# VIRAL

MEETING MINUTES

Recognizing the need for the teaching staff in the sector of agriculture and electrical engineering to get acquainted with the novelties in the application of information and communication technologies in the field of agriculture, an introductory workshop on this topic was held. Strengthening the capacity of teaching staff is one of the most important goals of the Erasmus + VIRAL project. Due to health security (pandemic caused by COVID 19 virus), the first introductory workshop in a series of trainings on the application of information and communication technologies in agriculture within the VIRAL project, was organized on September 16th, 2020 in the period from 3.30 to 6.30 PM.

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. Having in mind the specifics of the organization itself, the formal host of the meeting was the University of Banja Luka. The moderator of the meeting was Dragan Brković. All partner institutions are informed in a timely manner about the most important details of the organization itself through the lecture program (Appendix 1 - Workshop Agenda).

The activity was implemented within the work package 2 (WP2.1) whose coordinators are the University of Donja Gorica and the University of Wageningen.

87 participants applied for the workshop through online registration (Appendix 2 - registration form for participation in the workshop) (Appendix 3 - list of registered participants). The workshop itself was attended by 77 participants to a greater or lesser extent. Participants were from project consortium partner institutions, but also from other institutions out of project consortium. The largest number of participants were from Bosnia and Herzegovina and Montenegro, almost equally represented by gender with the consent of all participants that the materials from the meeting can be used for further distribution and popularization of this topic.
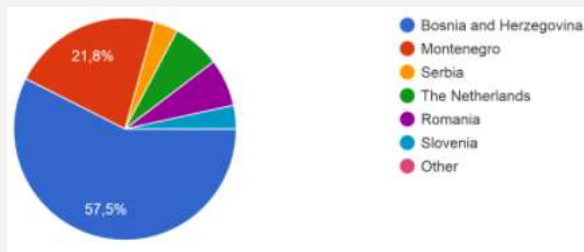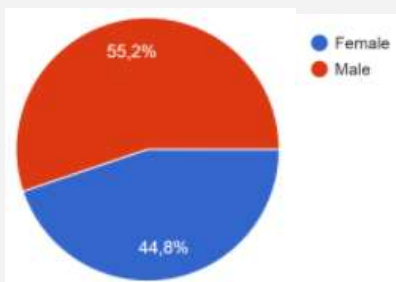

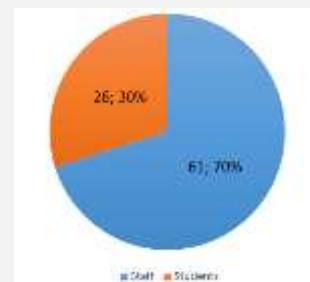Graph 1. Representation of participants by countries
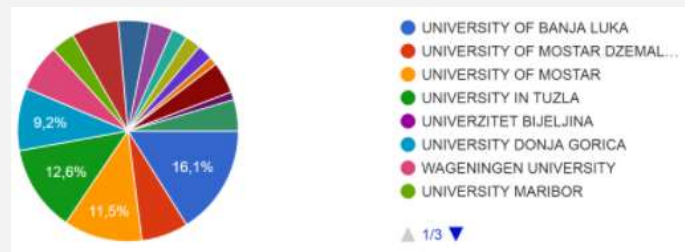
Graph 2. Representation of participants by institutions

26 students registered for the workshop, mostly from the second and third cycle of studies, including a number of them currently engaged in the teaching process at their institutions.

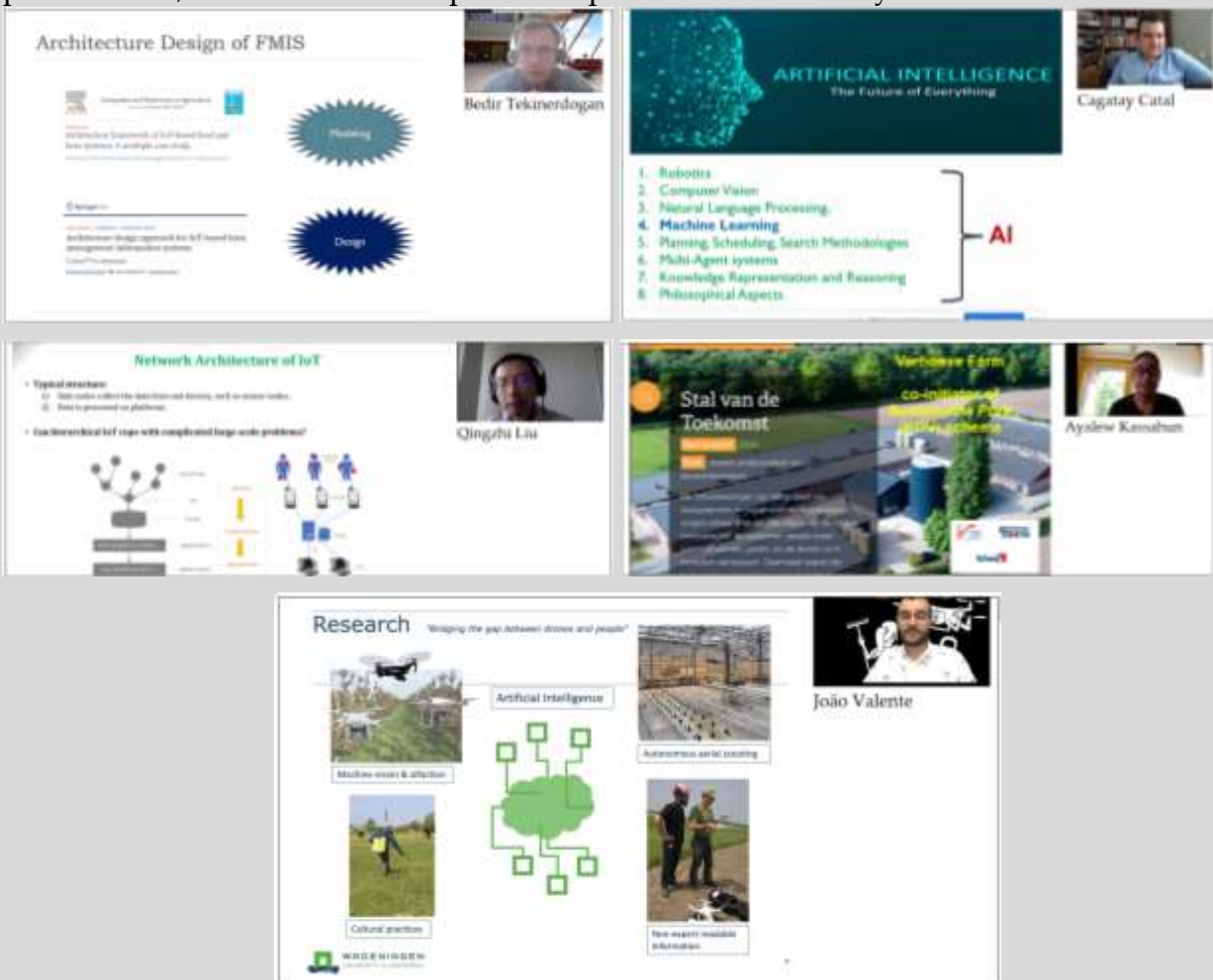Graph 3. Representation of participants by gender

Graph 4. Representation of students registered for the workshop

The lecturers were professors and researchers from the Information Technology Group of the University of Wageningen. At the very beginning of the workshop, the lecturers and participants were greeted by the project coordinator prof. Dr. Miljan Cvetković and thanked everyone for their participation.

He especially thanked the project officer Giulia Moro for managing to attend one part of the workshop. Through the introductory workshop, 5 topics of importance for ICT in the field of education and practical application in agriculture and food industry were presented:

Bedir Tekinerdogan	Architecting IoT Based Farm Management Information Systems
Cagatay Catal	Machine Learning/Deep Learning in Agriculture
Qingzhi Liu	IoT in Agriculture
Ayalew Kassahun	Business-IT Alignment in Agri-Food Supply Chains
João Valente	Drones in Agriculture

The lecturers held their lectures by "sharing" the presentation with the participants and giving their lecture. The lecturers strictly adhered to the scheduled time for presentation, which was of special importance for the dynamics of the workshop.

At the end of the lecture, part of the time was appointed for the questions and discussion, which those interested used to ask additional questions to the lecturers or ask for additional clarifications.


The fact that 55 participants attended the entire workshop until the very end speaks of the quality of the workshop. All lecturers expressed interest in further cooperation with stakeholders, through additional communication, distribution of their work or other forms of joint activities.

After the workshop, the participants were sent an evaluation form (Appendix 4 - evaluation form) through which they could assess the organization of the workshop and the quality of lectures.

The training fulfilled the expectations of the participants (Table 1a, Graph 11), due to its relevance and useful information (Graph 6), good organization (Graph 10), excellent lecturers, their good preparation and attitude during the workshop (Graph 7 and Graph 8).

When defining the training, the time required for the training should be taken into account in accordance with the content and the possibility of presenting more practical examples (Table 1b).
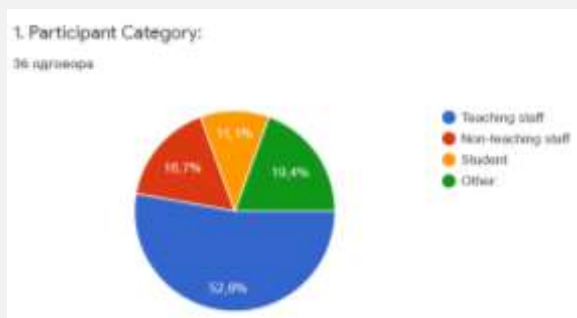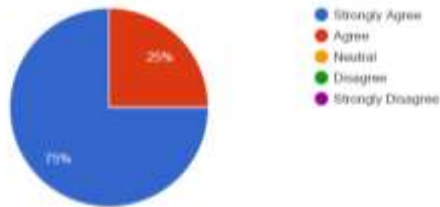

Graph 5. Category of participants
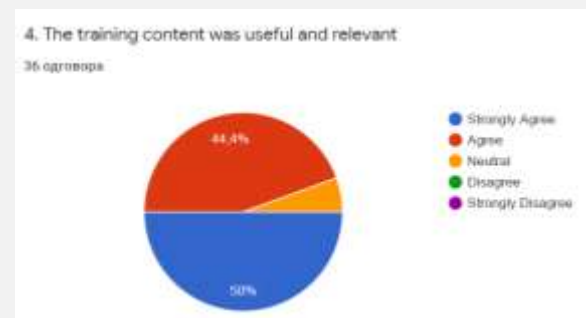
Graph 6. Relevance of training content

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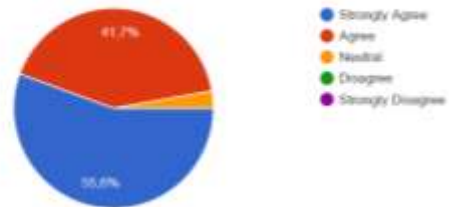
36 одговора

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

Graph 7. Good preparation of lecturers

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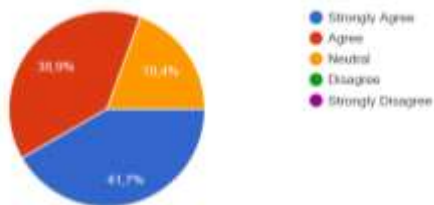
36 одговора

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

Graph 8. Appropriate lecturer approach

7. The training duration was appropriate to produce new learning of the topic.

36 одговора

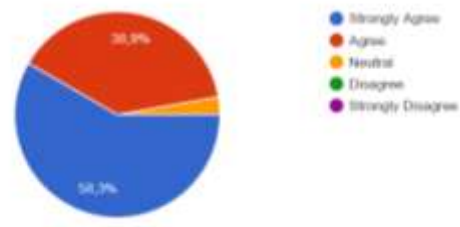- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

Graph 9. Appropriate training length

8. The training platform and conditions were appropriate.

36 одговора

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

Graph 10. Good platform convenience

11. The event fulfilled my expectations.

36 одговора

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
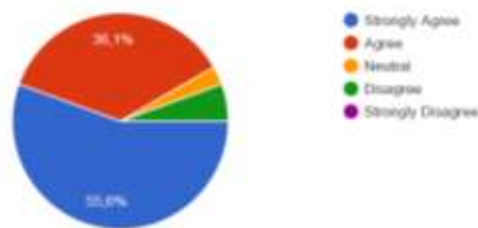
Graph 11. The training met expectations

Table 1a. Workshop participants' comments
All praise, his training was more than useful for me.
Facilitator, trainer, lecturers were great! In fact, there is little to say excellen!
It was top quality lectures with knowledgeable lecturers.
Excellent access to both material and participants!
Diversity of topics prepared for wider audience.
New information about subject.
The presentation itself was very well organized and presented.
Relevant content for my research
An excellent and detailed overview of topics through presentations
New approach of ICT usage in Agriculture area.
Involvement of the speakers and topics.

Table 1b. Suggestions of workshop participants

More links to agricultural practices could have been provided.
Sometimes too fast in explaining too many things. Maybe a correction of time (45 min instead of 30 min per presentation) or reduction of presentations content would be more effective.

The most significant results of the workshop are the following:

- o the workshop enabled the participants to get acquainted with the latest achievements in the field of ICT from renowned lecturers;
- o the workshop provided the first official introduction and contact with most colleagues from Wageningen, the wider academic community in BiH and Montenegro, as well as Romania, Slovenia and Serbia;
- o the introductory workshop created the preconditions for the continuation of other trainings and thus the successful continuation of the work package 2;
- o established contact for all interested in further cooperation and development of new ideas and joint activities;
- o workshop participants will receive a certificate of attendance at the workshop, which for younger colleagues, especially students, may be important in their further progress.

For all interested, who were not able to attend the workshop, the appropriate materials are available on the project website:

a. **The whole workshop presentation and recording**
   https://www.youtube.com/watch?v=muizyEVFj1o
b. **Bedir Tekinerdogan presentation and recording**
   https://www.youtube.com/watch?v=iqpQUevFgxE
c. **Cagatay Catal presentation and recording**

   https://www.youtube.com/watch?v=8no-Q4rQ4k0
d. **Qingzhi Liu presentation and recording**
   https://www.youtube.com/watch?v=DDsvknr_YI0
e. **João Valente presentation and recording**
   https://www.youtube.com/watch?v=r1ypy7vfHJI

Banja Luka, Wageningen
28.09.2020.

Prepared by:
Dragan Brković, UNIBL; Miljan Cvetković, UNIBL
Bedir Tekinerdogan, WUR