VIRAL

Venue: Faculty of Agriculture and Food Technology, University of Mostar. Biskupa Čule bb 88 000 Mostar

On line: Zoom platform

WP 2, activities set by 2.1: Improved competences of use of ICT in agriculture

Theme: 2nd training with attention on mobile applications, robotics and drones in agriculture

Trainee: participants from partner's institutions from Bosnia and Herzegovina, Serbia and Montenegro. List of participants is added. Additional trainee followed training on Zoom.

MEETING MINUTES

Training with aim of improving competences on use of ICT in agriculture was scheduled by project application to be held in Podgorica Montenegro and organized by University of Donja Gorica in summer of 2020. Due to the special measures introduced since COVID 19 virus pandemic we were forced to change plans. Since majority of partners are from Bosnia and Herzegovina it was decided to relocate training in Mostar with presenters from Bosnia and Herzegovina, Montenegro, Slovenia and Netherlands. Training was held in October 6th and 7th and also streamed on ZOOM platforms. On this way it was possible to participate even if person could not attend training in person. In a line with that some of the presentations were done in person and other were presented from distance by Zoom platform.

The workshop was intended primarily for teaching staff and students in master and doctoral studies of higher education institutions in Bosnia and Herzegovina and Montenegro, but also for other interested individuals, primarily participants in the VIRAL project and representatives of the agribusiness sector. Workshop agenda is added to the report.

The lecturers were professors, researchers, professionals and administrative staff.

Training was open with greetings from Faculty (dean Ivo Ostojić, professor) and University management (vice rector professor Sanja Bijakšić) and short guidelines on training technical with welcome notes and thanks to all participants by project coordinator prof. dr. Miljan Cvetković.

Through the first day of a workshop, 6 topics of importance for ICT in the field of education and practical application in agriculture and food industry were presented:

Jurij Rakun - *on line* University of Maribor	*Robotics in Agriculture*
Tomo Popović - *on line* University Donja Gorica	*Precision Agriculture based on IoT, Cloud, and Mobile Apps*
Miljan Erbez Ministry of Agriculture, Forestry and Water Management of Republic of Srpska	*OPTIMILK – meal rationing application for dairy cows*
Mladen Zovko University of Mostar	*IT systems in Integrated Plant Production – useful tool or need?*
Faris Seferagić META 5, doo	*Journey from Agriculture to IT company*
João Valente – *on line* Wageningen University and Research	*Practical use of drones in Agriculture*
Nikola Jovanović The Bosnia and Herzegovina Directorate of Civil Aviation	*Regulation on drones in B and H*

The lecturers were done by presentation at the location or on line, and time for questions and answers at the end of sesions. Q and A was possible to all attendee thanks to the Zoom platform.

All lecturers expressed interest in further cooperation with project through additional communication, distribution of their work or other activities. Special intrest was in presentation done by young start up company Meta 5 due to their interested story on hackaton start and possible future conection with project on this subject. Lectureres were not only from academia but also from administration (ministry and state agency) so all targeted groups were addressed.

Second day was reserved for field visit. We have visited company Jaffa komerc, one of the project partners from business. Company is involved in production and export / import of fruits, vegetables and winegrape. Second visit was done to the company Hercegovina vino involved in winegrape production, wine and juicess processing. They explained their vision and needs for ICT in their scope of work.

After the workshop, the participants were sent an evaluation form to evaluate trainig on different points: lecturers, organisation, content of training and so on.
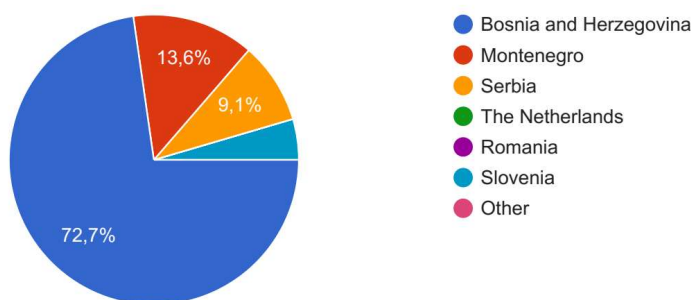
It was responded by 22 participants. They have found training usefull and relevant, with knowledgable and well prepared trainers/ lecturers with interested topics. Also the duration of the event and overall expectation were positivly graded.

Some of the results can be seen further on:

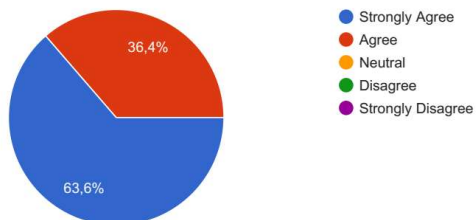- Participants origin (not all participants fulfilled questionnaire):

3. Country

22 одговора

- Bosnia and Herzegovina
- Montenegro
- Serbia
- The Netherlands
- Romania
- Slovenia
- Other

13,6%
9,1%
72,7%

- ### Evaluation of content and lecturers/trainers

4. The training content was useful and relevant

22 одговора

- Strongly Agree — 63,6%
- Agree — 36,4%
- Neutral
- Disagree
- Strongly Disagree

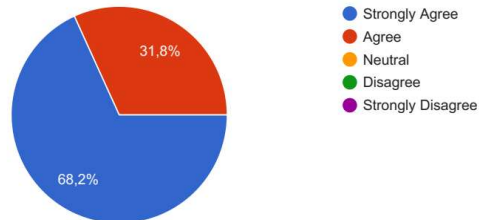**5. The facilitator/trainer/lecturer was well prepared and knowledgeable about the event topics.**

22 одговора

- Strongly Agree — 63,6%
- Agree — 36,4%
- Neutral
- Disagree
- Strongly Disagree
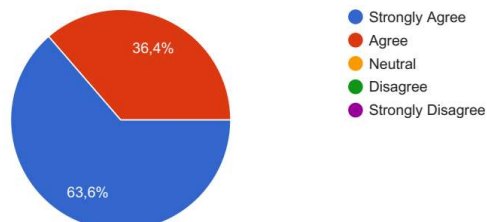
7. The training duration was appropriate to produce new learning of the topic.

22 одговора

- Strongly Agree — 68,2%
- Agree — 31,8%
- Neutral
- Disagree
- Strongly Disagree

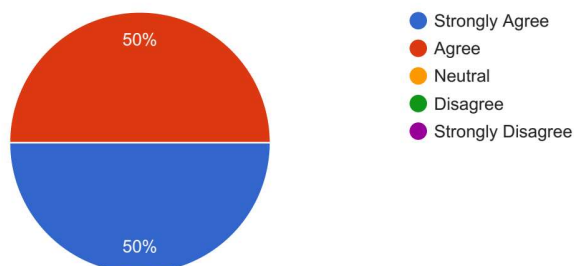- ### Premises and conditions were evaluating positively:

6. The facilitator/trainer/lecturer approach was appropriate.

22 одговора

- Strongly Agree — 50%
- Agree — 50%
- Neutral
- Disagree
- Strongly Disagree

Perhaps the most valuable part was in the comments. Some of the comments were:
- Lectures were on high level and interesting topics.
- Valuable information gained from the Workshop.
- Diversity of topics presented on the workshop
- Lecture by the youngest lecturer (i.e. META 5)
- I like the approach of connecting the real sector, research, science and government.

And some critical one like: duration of some lectures were longer than predicted, obligatory masks, and remark that mobile applications can be limited due to the battery durations.

So we should conclude with final remarks:
- Cooperation among academia, real sector, farmers and authority in the topics of better ICT use in agriculture is needed. They should exchange experiences and open dialogue on what should be addressed and what is already available for implementation.
- Training are welcomed by mixed audience and one to two days' duration is desirable.
- ICT is the area where we could learn from young people, ask them for ideas and easy solutions.
- We should include young startup companies and linked them to students involved in projects for other project outcomes (hackathons, expo…).

Mostar,
26.10.2020.

Prepared by:

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