SHMnext

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Safeguarding Assets, Empowering Success
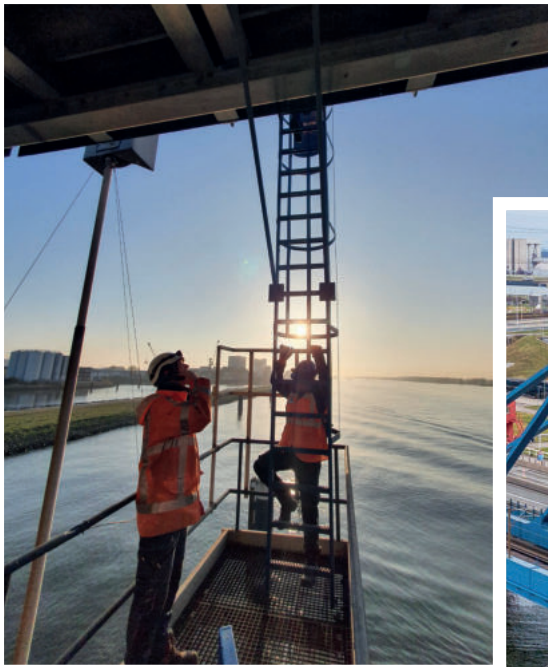
Unlocking Insights, Ensuring Safety

SHM NEXT B.V. is a leading expert in the development of advanced wireless technologies for health monitoring and digital twinning of structures. Our expertise extends to a wide range of applications, including bridges, cranes, pipelines, pressure vessels, storage tanks, and foundations.

Our sensor systems offer complete scalability and cost-effectiveness, delivering accurate quantitative information on the existence, location, and severity of damages. They can detect various types of damages such as cracks, corrosion, erosion, and stress-corrosion from the early stages of development. Our cutting-edge technologies do not rely on baseline measurements or history of damage.

SHM NEXT's technologies also excel in challenging environments, displaying exceptional resilience against operational and environmental noise. This guarantees reliable and precise data collection and analysis, ultimately enhancing the overall performance and safety of monitored assets.
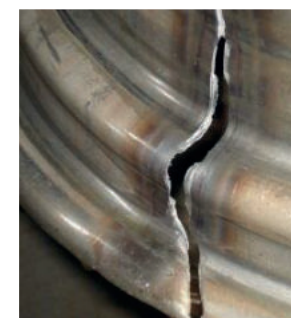
Maximizing Reliability, Minimizing Risk!

We empathize with the challenges encountered by asset managers, which is precisely why we provide a comprehensive solution that directly tackles these issues.

Traditional reactive and preventive maintenance schemes have become inadequate in today's dynamic industrial landscape. It is imperative to transition towards optimized predictive schemes. By proactively identifying structural defects from early stages, our tools empower you to effectively minimize expensive and prolonged downtimes, saving valuable resources and maximizing operational efficiency.

SHM NEXT's Products

Structural Longevity

UniQ

UniQ is our low-power easy-to-install wireless sensor node for monitoring structural degradation, e.g. cracks, in metallic and composite structures. Each **UniQ** node can individually detect and localize damage in an area up to 50 m^2 around it.

Applications: steel bridges, cranes, pipelines, pressure vessels, storage tanks
Suitable for monitoring of: fatigue cracks, corrosion, erosion, stress-corrosion

SimBol

SimBol is our wireless sensor node for quantitative integrity monitoring of bolted and riveted connections. SimBol can be considered as easy-to-install high-tech retrofit on individual dolts, and a network of them can be used for digital twinning of large-scale bolted connections.

Applications: bolted joints in bridges, wind-turbines
Suitable for monitoring of : fatigue damage,

Agent

Agent is our multi-purpose smart aggregates that can be embedded in concrete structures for monitoring of strain, vibrations, and damage. With its implanted array of transducers, **Agent** performs measurements with high accuracy and endurance. **Agents** can be applied to both new and existing concrete structures.

Applications: concrete foundations, piles, slabs
Suitable for monitoring of: concrete cracking, rebar corrosion, rebar debonding

- No Downtime
- Intrinisically Safe
- Fully Wireless
- Cost Efficient
- Scalable Solution
- Quantitive insights
- Diagnosis & Prognosis
- Ease of Deployment
- Realtime Visualization

Unlock the potential for asset lifetime extension with our wireless monitoring systems and digital twins solutions. Experience minimized operation interruption and the real-time visualizations. Our scalable solution ensures easy installation. With their intrinsically safe design, they can be also utilized in hazardous areas.

Innovative Solutions for a Safer Future

At SHM NEXT, we pride ourselves on delivering cutting-edge services that guarantee the utmost protection and longevity for your assets. With our multidisciplinary expertise, we provide a comprehensive range of services to meet your specific asset integrity management needs.

Digital Twins

With our 4D Digital Twins automatically fed by our sensor systems, we bring a new dimension to asset management. Harnessing the power of digitalization in diagnosis and prognosis of asset integrity, you can identify potential risks and devise preventive measures before they impact your operations.

Damage Minotoring

Our Damage Monitoring solutions ensure that no cracks, corrosion, leakage, and weld integrity issues go unnoticed. Our state-of-the-art monitoring systems detect even the slightest damage growth, allowing you to take proactive measures before they turn into costly issues.

Load Monitoring

Load Monitoring is essential for maintaining structures within the design limits. Our advanced load monitoring systems provide real-time data, enabling you to make informed decisions regarding the reliability of the structure and efficiency of your operations.
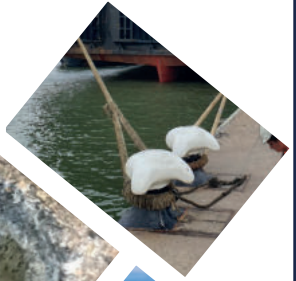
Coating Quality Assessment

Coating Quality Assessments are crucial for maintaining the integrity of your structures and equipments. Our specialized tools accurately assess the integrity of your coatings, ensuring optimal protection against external elements. We leave no room for compromises when it comes to the longevity and performance of safety-critical assets.

Risk Analysis

We understand that Risk Analysis is vital for strategic planning and decision-making. Our team of experts employs rigorous methodologies to evaluate risks associated with your assets in different operational conditions. By identifying potential vulnerabilities and developing effective mitigation strategies, we empower you to minimize risks and maximize your operational resilience.

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