OAGM Workshop 2022

Digitalization for Smart Farming and Forestry

Session 3: November 8, 2022 (online only)

- 15:00 Opening
- 15:05 Keynote talk
- 15:35 Full papers II
- 15:55 Break
- 16:05 Student papers + Spotlights II (10 minutes)
- 16:55 Panel discussion (all papers)
- 16:10 Demos /Break
- 17:30 Closing

The attendance of the workshop is free of charge via the following link:

https://bokuvienna.zoom.us/j/96837019997

- Meeting-ID: 968 3701 9997
- Mobil:
  - +436703090165,,96837019997# Austria
  - +43720115988,,96837019997# Austria

Supported by:

DIGITALIZATION AND INNOVATION

Keynote Talk

Uptake & usage of Smart Farming in Austrian agriculture

Martin Hirt (Austrian Chamber of Agriculture)

Abstract

In 2021 Austrian Federal Institute of Rural Education and Training conducted a survey among 1.000 farmers regarding attitudes, motivation and investment intentions towards increasing digitization in Austrian agriculture. The study aimed to provide valuable insights into actual usage and intended uptake of digital and precision farming technologies since this has been very much discussed since several years. While general attitude towards digitization seems to be quite "positive-pragmatic" (only 11% stated to be sceptical or negative), the actual usage vary largely between technology groups: Low-cost solutions in farm management like nutrient management recording are used more often than specific precision farming technologies. When asked about motivations for using digital technologies, farmers don't argue with higher yields or performance but rather with more easier environmental recording (73%), less physical strain (65%) and increased time flexibility and leisure time (59%). Coming to the barriers of a quicker uptake, they stated mainly economic factors like doubtful cost-benefit considerations (70%), initial investments (69%) and running costs (62%). It's interesting that even while most farmers named themselves as well-informed about new technologies in farming, a high share stated to be open for visiting further training (68%) or even individual advisory (59%) dealing with digital technologies in their specific agricultural branches.

Full Papers III

Exploring Learning-Based Approaches for Bomb Crater Detection in Historical Aerial Images

Marvin Burges and Sebastian Zambanini

Student Papers

Automated nuclear morphometry as a prognostic marker in canine cutaneous mast cell tumors

Eda Parlak, Andreas Haghofer, and Christof A. Bertram

Modeling the Diffusion of CO2 inside Leaves

Yannis Sauzeau, Walter G. Kropatsch, and Jiří Hladůvka

Spotlight Papers II

In Defense of Information Plane Analysis

Mina Basirat, Bernhard C. Geiger, and Peter M. Roth

Computer-assisted mitotic count using a deep learning-based algorithm improves interobserver reproducibility and accuracy

Christof A. Bertram, Marc Aubreville, and Robert Klopfleisch

A Modern Approach for Early Wildfire Detection

Kurt Winter and Peter M. Roth