

# 1<sup>st</sup> EMPRESS 2 Workshop

A one-day conference on enhanced temperature measurement techniques for improved process control held on 5 May 2020

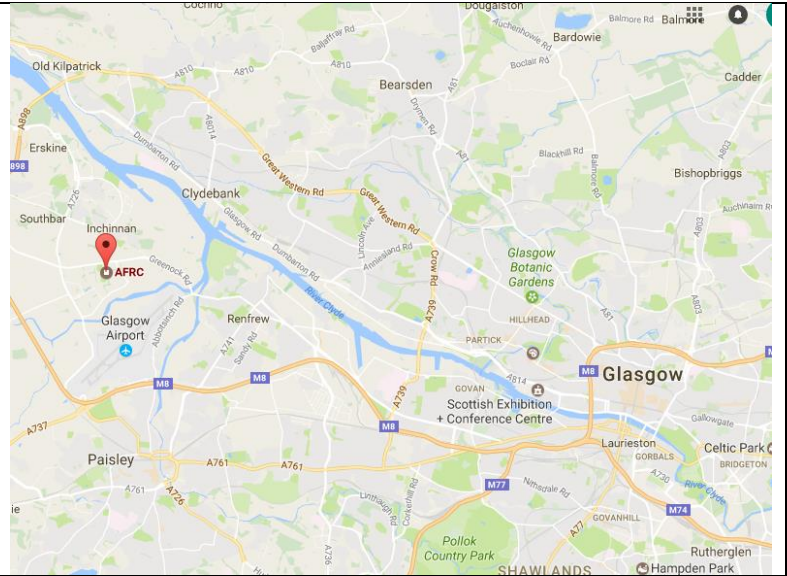
Advanced Forming Research Centre, 85 Inchinnan Drive, Inchinnan, PA4 9LJ, United Kingdom  
[www.npl.co.uk/events](http://www.npl.co.uk/events)

Tuesday 5 May 2020			
9.00	Arrival and registration		Intro & keynotes
9.10	AFRC welcome	Aurik Andreu, <i>AFRC</i>	
9.15	Welcome and introduction	Jonathan Pearce, <i>NPL</i>	
9.25	Keynote: The redefinition of the kelvin	Graham Machin, <i>NPL</i>	
9.50	Keynote: Development of a practical Johnson noise thermometer: latest progress	Paul Bramley, <i>Metrosol</i>	
10.15	Overview of WP1: Phosphor thermometry	Gavin Sutton, <i>NPL</i>	Phosphor
10.35	Temperature measurement techniques for gas and liquid flows using thermographic phosphor particles	Christopher Abram, <i>Otto-von-Guericke-Universität Magdeburg</i>	
10.55	Nuclear decommissioning applications of phosphor thermometry	Graham Machin, <i>NPL</i>	
11.15	Coffee break		
11.40	Overview of WP2: Low-drift thermocouples	Frank Edler, <i>Physikalisch-Technische Bundesanstalt</i>	Thermocouples
12.00	Flame fusion of quartz at 2000 °C	Matthew Swithenbank, <i>Heraeus Conamic UK</i>	
12.20	The use of thermocouples to measure refractory lining temperatures in a portable steel making vessel	Liam Cotton, <i>Tata Steel</i>	
12.40	The INSEVA thermocouple and current status	Trevor Ford, <i>CCPI Europe</i>	
13.00	Lunch		
13.45	Overview of WP3: Combustion thermometry	Alex Fateev, <i>Danmarks Tekniske Universitet</i>	Combustion
14.05	Thermal imaging of flames	Fiona Turner, <i>Land Instruments</i>	
14.25	Gas Species and Temperature Measurements in Harsh Environments using Tunable Diode Laser Spectroscopy	Michael Lengden, <i>University of Strathclyde</i>	
14:45	Coffee break		
15.10	Overview of WP4: Fibre-optic thermometry	Gavin Sutton, <i>NPL</i>	Fibre-optic
15.30	Long-term stability testing of an optical temperature probe at 1100 °C	Ralf Pechstedt, <i>Oxsensis Ltd</i>	
15.50	Hollow-core optical fibres for harsh environment thermometry	Eric Numkam-Fokuoa, <i>University of Southampton</i>	
16.10	Tour of AFRC		



## Venue

Advanced Forming Research Centre  
85 Inchinnan Drive  
Inchinnan  
PA4 9LJ  
United Kingdom



## Suggested hotels

Holiday Inn Glasgow Airport: [www.higlasgowairporthotel.co.uk](http://www.higlasgowairporthotel.co.uk)

Bowfield Hotel: [www.bowfieldhotel.co.uk](http://www.bowfieldhotel.co.uk)

Glynhill Hotel: [www.glynhill.com](http://www.glynhill.com)

Ingliston Hotel: <http://ingliston.com>

Ashtree House Hotel: [www.ashtreehousehotel.com](http://www.ashtreehousehotel.com)