

International Scientific Conference on

# LASERS, OPTICS, PHOTONICS AND SENSORS



**Indu Fiesler Saxena**  
INNOVEDA, United States

## Acousto-ultrasonic Applications of Fiber Optic Sensing

Multichannel capability with lightweight fiber optic sensors and electromagnetic interference-free signal transmission are well-known significant advantages of fiber optical sensing. In addition, the ability of amorphous fused silica based optical fibers to operate in adverse environments for extremely long durations gives them the competitive edge, such as in high radiation of nuclear power plants and high temperatures approaching 1000 C, under which semiconductor sensors cannot survive.

Key fiber optic sensing concepts as applied to acoustics and ultrasonic detection for structural monitoring and in diagnosing anomalous operation of dynamical systems will be reviewed in this webinar as well as contemporary instrumentation capabilities.

Their applications in underwater monitoring, materials characterization in the transportation sector as well as in the energy sector will be presented.

SESSION SPEAKER