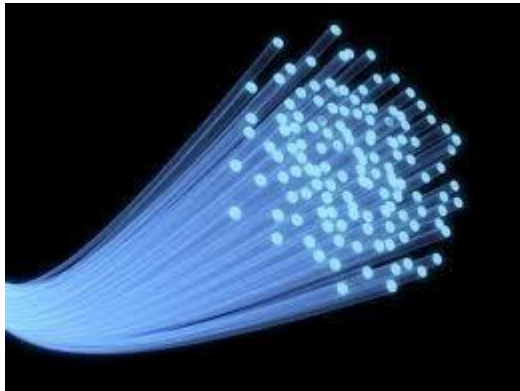


Overview



The Optical Fibre Sensors Research Centre, at the University of Limerick, have developed a number of technologies and capabilities that are suitable for a multitude of applications

Technology

Temperature Compensated Pressure Sensor

- glass, bio compatible pressure sensor with integrated temperature measurement and temperature compensation.
- sensor consists of a length of fibre optic (of any length required), which is 0.25mm in diameter, and a sensing tip which is 0.22mm in diameter.
- Pressure and / or temperature sensing in the medical, automotive, geothermal and / or industrial applications
- -20°C to 800°C is feasible.
- Patent Filed

Optical Based Gas Sensor

- No consumable parts.
- Can be designed to detect either a single gas or multiple gases
- Passive sensing only using light
- Real time monitoring
- gas sensors developed to date: SO₂, NO, NO₂, CO₂
- allow a high level of detection sensitivity (single ppm)

Refractive Index Sensor

- Different fluids have a different refractive index and can be distinguished using a refractive index sensor.
- Refractive Index of a liquid varies with temperature and pressure, the p/T/RI sensor allows for a direct compensation of these effects.
- Changes in chemical composition of the fluid can be detected in real time.
- Changes the salinity of a fluid can be monitored
- Technology applicable to
 - Oil and Gas sector: Feed zones of gas, water, condensate or crude oil can be distinguished and quantified.
 - Geothermal sector: Detecting and quantifying two phase flow within a well.
 - Hydrogeology: Realtime measuring and monitoring the salinity of water e.g. drinking water
 - Laboratory applications: Real time monitoring of changes in the chemical composition of a fluid

Commercial Opportunity

The University of Limerick is interested in seeking partners to exploit the commercial potential of these technologies by entering into licensing agreements.

Contact

John Gleeson
Technical Transfer Office
University of Limerick
Limerick
Ireland
+353-(0)61-234683
e: john.gleeson@ul.ie