



e-newsletter n°3

January 23rd, 2018

Project meeting and Workshop

Last November 2017 Project Meeting and Workshop was held at PTB, Braunschweig – Germany.

14IND11 HIT



2nd Project Meeting (M24) of 14IND11 HIT

**PTB, Braunschweig, Germany
15 to 16 November 2017**

Figure 1 – Project meeting announcement



EMPIR 14IND11 HIT

**Workshop on Metrology for
Humidity at High Temperatures and
non-static Conditions**

Physikalisch-Technische Bundesanstalt,
Braunschweig
Nov. 16/17, 2017

Figure 2 – Workshop announcement



Project meeting

The first part of these 3 days meeting, was dedicated to project management and so, restricted to JRP partners only.



Figure 3 – Project meeting

After more than 2 years of the project, many subjects were in the agenda ! Fortunately after a day of intense work, our host organized a great social dinner!!



Figure 4 – Social dinner



Workshop

The second part of this meeting was devoted to a "Workshop on Metrology for Humidity at High Temperatures and non-static Conditions". This workshop was opened to every stakeholders involved in such topic related to their measurement or process.

AGENDA v2.0

Thursday 16 November

- 13:00 - 13:10 Welcome, introduction of attendees, meeting aims and objectives
- 13:10 - 13:30 Introduction to HIT (*Martti Heinonen, VTT MIKES*)
- 13:30 - 13:50 Different approaches for humidity generators, using concepts with carriergas-free evaporator, cold-trap and mixing design
(*Martin Still, aDROP Feuchtemeßtechnik GmbH*)
- 13:50 - 14:10 Practical aspects of acoustical humidity measurements
(*Wilhelm van Schaik, van Schaik Innovation Handling B.V*)
- 14:10 - 14:30 Calibration of humidity sensor prototypes at high temperature and pressure
(*Andrea Peruzzi, VSL*)
- 14:40 - 14:50 Humidity measurement in steam oven for cooking applications by means of lambda sensor (*Eric Georgin, CETIAT*)
- 14:50 - 15:20 Coffee break
- 15:20 - 15:40 Need for reliable humidity measurements in harsh conditions (*Robin Farley, MBW*)
- 15:40 - 16:00 Development of a new laser-based hygrometer (*Steven Wagner, TU Darmstadt*)
- 16:00 - 16:20 Sampling-free, High-speed Laser-Hygrometry for the (metrological) characterization of sensor dynamics (*Florian Bubser, PTB*)
- 16:20 - 16:40 Transient humidity measurements in storage of pharmaceuticals
(*Slaven Ranogajec, Univ. Ljubljana*)
- 16:40 - 17:00 Summary and Day 1 close

Friday 17 November

- 09:00 - 09:05 Opening Day 2
- 09:05 - 09:25 Assessment of nutritional quality of processed food under a metrology-sound temperature and humidity control approach (*Laura Cavallarin, CNR*)
- 09:25 - 09:45 Humidity calibration equipment for food process applications
(*Vito Fericola, INRIM*)
- 09:45 - 10:05 Software tools for modelling temperature dependence of isotherms and transient water activity in selected materials (*Gino Cortellessa, UNICAS*)
- 10:05 – 10:25 New approach to calibrate a RH probe and its application to field calibrations
(*Shahin Tabandeh, INRIM*)
- 10:25 - 10:50 Coffee break
- 10:50 - 11:10 Challenges of environmental testing
(*Martti Heinonen, VTT MIKES; Juha Wilenius, Huawei Technologies Oy Finland Co. Ltd*)
- 11:10 - 11:30 Calibrations in LEAN manufacturing environment (*Tomi Pietari, Vaisala*)
- 11:30 - 11:50 Calibration of humidity sensors at non-static conditions
(*Martti Heinonen, VTT MIKES*)
- 11:50 - 12:00 Summary and Workshop close

Figure 5 – Agenda of the workshop / also available [here](#)



We were glad to have many speakers coming from various professional backgrounds such as National Metrology Laboratory, Academic laboratory, Instruments manufacturer or Industrial end-users. Almost 30 people have attended the workshop and have shared some fruitful exchanges or discussions.



Figure 6 – Speakers in action

All the presentations are available in open and free access and can be downloaded [here](#).



Figure 7 – Thank you to all attendees!!

Acknowledgements

We would like to thank again Olav Werhahn and Henning Bohlius and all their colleagues from PTB involved in the organization of this successful meeting!!