

Great success of the workshop “NIR & wood sounds good”

Roberto Giangiacomo

Against the magnificent backdrop of the Dolomites, the workshop entitled “Application of NIR spectroscopy for wood science and technology research “NIR & Wood Sounds Good” was held in San Michele all’Adige, Italy on 15 April 2014. The event was co-organised by the Italian Society for NIR Spectroscopy, the National Research Council-Trees and Timber Institute, and the COST Action FP 1006 “Bringing new functions to wood through surface modification”. The workshop was possible thanks to the efforts and skills of the two main local organisers: Jakub Sandak and Anna Sandak (who also found the time to prepare marvellous cakes for the coffee breaks!!).



The local organisers, Anna Sandak and Jakub Sandak.



View of participants.

Unfortunately, during the period of organisation of the event, Dr Manfred Schwanninger, planned as one of the main scientific contributors, passed away on Christmas day 2013. For this reason, the workshop was dedicated to his memory and, after the introduction of Tiziana Cattaneo, President of the Italian Society for NIR Spectroscopy, and Martino Negri, representing the Director of the host Institution, his colleagues and friends Roger Meder, Satoru Tsuchikawa, Jakub Sandak and Anna Sandak made a brief presentation of Manfred, recalling also some touching anecdotes (read also http://www.impublications.com/subs/nirn/v25/N25_0118.pdf).

The audience of 35 scientists representing 10 countries besides Italy exceeded all expectations. Foreign scientists had the opportunity to attend the workshop thanks to the financial support of COST Action FP 1006 which covered travelling expenses for the two overseas keynote speakers. The first of these was given by Roger Meder from CSIRO, Queensland, Australia. He gave a talk on “NIR spectroscopy and the forestry value chain” presenting the wide field of applications nowadays available thanks to the development of fibre optic probes, portable and handheld instruments: applications covered the range from assessment of seedlings in the glasshouse to performance measurements of final products.

The second keynote was given by Satoru Tsuchikawa from the Graduate School of Bioagricultural Sciences, Nagoya University, Japan on “Recent topics due to on-line and at-line technique”. He described a “newly-designed NIR spectrophotometer with a linear image sensor for high speed acquisition of the NIR spectra in fast moving wood scenarios. The feasibility of NIR spectra to predict moisture content (MC) and

modulus of elasticity (MOE) was also investigated”. Dr Tsuchikawa’s group have designed a novel densitometer consisting of “a continuous wave NIR laser source and an avalanche photodiode module as the detector, which can rapidly and non-destructively measure the density of wood. By conducting a validity evaluation with statistical coefficients, it was shown that the constructed system is as accurate as a conventional x-ray densitometer”.

The workshop then sub-divided into three sessions, more specific for particular aspects: NIR and forest, NIR and timber, NIR and wood surface. Fifteen scientists made their presentations and the abstracts can be found at <http://bit.ly/1jab4k6> or at <http://bit.ly/1hc6ceG>

The organisers are in the process of obtaining permission from the authors to release their slide presentations onto the SISNIR and IVALLSA (Italian Trees and Timber Institute) websites.

The workshop concluded with a social dinner at which the organisers met almost all of the international participants enjoying food and wine while discussing the results of the meeting and sharing opinions, ideas, and future developments.