Project Title:

MODERNIZING AGRICULTURAL PRACTICE USING INTERNET OF THINGS

Project Acronym:
MAPIoT

Grant Agreement number:
20-COP-0019

Subject:

REPORT OF QUESTION ANSWERING RESPONSES ABOUT COURSES ON SUMMER SCHOOL SIBIU 2023[1]

Dissemination Level:
PUBLIC

Project Coordinator:
"Lucian Blaga" University of Sibiu

Contributors:
ULBS/ USN

Revision	Preparation date	Period covered	Project start date	Project duration
V1	August 2023	Month 20-21	01/12/2021	24 Months

This project has received funding from SEE 2014-2022 Grant agreement No 20-COP-0019

[1] The digital materials do not reflect the views of Financial Mechanism Office (FMO), and they do not purport to be representative of the countries, regions and themes they illustrate. The use of the materials does not imply endorsement by the FMO, the Donor States, the Beneficiary States, or any other stakeholder of the EEA and Norway Grants. The FMO is not liable for any law infringements by third parties in the context of the operation and use of the media library.

Table of Contents

1 Executive Summary

This document refers to the centralized answer of the students about courses organized on the Summer School in Romania in period 17 July 2023 – 30 July 2023 in Sibiu, Faculty of Engineering. Details about organized summer school are presented in deliverable "Second Summer School Activity Report 2023".

At the end of each course, each student received an anonymous questionnaire in which he was asked for his opinion related to certain aspects of the respective course. All students' answers were centralized in this deliverable. The template for the questionnaire is presented in deliverable "QA_C1_Training_evaluation_*.doc".

The students were asked to specify, based on 5 levels of satisfaction, the degree of satisfaction regarding the following aspects:

- By the topic(s) of the training?
- By the format of the training?
- By the duration of the training?
- By the teaching method of the training?
- By the (equipment) resources used and available?
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?
- By the availability of additional materials?
- By the quality of the writing?

At each question can be offered also some comments and recommendations. In the second part of the questionnaire the student can suggest from his point of view some positive points about the training, the main weaknesses of the courses and whether it was beneficial or not for his expectations.
For each course, an indicator that reflects average value obtained of the course is computed. This value will be a number in between 1 and 5. For compute this indicator each satisfaction level will be converted into a number as follow:

- Most satisfied - 5
- Satisfied – 4
- Moderately satisfied – 3
- Rather dissatisfied – 2
- Not at all satisfied – 1

Each course has a code and in Table 1.1 the names of the courses and the corresponding code are listed. In some centralizing tables, only the respective course code will be used.

Course Name	Course code
AI (neural networks) + GA (genetic algorithms) – theory and applications	C1
IoTs sensors and actuators – theory and applications	C2a
IoT communication – theory and applications	C2b
IoT cloud integration – theory and applications	C2c
Using AI in fermentation process – theory and applications	C3
Digital design of food manufacturing processes – theory and applications	C4
Drones for gathering images and Computer Vision – theory and applications	C5
Assembly lines for picking fruits / vegetables – applications	C6
Develop your own business in agriculture and food industry – theory	C7

Table 1.1 The code of organized courses in the summer school 2023

2 Centralization of answers for each course

2.1 Course C1 - AI (neural networks) + GA (genetic algorithms) – theory and applications

This course took place on 17.07.2023 afternoon, in Room B401 at Faculty of Agricultural Sciences, Food Industry and Environmental Protection (ASFIEP) from Lucian Blaga University of Sibiu (ULBS). For this course 20 students completed the questionnaire, and the centralized response is presented in Table 2.1, where is presented the number of students who checked that option.

Question	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	13	5	2		
By the format of the training?	11	9			
By the duration of the training?	8	9	3		
By the teaching method of the training?	14	3	3		
By the equipment resources used and available?	11	8	1		
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	16	3	1		
By the availability of additional materials?	15	4	1		
By the quality of the writing?	16	2	2		

Table 2.1. Summary of answers for course C1in Summer School 2023

The indicator of average values obtained by this course is 4.569.

In Figure 2.1 are presented centralized answers in percents for each satisfaction degree for all questions.

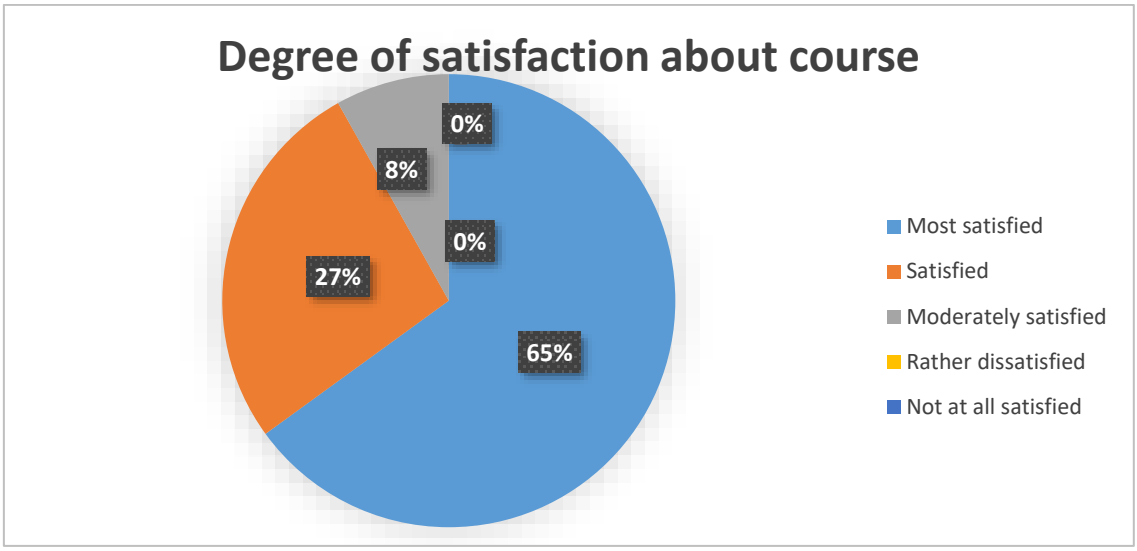

Figure 2.1 Degree of satisfaction about course C1 in Summer School 2023.

Comments provided by students regarding this course, separate for each question:

- By the topic(s) of the training?
  - Interesting Topic
  - Difficult concept to grasp.
- By the format of the training?
- By the duration of the training?
- By the teaching method of the training?
  - The software we got to use have some errors.
- By the (equipment) resources used and available?
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?
- By the availability of additional materials?
- By the quality of the writing?

- Main positive points of the training:
  - Getting to understand very complex topics using modern teaching methods.
  - Cool information
  - It was very interesting to see how the work can be improved and how the profit can be optimized.
  - It was very informative and interesting.
  - New learning topic.
  - For A1, building a neural network from scratch would be a nice addition.
  - Complex topics / modern teaching methods.
  - I like the topic.
  - I love that we could simulate fermentation and then compare results to check accuracy.
- Main weaknesses of the training:

- There was a lot of information and not as many practical things.
- Only theory was tiring.
- Not enough time for further understanding.
- More days could be assigned for these topics.
- Very hard to grasp at a beginner level.

- Do you consider the training valuable regarding your initial expectations?
  - I expected to learn about GA, and I did gather some powerful knowledge.

2.2 Course C2a - IoTs sensors and actuators – theory and applications

This course took place on 19.07.2023 all day in Room IE303 at Faculty of Engineering. For this course 20 students completed the questionnaire, and the centralized answers are presented in Table 2.2, where is presented the number of students who checked that option.

Question	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	15	4	1		
By the format of the training?	14	5	1		
By the duration of the training?	9	4	6	1	
By the teaching method of the training?	13	3	3	1	
By the equipment resources used and available?	13	5	2		
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	10	8	1	1	
By the availability of additional materials?	11	7	1	1	
By the quality of the writing?	13	5	2		

Table 2.2. Centralized answers for course C2a in Summer School 2023

The indicator of average values obtained by this course is 4.456.

In Figure 2.2 are presented centralized answers in percents for each satisfaction degree for all questions.

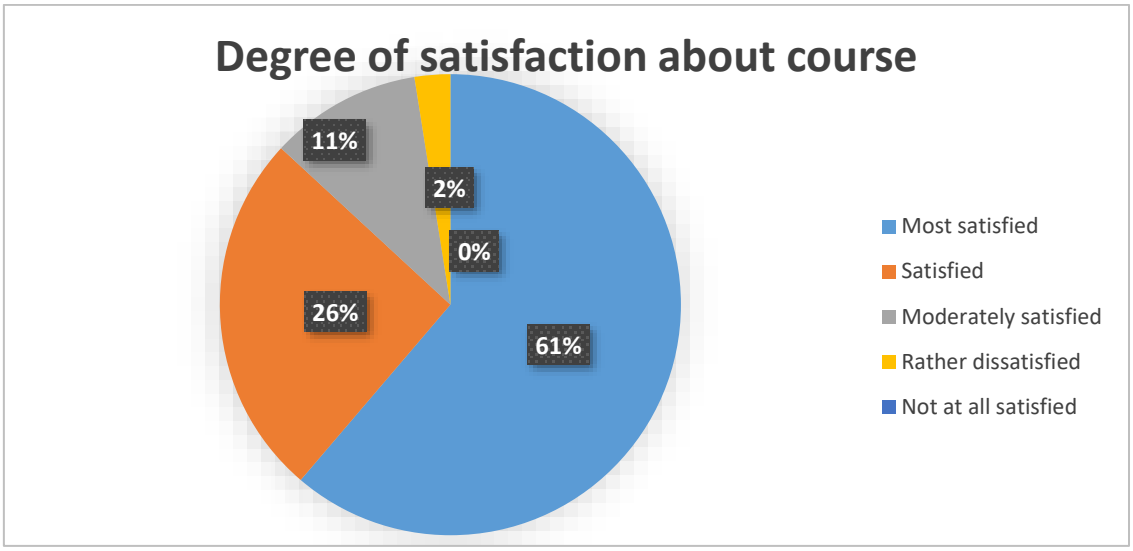

Figure 2.2 Degree of satisfaction about course C2a in Summer School 2023.

Comments provided by students regarding this course, separate for each question:

- By the topic(s) of the training?
  - This is one of my favourite subjects.
  - Opportunity to vast my knowledge.
  - Interesting.
- By the format of the training?
  - It is good.
  - Not enough details.
- By the duration of the training?
  - The course should be a bit shorter.
  - Okay, not too long, nor shorter.
- By the teaching method of the training?
  - Lack of code understanding. In-depth explanation.
  - We had theory and practical. It is a better way to learn.
  - More involvement in uniting with students.
- By the (equipment) resources used and available?
  - More components.
  - We have got all the resources we need. It is perfect.
  - Some of them were faulty.
  - Some pieces were faulty, but we had more available.
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?
  - The material could have been a little more detailed and clearer.
  - The teacher distributed all the knowledge in a way I can understand easily.
  - Okay, nothing big nor insignificant.
- By the availability of additional materials?
  - Further materials could be used.
- By the quality of the writing?

- Main positive points of the training:
  - New learned topics, new topics could be included, like digital logic, analogue, electronics.
  - The interactive of it.
  - I like the topic of the training.
  - Very useful for the feature, opportunity of employment.
  - Got new knowledge of how to work with sensors & actuators. Great opportunity to learn more about the area.
  - Interesting new things.
  - It made me have an idea about the bases of the IoT gadgets that can be used in agriculture and the food industry.
  - I liked that it was a lot of practical exercises and group work.
  - Educational, Interesting, Relevant.
  - New ways of learning that is what more effective.
  - It was very well conducted and vasty to understand.
  - Entertaining format.
  - Captivating.
- Main weaknesses of the training:
  - Lack of in-depth understanding. More days could be assigned for the training.
  - I didn't specify any downsides of this teaching method.
  - Maybe short sessions or more breaks.
  - difficulty in understanding for those without basics in coding.
  - Didn't find any weakness until now.
  - Not the involvement I expected from the teacher.
  - Sometimes the equipment doesn’t work, and you don't know why.
  - Can't think of any.
  - The room is loud because of the AC and I can't hear Lasse well every time.
- Do you consider the training valuable regarding your initial expectations?
  - It is valuable but not in terms of my education. More for interest any general knowledge.
  - Yes, of course. It is an interesting great opportunity to expand my knowledge regarding IoT.
  - Great opportunity for first time users.

2.3 Course C2b - IoT communication – theory and applications

This course took place on 20.07.2023 all day in Room IE303, Faculty of Engineering. For this course 18 students completed the questionnaire, and the centralized response is presented in Table 2.3, where is presented the number of students who checked that option.

Question	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	14	3	1		
By the format of the training?	16	2			
By the duration of the training?	10	4	4		
By the teaching method of the training?	13	5			
By the equipment resources used and available?	14	4			
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	15	2		1	
By the availability of additional materials?	13	5			
By the quality of the writing?	12	6			

Table 2.3. Centralized response for course C2b in Summer School 2023

The indicator of average values obtained by this course is 4.694.

In Figure 2.3 are presented centralized answers in percents for each satisfaction degree for all questions.

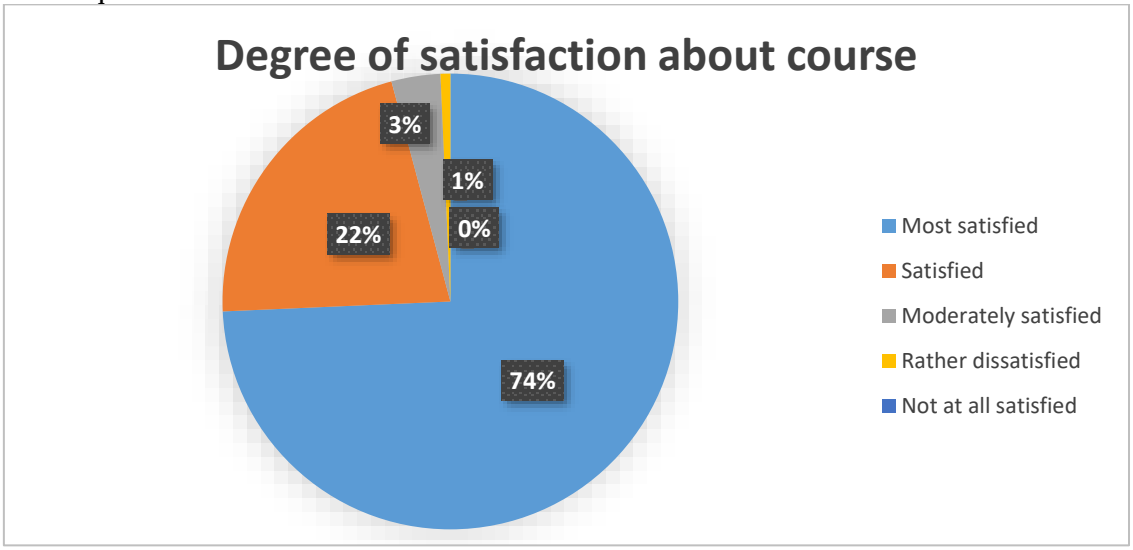

Figure 2.3 Degree of satisfaction about course C2b in Summer School2023.

Comments provided by students regarding this course, separate for each question:

- By the topic(s) of the training?
- By the format of the training?

- By the duration of the training?
  - The days are a little long.
  - This time it felt longer.
- By the teaching method of the training?
- By the (equipment) resources used and available?
  - We received all the equipment what we need to complete tasks.
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?
  - Teachers provide enough knowledge to complete the task.
- By the availability of additional materials?
- By the quality of the writing?

- Main positive points of the training:
  - I found the applicability of the methods presented to be very interesting and I feel the activity was inspired.
  - Received knowledge about IoT communication.
  - The clear example.
  - Knowledge is power.
  - Easy to understand and useful topics. Very easy to grasp.
  - Fun, educational.
  - Interesting.
  - Made me familiar with the sensors that are commonly used in agriculture and food industry.
  - New learning topics.
  - Captivating.
  - Opens new interests.
  - I like the topic.
- Main weaknesses of the training:
  - I precises no weakness to the training experience.
  - No weakness found.
  - A bit tiring.
  - Lack of in-depth understanding.
  - I don't have.
- Do you consider the training valuable regarding your initial expectations?

2.4 Course C2c - IoT cloud integration – theory and applications

This course took place on 21.07.2023 all day in Room IE303, Faculty of Engineering. For this course 18 students completed the questionnaire, and the centralized response is presented in Table 2.4, where is presented the number of students who checked that option.

Question	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	14	3	1		
By the format of the training?	15	2	1		
By the duration of the training?	14	2	2		
By the teaching method of the training?	13	4		1	
By the equipment resources used and available?	13	3	2		
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	15	2	1		
By the availability of additional materials?	14	1	3		
By the quality of the writing?	13	3	1	1	

Table 2.4. Centralized response for course C2c in Summer School 2023

The indicator of average values obtained by this course is 4.667.

In Figure 2.4 are presented centralized answers in percents for each satisfaction degree for all questions.

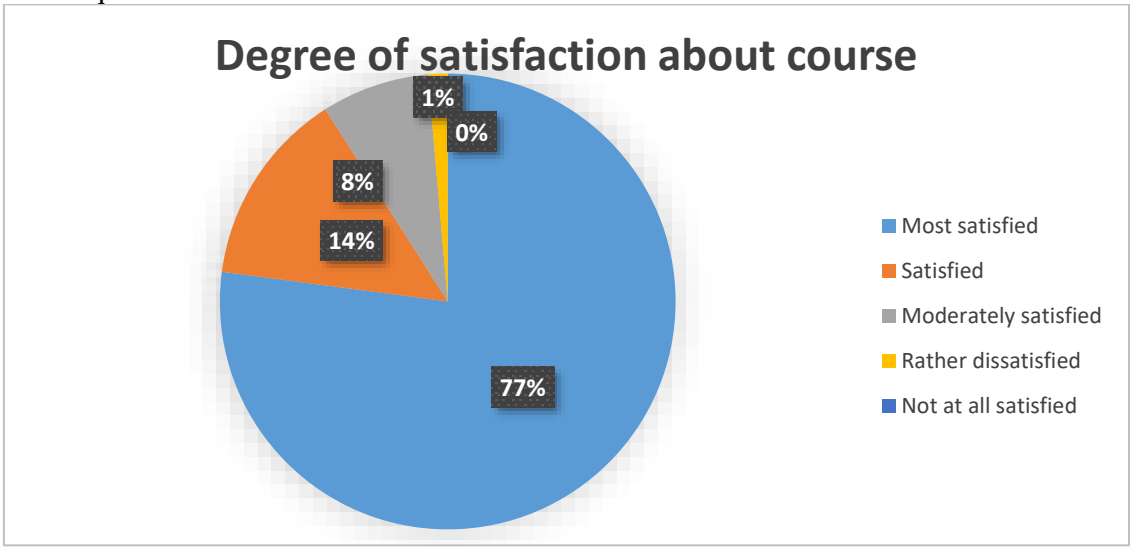

Figure 2.4 Degree of satisfaction about course C2c in Summer School 2023.

Comments provided by students regarding this course, separate for each question:

- By the topic(s) of the training?
- By the format of the training?

- By the duration of the training?
- By the teaching method of the training?
    - Not working examples.
- By the (equipment) resources used and available?
    - We couldn’t get the radio waves to work.
    - Try again in a less “busy” area.
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?
- By the availability of additional materials?
- By the quality of the writing?
    - Examples are not clear.

- Main positive points of the training:
    - New learned topic. An introduction to signal processing would have been nice.
    - Experiencing the practical aspects of this technology and understanding their impact.
    - We got enough knowledge about the topic.
    - New technology.
    - Very easy to understand the topic and how to put the learning things into practice.
    - I like the topics.
    - Every new thing is useful.
    - Very happy that the courses made me interested in IoT.
    - Entertaining.
    - learning practical uses of CS.
- Main weaknesses of the training:
    - Too little, less exercise than before.
    - Not working.
    - The area had too much "background noise" for the radio exercise to be successful.
    - I don't have.
    - Radio don't work.
    - None, own positive exercises.
- Do you consider the training valuable regarding your initial expectations?

2.5 Course C3 - Using AI in fermentation process – theory and applications

This course took place on 24.07.2023 morning in Room B401, Faculty. of Agricultural Sciences, Food Industry and Environmental Protection (ASFIEP) from Lucian Blaga University of Sibiu (ULBS). For this course 20 students completed the questionnaire, and the centralized response is presented in Table 2.5, where is presented the number of students who checked that option.

Question	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	11	6	2	1	
By the format of the training?	11	5	4		
By the duration of the training?	8	3	8	1	
By the teaching method of the training?	11	4	4	1	
By the equipment resources used and available?	12	5	3		
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	13	7			
By the availability of additional materials?	12	6	2		
By the quality of the writing?	11	5	4		

Table 2.5. Centralized response for course C3 in Summer School 2023

The indicator of average values obtained by this course is 4.350.

In Figure 2.5 are presented centralized answers in percents for each satisfaction degree for all questions.

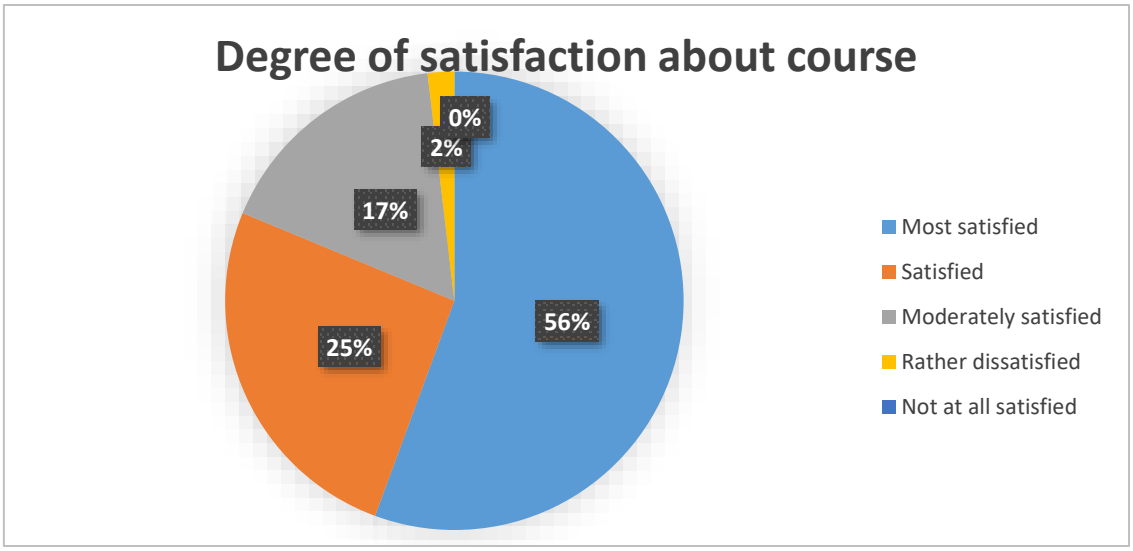

Figure 2.5 Degree of satisfaction about course C3.

Comments provided by students regarding this course, separate for each question:

- By the topic(s) of the training?
  - I love wine fermentation.
- By the format of the training?
  - More practical work
- By the duration of the training?
- By the teaching method of the training?
  - Only read from slides.
  - Alternating theory practice
- By the (equipment) resources used and available?
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?
- By the availability of additional materials?
  - A lot of good references.
- By the quality of the writing?

- Main positive points of the training:
  - Going insight into the practical applications of control structures and their respective best practices.
  - New Learning topics.
  - It was interesting to see how a technological process can be improved with AI.
  - Being able to find out the way that we can make wine in a modern way using IoT; also becoming familiar to food industry appliance.
  - Very useful information.
  - The tool for simulation fermentation is a rather curious to use in this regard.
  - Real world use case.
  - Captivating.
  - I like the topic.
  - Good format.
- Main weaknesses of the training:
  - I didn't identify any weakness.
  - I would like to know more about computer science and how can be implemented, but this is a weakness.
  - In tired.
  - There was too much theory and too little practice.
- Do you consider the training valuable regarding your initial expectations?

2.6 Course C4 - Digital design of food manufacturing processes – theory and applications

This course took place on 27.07.2023 morning, in Room IE303, Faculty of Engineering. For this course 18 students completed the questionnaire, and the centralized response is

presented in Table 2.6, where is presented the number of students who checked that option.

	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	12	5	1		
By the format of the training?	15	1	1		1
By the duration of the training?	12	2	1	3	
By the teaching method of the training?	13	3	1		1
By the equipment resources used and available?	15	2	1		
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	16	2			
By the availability of additional materials?	15	3			
By the quality of the writing?	14	2	2		

Table 2.6. Centralized response for course C4 in Summer School 2023

The indicator of average values obtained by this course is 4.645.

In Figure 2.6 are presented centralized answers in percents for each satisfaction degree for all questions.

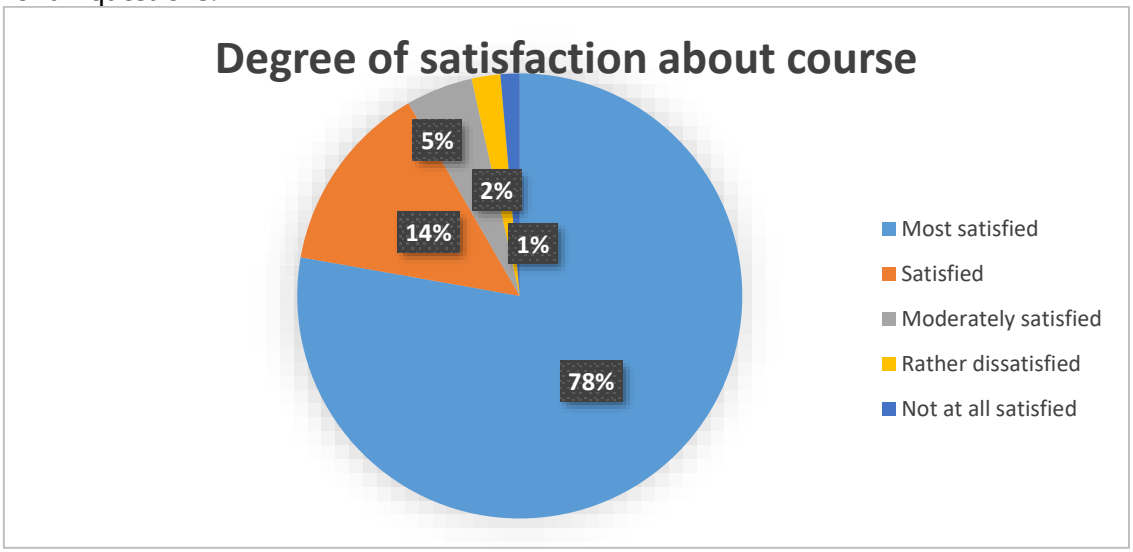

Figure 2.6 Degree of satisfaction about course C4 in Summer School 2023.

Comments provided by students regarding this course, separate for each question:

- By the topic(s) of the training?
- By the format of the training?
    - Boring presentation.
- By the duration of the training?
    - Quite long.
- By the teaching method of the training?
    - Boring.
- By the (equipment) resources used and available?
    - Weird software tool stopped working.
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?
- By the availability of additional materials?
- By the quality of the writing?
    - Not working.

- Main positive points of the training:
    - Experimenting with applicable paradigm for designing models of real-life process.
    - The topic helps me for the project.
    - I enhanced my knowledge about the subject.
    - Very beginner friendly.
    - Make it easy to grasp.
    - Teamwork.
    - Something that I understand and liked it.
    - A new topic, I enjoyed the introduction in which our previous courses were linked.
    - Awesome.
    - Teamwork.
    - Interesting and useful topic.
- Main weaknesses of the training:
    - Nothing, all good.
    - Boring presentation.
    - I think this lecture was only my favourite, so it doesn't have week points.
    - Long.
- Do you consider the training valuable regarding your initial expectations?

2.7 Course C5 - Drones for gathering images and Computer Vision – theory and applications

This course took place on 26.07.2023 all day both in Room IE303, Faculty of Engineering and at ULBS farm located in Rusciori village. For this course 18 students

completed the questionnaire, and the centralized response is presented in Table 2.7, where is presented the number of students who checked that option.

Question	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	15	2		1	
By the format of the training?	12	3	3		
By the duration of the training?	11	4	2	1	
By the teaching method of the training?	11	3	4		
By the equipment resources used and available?	15	3			
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	13	4		1	
By the availability of additional materials?	11	5	2		
By the quality of the writing?	11	3	2	1	1

Table 2.7. Centralized response for course C5 in Summer School 2023

The indicator of average values obtained by this course is 4.520.

In Figure 2.7 are presented centralized answers in percents for each satisfaction degree for all questions.

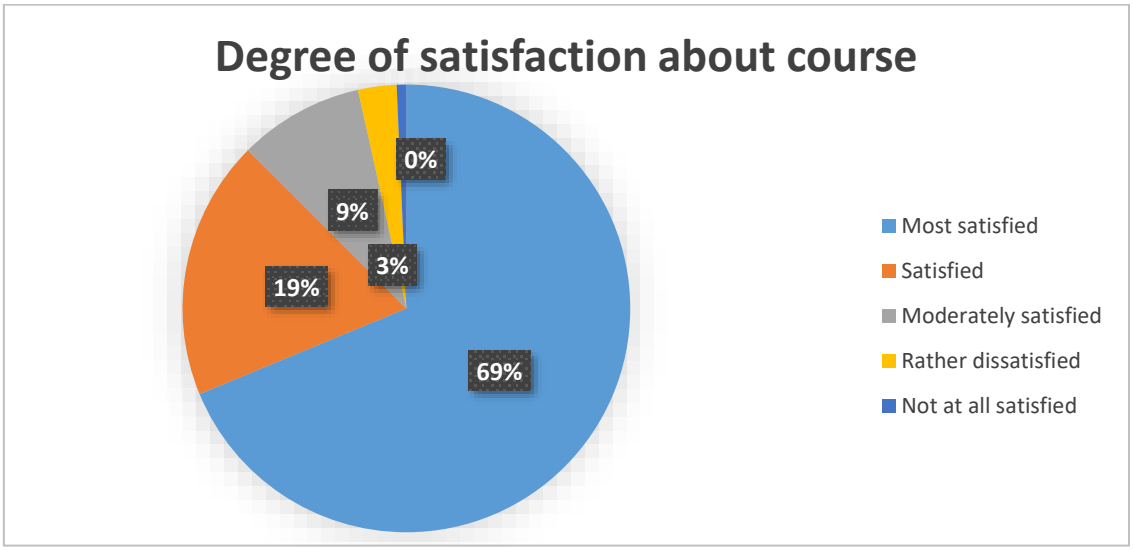

Figure 2.7 Degree of satisfaction about course C5 in Summer School 2023

Comments provided by students regarding this course, separate for each question:

- By the topic(s) of the training?
  - It is a very good topic.
- By the format of the training?
- By the duration of the training?
- By the teaching method of the training?
- By the (equipment) resources used and available?
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?
- By the availability of additional materials?
- By the quality of the writing?
  - No presentation.

- Main positive points of the training:
  - We got very valuable knowledge regarding drone software and usage.
  - New learning topic.
  - Had a chance to learn about Drones.
  - Experimenting with devices of this complexity in real life conditions.
  - Really interesting and fun especially because it was at a farm not in class.
  - I like to drive a drone.
  - Funny drone here.
  - Hand-one drone piloting.
  - Flying drones.
- Main weaknesses of the training:
  - No weakness.
  - Was in a no-fly zone.
- Do you consider the training valuable regarding your initial expectations?

2.8 Course C6 - Assembly lines for picking fruits / vegetables – applications

This course took place on 24.07.2023 afternoon, in Room IE303, Faculty of Engineering. For this course 18 students completed the questionnaire, and the centralized response is presented in Table 2.8, where is presented the number of students who checked that option.

Question	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	14	3	1		
By the format of the	13	3	2		

training?					
By the duration of the training?	11	5	2		
By the teaching method of the training?	11	6	1		
By the equipment resources used and available?	13	3	2		
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	14	2	2		
By the availability of additional materials?	13	4	1		
By the quality of the writing?	11	3	4		

Table 2.8. Centralized response for course C6 in Summer School 2023

The indicator of average values obtained by this course is 4.590.

In Figure 2.8 are presented centralized answers in percents for each satisfaction degree for all questions.

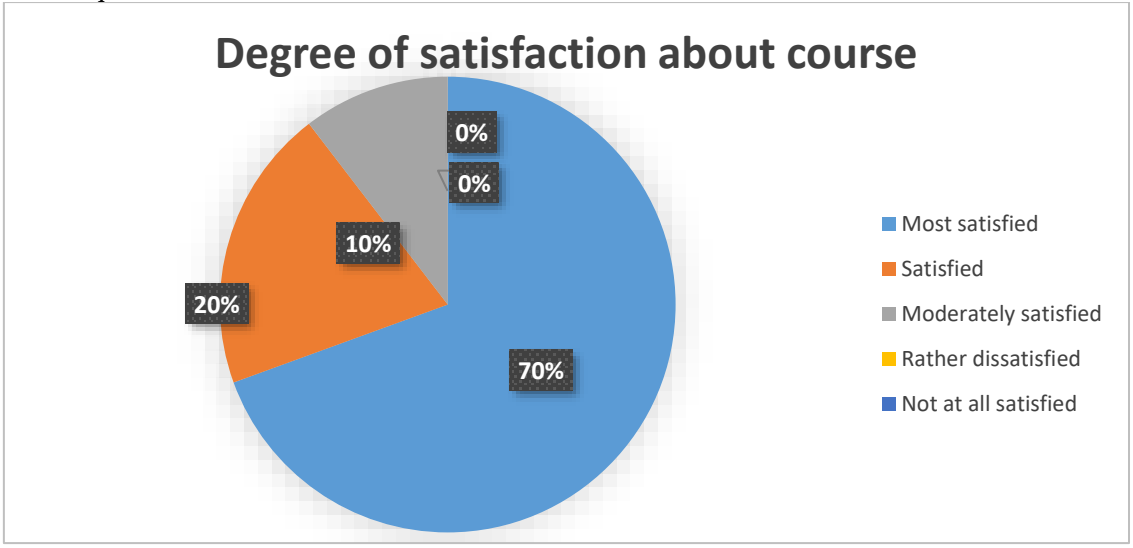

Figure 2.8 Degree of satisfaction about course C6 in Summer School 2023.

Comments provided by students regarding this course, separate for each question:

- By the topic(s) of the training?
  - Yes, I got knowledge.
- By the format of the training?
- By the duration of the training?
- By the teaching method of the training?
- By the (equipment) resources used and available?
  - We got the equipment, and it is a great opportunity.

    - They had a little bit of a connection problem.
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?
    - It has been a better chance to enhance my knowledge.
- By the availability of additional materials?
- By the quality of the writing?

- Main positive points of the training:
    - New learned topic.
    - I got more knowledge about the things I had little knowledge about it.
    - Interesting.
    - Seeing automation tools.
    - Interesting and useful topics.
    - Expanding knowledge in different areas.
    - I liked the topic.
    - The topic was new and exciting.
    - Experience real-life application of programmable systems.
    - The most interesting out of all the other lectures.
- Main weaknesses of the training:
    - Lack of in-depth understanding.
    - I recommended showing the ADOxx script syntax and the robots electrical circuit a bit.
    - I didn't find any weakness in this training.
    - Long days.
    - Too much was in such a short time.
    - The application was difficult.
    - It was after lunch, and we were tired.
- Do you consider the training valuable regarding your initial expectations?

2.9 Course C7 - Develop your own business in agriculture and food industry – theory

This course took place on 27.07.2023 afternoon, in Room IE303, Faculty of Engineering. For this course 18 students completed the questionnaire, and the centralized response is presented in Table 2.9, where is presented the number of students who checked that option.

Question	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	9	6	3		
By the format of the training?	9	7	2		
By the duration of the	7	4	7		

training?					
By the teaching method of the training?	11	3	4		
By the equipment resources used and available?	9	4	5		
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	9	5	4		
By the availability of additional materials?	6	10	2		
By the quality of the writing?	9	6	3		

Table 2.9. Centralized response for course C7 in Summer School 2023

The indicator of average values obtained by this course is 4.270.

In Figure 2.9 are presented centralized answers in percents for each satisfaction degree for all questions.

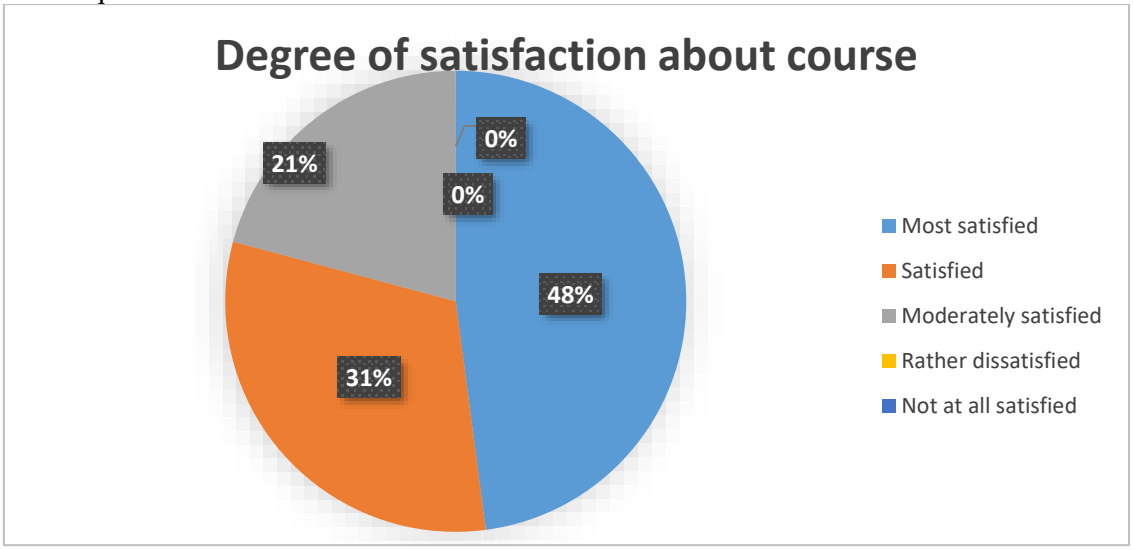

Figure 2.9 Degree of satisfaction about course C7 in Summer School 2023

Comments provided by students regarding this course, separate for each question:

- By the topic(s) of the training?
- By the format of the training?
- By the duration of the training?
- By the teaching method of the training?
- By the (equipment) resources used and available?
    - Have also a device to show.
- By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?

    - Very high relevance in practice.
- By the availability of additional materials?
    - Include more external use cases.
- By the quality of the writing?

- Main positive points of the training:
    - Simulation innovation.
    - Interactive and attractive course.
    - The course was interesting.
    - The course combined theory with a lot of practice.
    - IoT as an accelerator for business.
    - Teaching method.
    - Ideas for business.
    - Learning by doing.
    -
- Main weaknesses of the training:
    - Additional sources.
    - Not enough time.
    - Short time.
    - Duration.
- Do you consider the training valuable regarding your initial expectations?

3 Centralized answers for entire summer school

For the entire summer school, we have 168 completed questionnaires, and the centralized response is presented in Table 3.1, where is presented the number of students who checked that option for all courses.

Question	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	117	37	12	2	0
By the format of the training?	116	37	14	0	1
By the duration of the training?	90	37	35	6	0
By the teaching method of the training?	110	34	20	3	1
By the equipment resources used and available?	115	37	16	0	0
By the relevance of the subject matter(s) and knowledge brought by the teacher regarding summer school topics?	121	35	9	3	0
By the availability of additional materials?	110	45	12	1	0
By the quality of the writing?	110	35	20	2	1

Table 3.1. Centralized response for all courses

In Figure 3.1 are presented centralized answers in percents for each satisfaction degree or all questions.

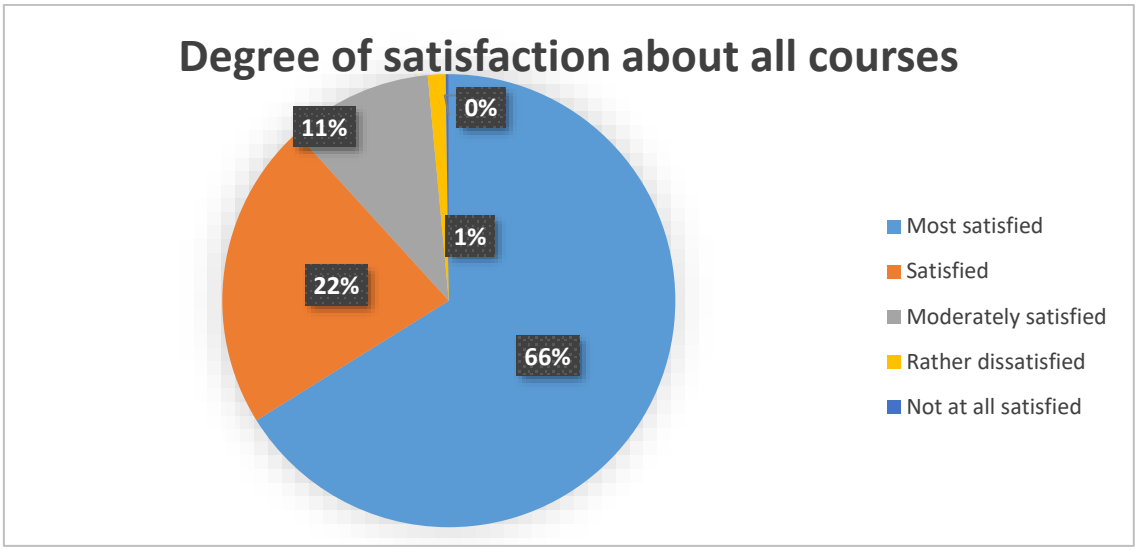

Figure 3.1 Degree of satisfaction about all courses.

In table 3.2 are presented comparative satisfaction degree obtained by all courses for each level of satisfaction separately.

Course	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
C1	65.00%	26.88%	8.13%	0.00%	0.00%
C2a	61.25%	25.63%	10.63%	2.50%	0.00%
C2b	74.31%	21.53%	3.47%	0.69%	0.00%
C2c	77.08%	13.89%	7.64%	1.39%	0.00%
C3	55.63%	25.63%	16.88%	1.88%	0.00%
C4	77.78%	13.89%	4.86%	2.08%	1.39%
C5	68.75%	18.75%	9.03%	2.78%	0.69%
C6	69.44%	20.14%	10.42%	0.00%	0.00%
C7	47.92%	31.25%	20.83%	0.00%	0.00%
Average	**66.35%**	**21.95%**	**10.21%**	**1.26%**	**0.23%**

Table 3.2 Comparative satisfaction degree for all courses

The satisfaction indicator obtained by each course is presented in Table 3.3

Course	Satisfaction indicator
C1	4.569
C2a	4.456
C2b	4.694
C2c	4.667
C3	4.350
C4	4.646
C5	4.521
C6	4.590
C7	4.271
Average over all courses	**4.529**

Table 3.3 The average satisfaction indicator

4 Conclusions

As can be seen, in only 3 questionaries was ticked the option "Not at all satisfied" and 17 questionnaires were ticked the option "Rather dissatisfied", most of the answers 889 (66.15%) ticked the option "Most satisfied" and 297 (20.10%) ticked the option "Satisfied" and 138 (10.27%) ticked the "Moderately satisfied" option.

Looking at the level of satisfaction of the students, we note that the summer school had a good level of satisfaction for the students (4.529 as average satisfaction indicator).

Also, in this report for each course, the criticisms, comments, and suggestions offered by the students were centralized so that they can be considered for improving the presentations.