

Sensor Coating Systems Ltd. (SCS)
www.sensorcoatings.com

Press Release

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Unique Thermal Mapping Technology ‘Making a Difference’ at annual Aerospace Awards

The Making The Difference Award of the Aerospace Technology Institute (ATI) has been awarded to Sensor Coating Systems (SCS), a start-up enterprise located in London. SCS offers a unique thermal mapping service to a global customer base. The technology enables the design of more sophisticated, more efficient and more reliable gas turbines in support of the Net Zero goal.

The *ATI Aerospace Technology & Innovation Awards* were announced during the annual ATI Conference at the International Convention Centre (ICC) in Wales, UK, on October 9, 2024.

The award recognises SCS's innovative contributions to the aerospace industry. The Making The Difference Award celebrates the impact of small research projects that have made a tangible difference to UK aerospace. This recognition is awarded to projects that demonstrate key technological advancements or innovations that support the sector's move toward net-zero emissions.

The specific small research project reviewed by the ATI was the MULTICOAT project co-funded through the National Aerospace Technology Exploitation Programme (NATEP) and Innovate UK. A multitude of technology advances were achieved during the course of this project by the SCS core team, in collaboration with Cranfield University and Monitor Coatings Ltd - a Castoline Eutectic company. A new detection concept was tested and successfully implemented as well as a novel methodology allowing long-term and multi-cycle engine operation. The latter provides customers a more cost-effective and faster way of testing engines, hence speeding up development times to meet demands for the design of new, more fuel efficient engines and to accommodate much needed fuel transition.

“Within a field of high-quality applications for this category, the novel technology demonstrated by SCS stood out,” said David Debney, Head of Technology for Whole Aircraft at the Aerospace Technology Institute, and Chair of the judging panel. “The SCS solution has the capability to measure temperatures of up to 1600°C and beyond with an impressive accuracy of $\pm 25^{\circ}\text{C}$. The project successfully demonstrated that thermal mapping technology can be utilised under multi-cycle test conditions where engine load conditions are changing. Existing thermal paints and coatings today usually contain toxic materials; it's therefore important to note that the solution developed in this project is also fully REACH compliant. This is a small research project with the potential to make a big impact, and I'm delighted to award SCS the Making The Difference Award”.

“We try to keep the planet cool, by keeping engines hot!” says Dr Jörg Feist, “The team is very excited about receiving this prestigious award. The judges at the ATI recognise the technical achievements the team has accomplished during the MULTICOAT project, but most importantly also the immediate commercialisation of these technical enhancements. And this is reflected through our increasing global customer base”.

SCS's novel technology is recognised as an essential tool for jet engine manufacturers. By providing accurate high-resolution temperature data that enables engineers to optimise engine design and performance, SCS's solution is expected to play a critical role in reducing emissions and driving the next generation of more efficient aero engines.

More information and technical insights can be found by visiting www.sensorcoatings.com

About Aerospace Technology Institute (ATI)

ATI is an independent, not-for-profit organisation that creates the technology strategy for UK aerospace, building on the UK's strengths and responding to the challenges faced by the UK civil aerospace sector. It provides a roadmap of the innovation necessary to keep the UK competitive in the global aerospace market, and complements the broader strategy for the sector created by the Aerospace Growth Partnership (AGP). Projects funded through the ATI Programme must align with the technology strategy *Destination Zero*.

The ATI Aerospace Technology and Innovation Awards celebrate the trailblazers of the aerospace industry, recognizing achievements that make a difference in technological advancements and the future of aerospace. SCS's win reflects the growing importance of sustainable, innovative technologies that will drive the sector's evolution toward more eco-friendly solutions.

About Sensor Coating System Limited

Sensor Coating System Limited (SCS) was spun out of Southside Thermal Sciences, an Imperial College London start up and is privately funded. Its award-winning technology (British Engineering Excellence Award, Royal Society of Chemistry, American Society of Mechanical Engineers) enables accurate temperature detection and, in doing so, assists in optimising the operation of machinery, lowering fuel costs and maintaining material integrity.

SCS provides a temperature data service on mission-critical components to a global client base in the areas of aerospace, power generation, automotive and industrial sectors. The technology is an enabling technology assisting in reducing CO2 emissions by providing crucial temperature data to design engineers. The benefits are lower emissions, but also quicker market entries for new products and lower failure rates once the product goes into the marketplace.

The company works progressively and collaborates with a number of UK and global based organisations, educational institutions, and research councils to help facilitate its R&D projects and growth in the technology sector.

About Thermal History Technology

The patented Thermal History Technology is a unique luminescence-based sensing technology which enables engineers to record past temperatures on inaccessible components. The temperature measurement capability reaches from around 150°C to 1,600°C. This makes the technology very useful for the evaluation and design of mission-critical components in harsh environments such as gas turbines or internal combustion engines.

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