

Fostering knowledge exchange around sensors

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The sensors@eawag working group organized the second workshop to foster knowledge exchange around sensors, loggers, wireless communication technologies and electronics. The goal was to exchange information between the departments and open discussion about current, new or future applications. 20 interested scientists and technicians attended the meeting initiated by Bernhard Wehrli, which was held in Kastanienbaum for the first time.

The morning started with seven input presentations on the challenges being faced in different projects. This ranged from high-frequency monitoring of lakes, to building ion-selective electrodes which are capable to measure ammonia in challenging environments. Also, several ideas were discussed how to best construct an integrated floatable sensor platforms to measure live changes of water composition or how to remotely access a custom-made Ferry-box on lake Tanganyika. Regarding sensors, quality of pH probes were discussed and different applications on image-based measurements and video data processing. Last but not least, the pros and cons of different telemetry options, such as satellite or low-power radio networks where discussed.

In the afternoon, different hands-on workshops took place: current electronics and logging capabilities, e.g. brief introduction to the Arduino platform, what it takes to actually implement a functioning system, e.g. in LabVIEW Embedded.

Looking behind the scenes of other projects was exciting for the participants. The most important conclusion from the exchange was, that there isn't one-fits-all solution for operating and accessing data from remote monitoring stations. However, Eawag is having a suite of technologies and the required tools to develop good solutions for experimental challenges.



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