Televic GSP

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rail

Delivering the rail communication technology of tomorrow.

Passenger Comfort Monitoring with COSAMIRA Technology

As the world's population emerges from the COVID crisis, it is clear that demand for rail travel is growing, and industry experts even suggest that passenger numbers could grow by 18% compared to pre-pandemic levels. This trend is fuelled by the fact that societies around the globe are increasingly recognising the benefits of rail over aviation.

The recent reintroduction of sleeper trains, particularly in the EU, proves that people are keen to travel this way – but only if the rail service is competitively priced, safe and comfortable. As a result, managing passenger comfort is becoming crucial to ensuring customer loyalty and satisfaction.

Why Is the Passenger Experience So Important?

Even though increasing numbers of business and leisure travellers are turning to rail, the key to retaining them as customers lies in guaranteeing an experience that matches their expectations. From the initial ticket purchase in the station to the railcar, the rail industry needs to offer experiences that make passengers eager to return again and again – particularly now that their experiences can be accurately measured and reported on.

Today, the industry has unprecedented opportunities to comprehensively monitor the comfort of its passengers' experience.

Fifty Years of Passenger Comfort Research

Back in the 1970s, academic researchers Osborne and Clark from the University of Swansea in Wales began establishing systems that measure passenger comfort and tried to obtain assessment results using questionnaires and surveys. Their research focused on how best to obtain quantitative assessment data from a survey, leading them to study the best methodologies for assessing passenger comfort in two areas. The first area concerns aspects of the transportation system itself, such as ride, carriage and organisational comfort. The second area has to do with behavioural aspects.
Their research offered them a new understanding of passenger comfort, a definition of the concept of comfort, and insights into its relationship with passengers' other travel experiences and complementary factors that

influence comfort: temperature, ventilation, illumination, photic stimulation, pressure changes, travel length and task impairment.

Today: Digital Reigns Supreme

Today, systems rely on recorded digital measurements in addition to surveys; they enable a broader quantifiable data set that can show baselines figures, changes and trends.
Beginning with the bogie we can now monitor and report on all aspects of bogie dynamics, from the quality of the track to the movement of the car body – as well as noise, vibration and harshness measurements, which indicate the reality of the journey. Within the carriage, we can accurately and continuously monitor factors such as air temperature, humidity, internal noise volumes and general ride quality.

More Integrated Data Means Richer Passenger Experience Insights

Individual passenger perceptions are, of course, an important element of the overall picture. However, usable digital data is the key to ensuring high standards and continuous improvement. One example of creative thinking in this area is the work that Televic GSP is doing in partnership with a European train operator that is blending multiple sets of data covering track bogie and carriage interior information with customer feedback to understand actual and experienced passenger comfort levels across the entire journey. They are also observing how this changes according to time of day, season and train type.

The Televic COSAMIRA system is now available as a retrofitted solution that enables multiple data assets to be combined and data rules applied, for a cross-spectrum analysis of factors that interact to influence customer satisfaction. It maps out the exposure to shocks and vibrations, providing an objective tool to measure and improve the passenger comfort on your fleet. The data can be used to actively move the car bodies in lateral direction (active lateral suspension), reducing shocks and discomfort.

Looking for the Right Partner? Televic GSP has over twenty-five years of experience in the design and production of bogie-mounted control and monitoring systems. The latest COSAMIRA technology provides a complete integrated solution for condition-based maintenance on all types of trains encompassing sensors, hardware, analytical software and dashboards. Certified to SIL2 standard if required, the Televic COSAMIRA platform provides the proven solution. Don't hesitate to contact us for any questions.

For a safer, highly-efficient and cost-effective fleet

COSAMIRA:
your 360° bogie control and monitoring system

Reduce maintenance costs through early detection of likely failure with predictive analytics

Improve reliability by monitoring the real-time operational condition of your trains and tracks

Maximize passenger experience by measuring passenger comfort, tilting and active radial steering

Today, over 60,000 vehicles are equipped with Televic GSP solutions. For more than 30 years, we've been a leading and trusted partner for railway operators and trains builders all over the world.

Get in touch at
www.televic-rail.com

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