Workshop on industrial high temperature measurement solutions

15th May 2014, 13:30 – 17:45

Laboratoire Commun de Métrologie, LNE-Cnam, La plaine Saint Denis
Conservatoire National des Arts et Métiers, 61, rue du Landy 93210 Saint-Denis – Amphitheatre

The measurement of high temperatures in an industrial setting is difficult and prone to many sources of uncertainty. Within the framework of the European Metrology Research Programme the HiTeMS project[1] has been seeking to address some of the long standing challenges associated with high temperature measurement such as thermocouple and radiation thermometer drift and window contamination. HiTeMS is now drawing to a close and this workshop is being organised to report the outcomes of the research to potential users. An overview of the project will be given followed by short but in depth presentations about the various new approaches that have been developed and trialled as part of the project. The meeting will be a workshop with time given at the end of each presentation for discussion to facilitate transfer of ideas from the researchers to the possible users of the techniques developed in the project.

A follow on project is planned and temperature measurement challenges that have not been addressed in HiTeMS will be included in that project. Participation is welcome from industrialists in any future proposed project.

Attendance is free but prior registration for the workshop is required: please confirm your presence by e-mail to mohamed.sadli@cnam.fr by the 30th April 2014.

Meeting schedule

13:30 Meeting opening – Mohamed Sadli (LNE-Cnam, France)

13:35 Overview to the HiTeMS project – Graham Machin (NPL, UK)

14:05 Traceable radiation thermometry in high background thermal radiation – Edgar Vueblan (VSL, The Netherlands)

14:35 Sensor lifetime and drift characterisation – Radek Strnad (CMI, Czech Republic)

15:05 Robust correction strategies for thermocouple drift – Frank Edler (PTB, Germany)

15:35 Coffee break

16:00 Self-validation techniques and path transmission corrections for radiation thermometry >2000 °C – Mohamed Sadli (LNE-Cnam, France)

16:30 In-situ traceability for radiation thermometry during laser processing – Klaus Anhalt (PTB, Germany)/Marko Seifert (FWS, Dresden)

17:00 Determining reference functions for novel thermocouples – Jon Pearce (NPL, UK)

17:30 Meeting wrap up, capture new requirements, summary – Graham Machin/Mohamed Sadli

[1] High temperature metrology for industrial applications