Go!Foton To Demonstrate Enhancements To Distributed Acoustic Sensing Technology At ISE Expo

Photonics industry leader Go!Foton will display the company's recently developed advances in Distributed Acoustic Sensing at ISE Expo 2023.

SOMERSET, NJ, US, August 30, 2023 /EINPresswire.com/ -- Go!Foton, a leading innovator in optics and photonics technologies for optical networking, industrial, and medical applications, will display the company's recently developed advances in Distributed Acoustic Sensing at ISE Expo 2023, taking place this week at the Kansas City Convention Center. The Go!Foton engineering team, led by CTO Dr. David Z. Chen, will be on hand to discuss the company's breakthroughs.

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>
> *Dr. David Z. Chen, Go!Foton CTO*

Distributed Acoustic Sensing (DAS) is a robust photonics-based technology that underlies a multitude of essential monitoring applications for the environmental, energy, law enforcement, healthcare, transportation, and smart city sectors. DAS works by allowing fiber-optic cables, both active and dark, to act as an array of virtual microphones and monitor subtle changes in ambient sound. By sending a pulse of light down the fiber and monitoring the backscattered signal, DAS installations that overlay existing fiber networks can continuously detect tiny vibrations along the entire length of the cable without disturbing telecommunications traffic. The observed variations in backscattered light caused by external disturbances give valuable and timely insights into the acoustic environment surrounding the fiber.

"Go!Foton's enhancement, which we call 'Dual-DAS,' expands the current technology's capabilities by 'entangling' the two ends of the DAS implementation," Dr. Chen explained. "With Dual-DAS, one end tracks Rayleigh back-scattering as in a traditional OTDR, and the other end traces the directly transmitted optical pulse. This forward-looking 'entangled' adaptation is designed to be symmetrically reversible and is thus able to generate far more precise disturbance data than current DAS deployments, launching a virtuous cycle of enhanced AI/machine learning in conjunction with system operating software."

Go!Foton's ISE demonstration will showcase a wide variety of features and functions, including the ability to discern moving objects, differentiate the frequencies, intensities, and locations of disturbances, and determine transverse distances with respect to the fiber line. Dr. Chen added that the display unit will cover 80 kilometers with a single trace fiber link budget, and that dual units can cover much longer distances with comparable accuracy.

Go!Foton will be located at Booth 721 on the ISE Expo exhibition floor.

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