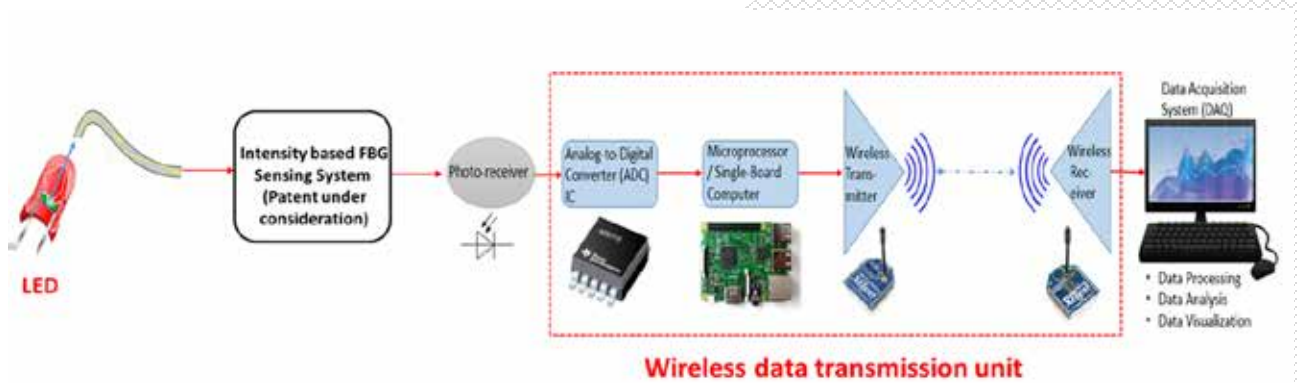


Technology Overview

- § A novel, intensity-based FBG sensor module which consists of a low-cost LED and a photodiode
- § This module is coupled with electronic circuits for wireless data transmission
- § It is compact, light in weight, low cost and its battery-based operation opens a wide range of applications



Technology Features

- § Intensity based FBG interrogation system rather than a wavelength interrogation system
- § Uses a low-cost LED light source that replaces the conventional bulky SLED sources
- § Simple interrogation system which consists of a photodiode and a chirped grating only
- § Wireless signal transmission to a base-station for remote monitoring

Benefits

- § Low cost, compact in size and light-weight
- § Low power consumption, battery operated
- § Low maintenance and easy replacement of parts
- § Robust for field monitoring

Potential Applications

- § Strain and temperature monitoring for structural health assessment of civil structures, mechanical structures, aerospace structures etc.
- § Structural health monitoring of offshore structures such as FPSO, ship's hull etc.
- § Remote monitoring of oil and gas pipe lines.
- § Geotechnical monitoring such as inclinometer, pore-water pressure meter, extensometer etc.

