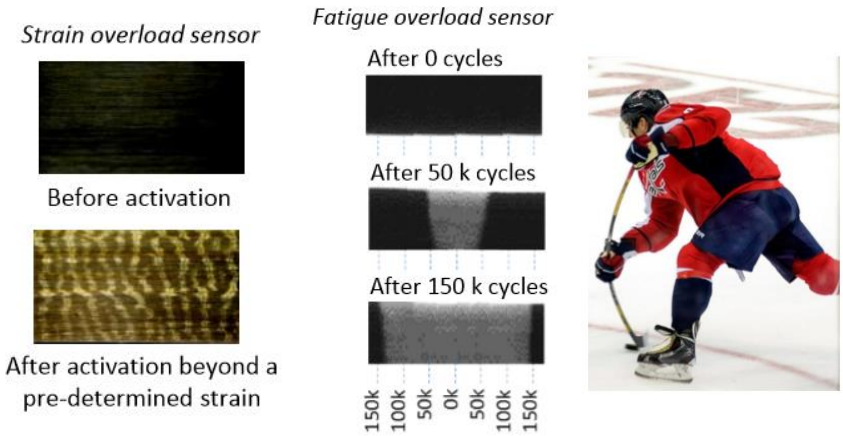
Licensing Opportunity

University of BRISTOL
Research and Enterprise Development

Composite sensors

Novel sensors provide visual indication of overload conditions



This family of novel, strip-like sensors easily attach to different parts of a structure to provide a simple and reliable indication of when critical loading conditions have been reached or surpassed. The sensors can cover all or part of a structure for a range of conditions such as strain overload, fatigue and impact.

As demonstrated in the pictures above, the strain sensor is fully black when initially manufactured, but exhibits striations when a predetermined load condition is reached in service. The fatigue sensor displays a bright band to indicate the number of load cycles experienced by the structure.

Key Benefits

- Sensing element is thin, lightweight and modular
- Easy to attach
- Easy to read and interpret with no special training
- No need for power supply or other electronics
- Low cost manufacture
- Prevents premature decommissioning of expensive components

Applications

Ideal for structures and components designed with an upper load limit or maximum number of stress reversals, e.g.:

- Composite sport goods: bicycle parts, hockey sticks, fishing rods
- Gas cylinders and pipes to reveal over-pressurisation
- Primary structures in aerospace or civil engineering
- Rotary mechanical parts

IP Status

Two patent families with applications pending.

For more information contact:
Carolyn Jenkins
Research Commercialisation Manager
Tel: +44(0) 117 42 84035,
carolyn.jenkins@bristol.ac.uk

Ref 2332, 2549, 2666

CATAPULT High Value Manufacturing

NATIONAL COMPOSITES CENTRE