Lufft and Futurit to introduce sensor-to-sign concept

Stand-alone solution for warning in case of critical road conditions

In order to convey information about road conditions and give out warnings to the road users, large traffic guidance systems on motorways use to collect environmental data through the Advanced Road Weather Information Systems (ARWIS). Traffic control sub-centers receive the real-time data such as traffic classification, traffic intensity, fog situation, wind peaks, and critical road conditions like ice or snow. A sophisticated software reads the incoming data and interprets them into information that can be displayed via variable message signs (VMS). An operator in the traffic control center then forwards the actual messages to the individual VMS.
This way of operation requires an expensive information structure (hard- and software) and is not suitable to cover **"critical microclimates"** which bear locally limited accident risks.

In a new approach, the German specialist in measuring ambient conditions, LUFFT, and Austrian-based technology leader in LED VMS, SWARCO FUTURIT, have launched an economical **stand-alone solution** able to cover these critical microclimates.

LUFFT's innovative, multi-functional Intelligent Road Sensor (IRS) detects road surface temperature, subsurface temperature, salt content left on the road plus calculation of freezing temperature, road state (dry, humid, wet), and distinguishes ice from snow. An inbuilt microprocessor carries out the analog/digital conversion on site, and the IRS then transfers all road state information via standard RS232 or RS485 interfaces directly to the controller of the SWARCO FUTURIT VMS. The VMS work with **energy-saving LED technology** and were optimized by FUTURIT's own optical developments. Little power consumption and a very smooth operation of the diodes ensure reliable sign function over many years without compromising the light intensity requirements of traffic applications. Graphic signals can be supported by texts in a single VMS.

This **sensor-to-sign system**, premiered during TRAFFEX 2003 in Birmingham, is the ideal solution to cover critical microclimatic situations, such as bridges or road sections in lake areas with high risk of unexpected freezing conditions. The quick processing of the sensor data into clearly readable warning messages on the LED VMS allows immediate information to the motorists and thus reduces the risk of road fatalities and injuries.

The LUFFT/FUTURIT sensor-to-sign system requires little installation work and minimizes infrastructural costs thanks to optional solar power operation. The road state information detected by one IRS can be made available for both driving directions by simply using one more VMS.

Learn more about this innovative approach to further increase road safety by contacting

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