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Vision Systems Unveils its Newest Advanced Driver Assistance Systems at Busworld



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Camera monitoring system Smart-Vision.

Photo credit: Vision Systems

Vision Systems will present its latest innovative solutions dedicated to the bus and coach market, focused on safety, comfort and passenger experience.

Building on an 80-year expertise in rear vision and on its business unit Safety Tech, dedicated to Advanced Driver Assistance Systems, Vision Systems will showcase its camera monitoring system Smart-Vision, that replaces the rearview mirrors with high-definition cameras and interior displays. Developed by Safety Tech, Smart-Vision is an innovative and efficient solution for buses and coaches, providing optimized visibility and enhanced ergonomics. The system operates night and day, in every weather and in any driving environment. Compared with standard rearview mirrors, the interior displays eliminate glare and the automatic adjustment of the screens' brightness ensures excellent visibility in all lighting conditions.

The Savety-Front solution, a smart anti-collision system most particularly designed for urban vehicles to reduce the number of accidents in town, can be added to the Smart-Vision solution. Consisting of intelligent and configurable sensors, it alerts the driver when a risk of collision with a vehicle, cyclist or pedestrian is detected. The anticipation of collision is based on path comparison, taking into account the road users' position, speed and direction. The solution differentiates a road user who represents a potential collision danger from another one who does not; if there is no collision risk, the alert does not activate. The system can also include guidance and maneuver assistance, video recording for insurances and statistics on risk areas for drivers' training or improvement of urban space.

Another driver assistance system developed by Safety Tech is the Savety-Mirror solution, based on image analysis. The solution alone, that comprises side cameras next to the rearview mirrors and an interior display, provides improved visibility, lane changing assistance, blind spot detection, high-speed and long-distance vehicle detection and monitoring of the vehicle's surrounding. This system can be integrated into the Smart-Vision solution without additional camera.

Smart-Vision not only offers greater driving comfort and safety, but also allows a high return on investment, by significantly cutting fuel consumption thanks to improved aerodynamics, and by reducing insurance and maintenance costs, while maximizing the vehicle's availability with payback scenarios between 18 and 30 months.

Furthermore, as an expert in shading solutions and following the establishment of Smart Lite last year, a new division devoted to the design, production and commercialization of dimmable solutions, Vision Systems will exhibit a multizone Electronically Dimmable Window (EDW). EDWs, integrated into the glazing, allow the passengers to tune the tint of their window from clear to dark in order to regulate daylight, glare and heat entering in, while preserving the view. They enhance visual, thermal and acoustic comfort, for a greater wellness atmosphere. They can be controlled directly by the passenger, through a centralized control panel, or automatically with integrated light sensors.

Moreover, they turn dark when the vehicle is stopped which allows to keep the interior cooler for low air-conditioning loads and energy saving.

The electronics of the system are integrated, which facilitates installation in original equipment or retrofitting and reduces maintenance (no moving parts, easy-cleaning) and downtime. Lastly, they are suitable for large flat or curved surfaces with different zones to be dimmed independently.

Vision Systems will also display its new onboard info & entertainment system Media-Go, the plug & go multimedia solution. Specially designed for coaches and buses, the light and compact box (1.7kg) easy to plug and fix (no vibration), powers up very simply with an on/off button. The passengers can then access to the content of the media server, movies, music, TV series, daily press and magazines, travel and tourist information, even when stopped as an integrated battery operates the system when the power is off. In addition to offering a higher level of service to the passenger at a competitive price, the solution enables the operator to generate revenue through local or global advertising, onboard shopping and ticketing. Besides, a remote web-based management allows for content update, diagnosis and maintenance, and users' statistics analysis.