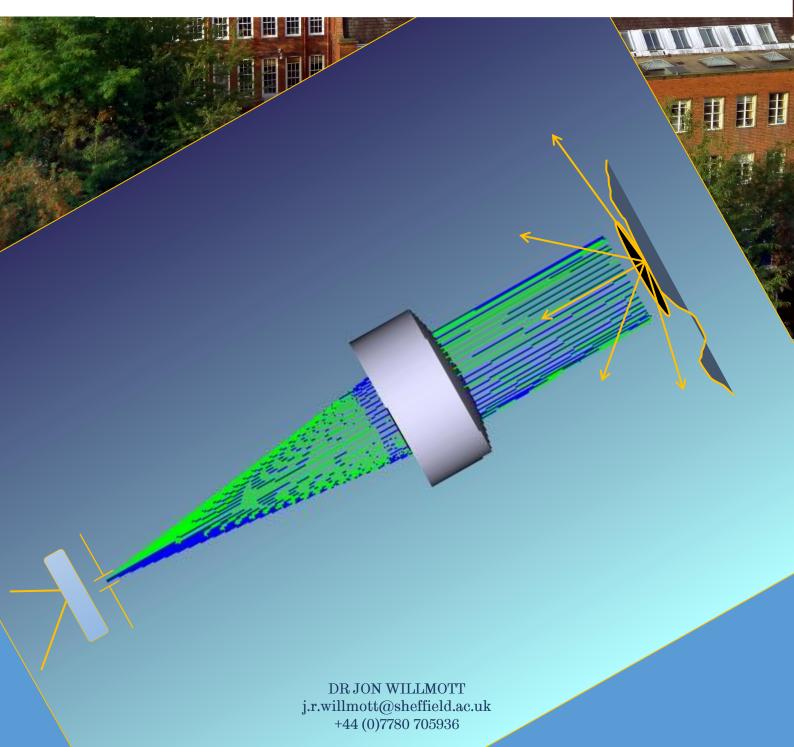


Sensor Systems Research Group

Department of Electronic and Electrical Engineering



EXPERTISE + CAPABILITIES

Founded in 2015 with a £1m investment from the UK Engineering and Physical Sciences Research Council, the Sensor Systems Research Group provides research and engineering services to industry and academia. Our expertise was founded in temperature science and infrared instrumentation.

Experience • Radiometry • Imaging systems • Temperature science • Single pixel imaging Aerosol printed electronics • Liquid crystal science • Spectroscopy Sensing in manufacturing processes

Research Capabilities

 Low uncertainty temperature measurement
 Ultra-sensitive detection

 Multi-wavelength algorithms
 Emissivity measurements

 Thermal metrology

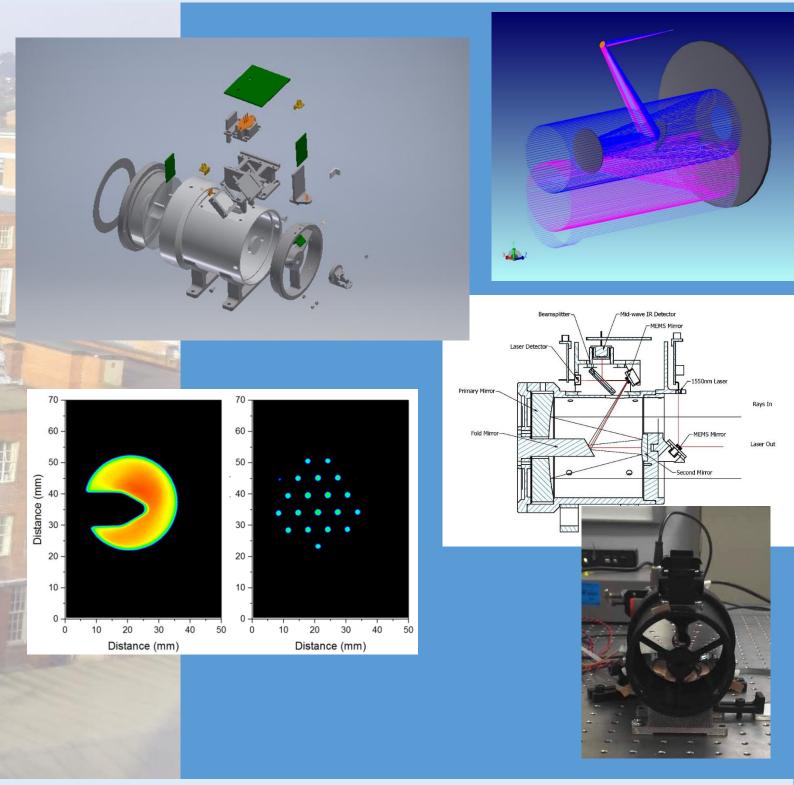
Engineering Capabilities

- Project Management
 Electronic circuit design
 PCB design
 Optical System Design
 - Fibreoptics
 - Software Engineering
 - Infrared and temperature

j.r.willmott@sheffield.ac.uk +44 (0)7780 705936

CASE SUDY: Industry

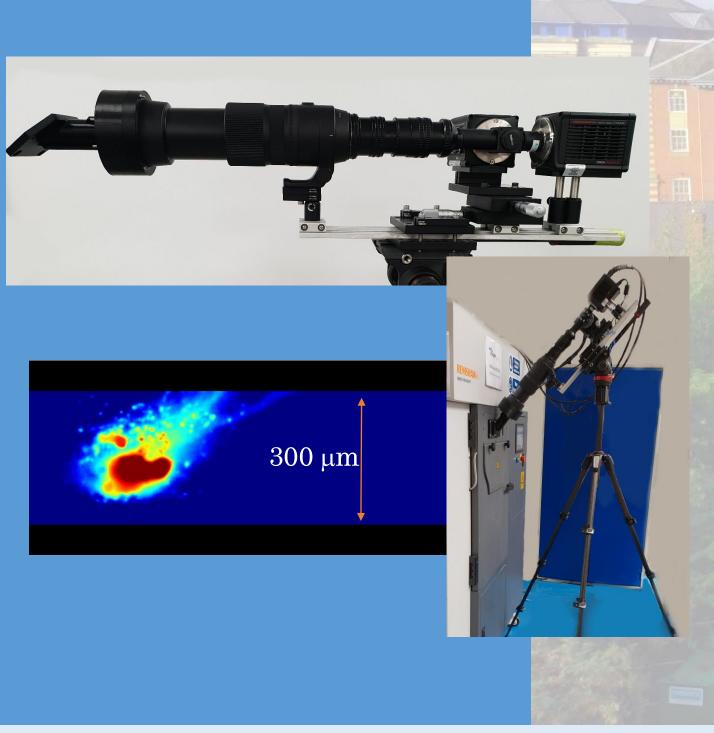
The SSG was awarded an MOD contract to develop a lightweight optoelectronic telescope capable of making both thermal images and laser ranging (LiDAR) in the same instrument.



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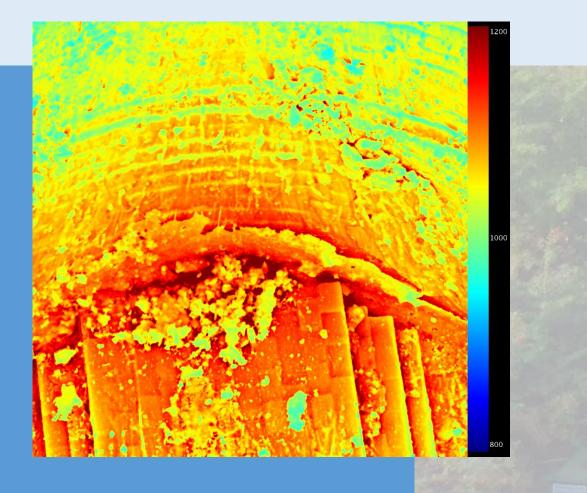
CASE STUDY: Research

In addition to the boroscope described in our optics brochure, we designed and built a 1000 frame per second, 4-megapixel thermal imaging microscope-like camera for comparison with computational models of additive manufacturing.



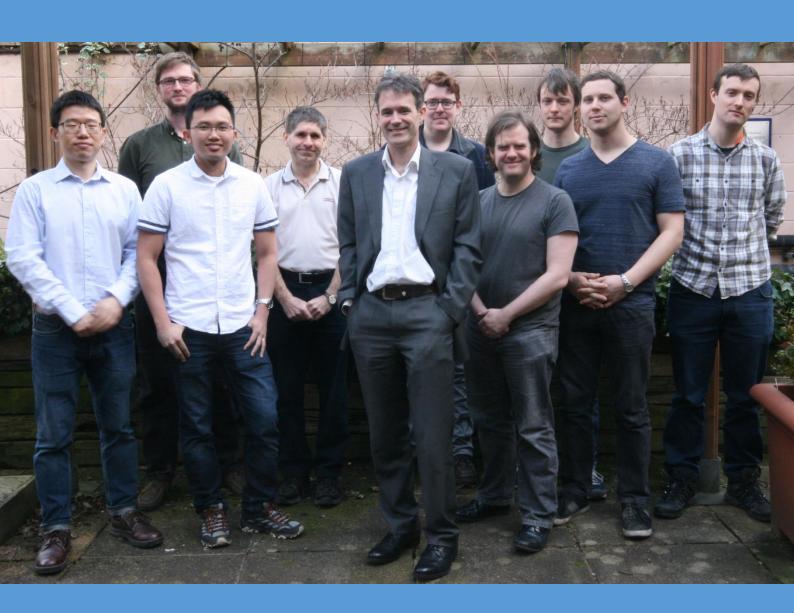
j.r.willmott@sheffield.ac.uk +44 (0)7780 705936 TEMPERATURE RESEARCH: How can we improve your temperature measurement?

- Understanding the thermal behaviour of your processes or product
- Developing thermal imaging systems specific to your requirements
- Provide high resolution images and radiometric temperature measurements



MEET THE TEAM

From left to right: Todd Zhu, Leigh Stanger, Cheong, Andy Heeley, <u>Jon Willmott</u>, Matt Davies, Matthew Hobbs, Nick Boone, Matt Grainger, Tom Rockett.



Department of Electronic and Electrical Engineering

The University of Sheffield

Portobello Centre

Pitt Street

Sheffield

 $\mathrm{S1\,4ET}$

tel: <u>+44 114 222 5436</u>