring, Dresden, Germany, July 2012.
- [2] D. Zonta, B. Glisic, and S. Adriaenssens. Streicker bridge: The impact of monitoring on decision making. In 8th International Workshop on Structural Health Monitoring, September 2011.