

FEATURED TECHNOLOGY:

Continuous Sensor System for Structural Health Monitoring

INVENTOR (S):

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STATUS:

Patents 6,399,939 and 7,075,424

TECHNOLOGY DESCRIPTION:

When structures, such as bridges, aircrafts, and space vehicles, age, they develop damage, in the form of cracks, in numerous locations. Timely detection of these cracks is essential for assuring safety. Current techniques for detecting these cracks are tedious, time consuming, and expensive.

Researchers at NC A&T State University have developed a cost effective single channel continuous sensor that has the potential to detect and locate crack growth in their initial stages while the structures are in-service. The timely information from these sensors can potentially prevent catastrophic failures. This single channel continuous sensor is capable of assessing the structure from extremely small sound waves emitted when the cracks grow by even a fraction of the width of human hair.

END USE/APPLICATIONS:

This technology monitors the structural integrity of different types of bridges, pipelines, pressure vessels, airplanes, space vehicles, oil rigs, nuclear reactors, turbine engines, etc.



MISSION:

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