



**SEM-SEM**



**Smart Control Systems for Energy Management**

Erasmus + #: 561703-EPP-1-2015-1-UK-EPPKA2-CBHE-JP

**Evaluation Report**  
**for the training held on the 13<sup>th</sup> to**  
**15<sup>th</sup> of December 2017 at the**  
**University of Jordan, in Amman,**  
**Jordan**



<b>Project Acronym:</b>	SEM-SEM
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## a. Introduction – Purpose of this Document

As foreseen in the project proposal and, consequently, in the SEM-SEM QA Plan, the QA of the SEM-SEM project will be continuous; thus, will be implemented throughout the project lifetime. Evaluation is necessary to improve the quality of the project and its products. According to the proposal and the Work Package 12 (Quality Plan), EUROTraining is responsible for monitoring the progress of the activities and gathering the results and going on to compose the relevant reports. For this reason, after each and every session (training/workshop/project meeting), a questionnaire should be filled in by all participants.

In the aforementioned framework, this evaluation report aims at outlining the outcomes of the eighth training that was held in Amman on the 13<sup>th</sup> to 15<sup>th</sup> of December 2017. EUROTraining used Google Forms in order to create the questionnaire and easier distribute it to participants. Google Forms is part of Google's online apps suite of tools, it's user – friendly and provided for free.

Before starting the evaluation analysis, it should be noted that due to an unexpected increase in interested participants for the training, organizers chose to alter the predefined schedule of the training, in order for every participant to take part. As a result, at the last minute the trainer was asked to deliver his work in much less time than he was prepared to. Those deviations from the schedule may have caused dissatisfaction among participants, especially regarding the timing and duration of the training. In total, sixty – four responses were collected.

## b. Results' Analysis

This part of the document contains a summary and statistical analysis of the answers given by the training's participants. Graphs are included so that the analysis is easier understandable.

### Question 1: “Name and Surname” (optional)

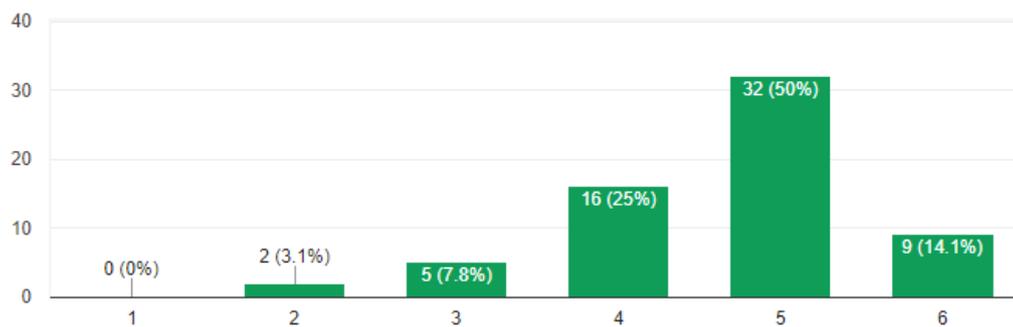
The first question of the evaluation questionnaire was about the name and surname of the respondents. As participants in evaluations tend to prefer to keep their anonymity during the process, this question was not obligatory. Around half of participants, thirty – three out of sixty – four, chose to answer this question.

### Question 2: “Profession/Status” (optional)

The second question was, also, about some personal information of the respondents, namely their profession or status. That kind of information can be very useful for the evaluation, as it would be good to know how participants are related to the project and its objectives. Fifty participants responded to the question, with most of them stating that they were “students”.

### Question 3: “The objectives of the training were clearly defined”

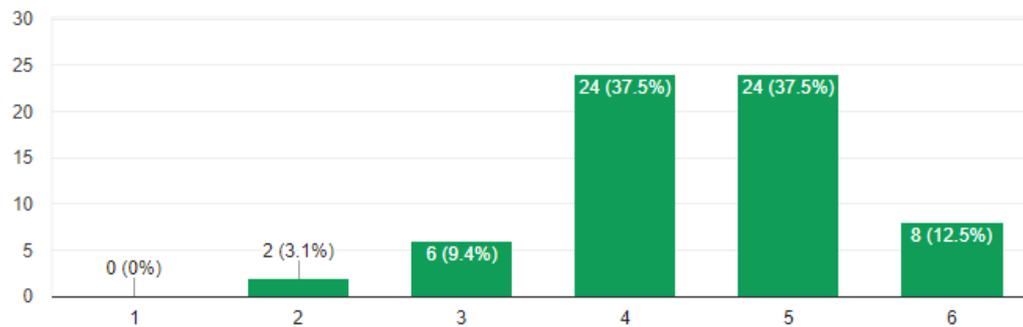
64 responses



In that question, participants were asked to evaluate the clarity of definition of the training’s objectives. Exactly half of them (50%) “agreed” that the objectives were clearly defined, nine out of sixty – four participants (14.1%) “totally agreed”, while sixteen (25%) “rather agreed”. There were also five participants (7.8%) who “rather disagreed” about the clarity of the training’s objectives, and two (3.1%) who “disagreed”. In general, the results are quite positive, as the vast majority of participants was satisfied by that aspect of the training.

Question 4: “Selection and topics were appropriate to my role and responsibilities”

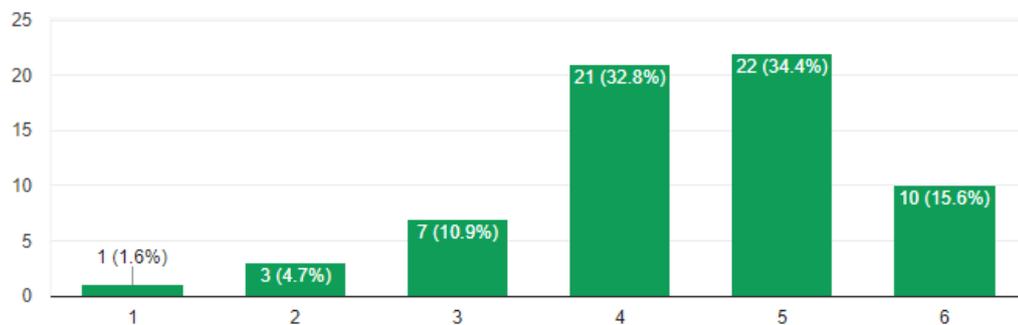
64 responses



Regarding the appropriateness of topics according to participants' roles and responsibilities, results were encouraging too. Forty – eight answers were equally distributed among the options “rather agree” and “agree” (37.5% each), while eight participants “totally agreed” that the topics were appropriate. Six participants (9.4%) “rather disagreed” and another two (3.1%) “disagreed”.

Question 5: “The training improved my understanding of the subject”

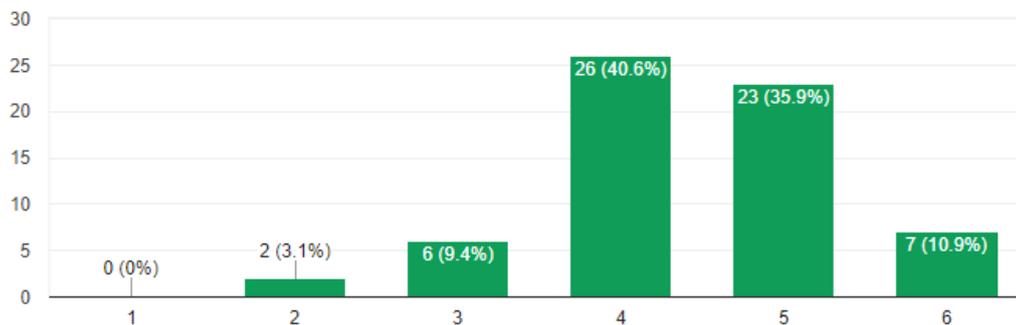
64 responses



As an important function of every training is to provide additional knowledge to participants, this question is important in evaluating the effectiveness of the training. As results indicate, most participants (34.4%) “agreed” that the training improved their understanding of the subject, twenty – one participants (32.8%) “rather agreed”, while ten (15.6%) “totally agreed”. On the other hand, seven participants (10.9%) “rather disagreed”, three (4.7%) “disagreed” and one (1.6%) “totally disagreed” that they had a better understanding of the subject after the training.

### Question 6: “I will be able to apply the knowledge acquired”

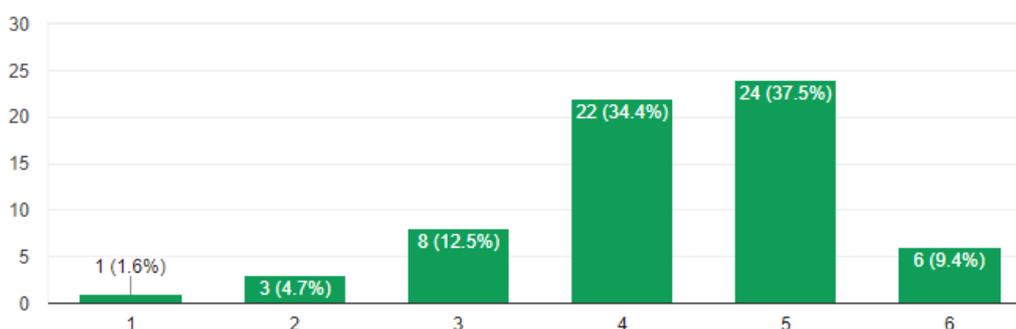
64 responses



Almost equally important with acquiring knowledge is the actual ability to put that knowledge into practice. Regarding the eighth training, twenty – six participants (40.6%) “rather agreed” that they will be able to apply the acquired knowledge, twenty – three (35.9%) “agreed” and seven (10.9%) “totally agreed”. There were also six participants (9.4%) who “rather disagreed” and two (3.1%) who “disagreed” about their ability to apply the knowledge they acquired of the training. Those results can be, in general, considered encouraging as most participants’ views were positive, at different levels, indicating that the training provided them with useful knowledge.

### Question 7: “Visual and supporting material were useful and easy to follow”

64 responses

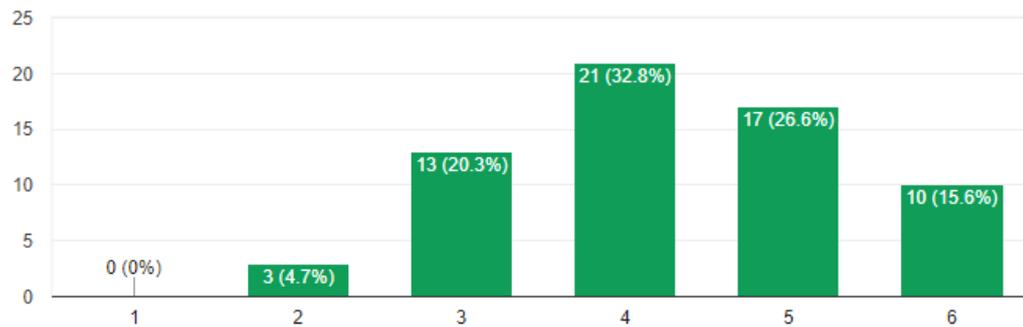


Regarding the visual and supporting material that was used during the training, six out of sixty – four participants (9.4%) “totally agreed” that it was useful and easy to follow, twenty – four (37.5%) “agreed”, and another twenty – two (34.4%) “rather agreed”. However, there were, also, eight participants (12.5%) who “rather disagreed”, three (4.7%) who “disagreed”, and one (1.6%) who

“totally disagreed” about the usefulness and easiness to follow of the visual and supporting material. Those results may signal that more focus should be put on that aspect of the training as it is an important one, especially when dealing with such a big number of participants.

#### Question 8: “Participation and interaction were encouraged”

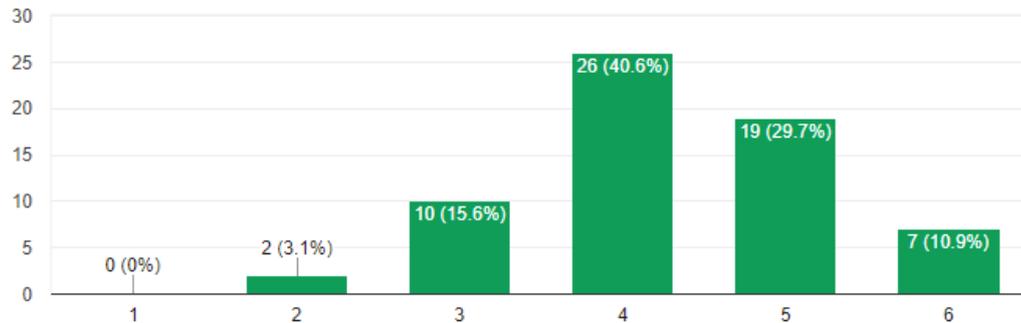
64 responses



In that question, participants were asked to evaluate the level of encouragement in participating and interacting during the training. Ten out of sixty – four participants (15.6%) “totally agreed” that participation and interaction were encouraged, seventeen (26.6%) “agreed”, and twenty – one (32.8%) “rather agreed”. There were, also, thirteen participants (20.3%) who “rather disagreed” and another three (4.7%) who “disagreed” about the encouragement they got to participate and interact during the training. It should be noted that, even though those results are not particularly negative, participation and interaction of participants is getting more difficult as the number of participants increases.

Question 9: “There was a correct balance between theoretical exercises and discussion”

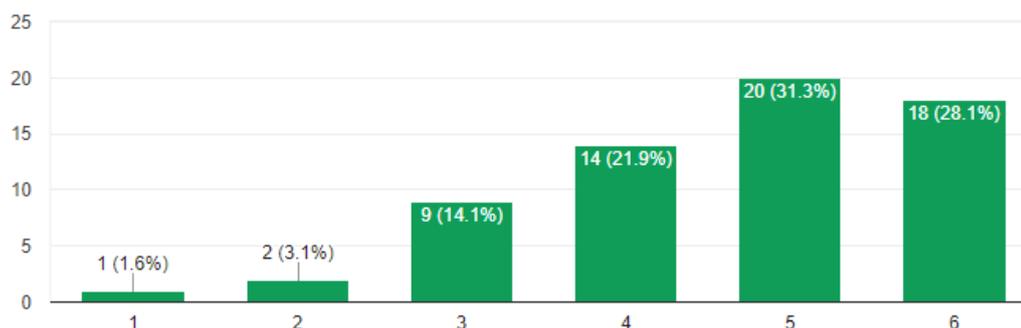
64 responses



Another important aspect of the training is achieving the correct balance between theoretical exercises and discussion. For the eighth training, twenty – six participants (40.6%) “rather agreed” that the balance between theory and discussion was correct, nineteen participants (29.7%) “agreed”, and seven (10.9%) “totally agreed”. On the other hand, ten participants (15.6%) “rather disagreed” and another two (3.1%) “disagreed” about the appropriateness of balance between theoretical exercises and discussion. In general, the views of participants indicate that there might be some room for improvements regarding that particular aspect of the training.

Question 10: “The trainer was well prepared”

64 responses

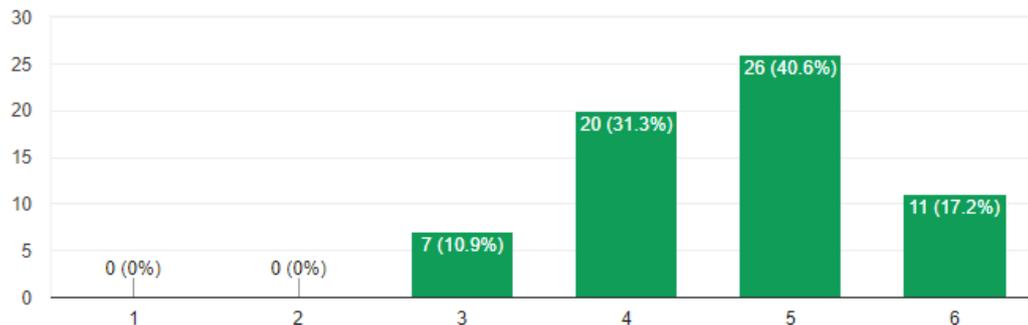


In that question, participants were asked to review the level of preparedness of the trainer. As results show, eighteen out of sixty – four participants (28.1%) “totally agreed” that the trainer was well prepared, twenty (31.3%) “agreed”, and fourteen (21.9%) “rather agreed”. On the contrary, nine participants (14.1%) “rather disagreed” that the trainer was well – prepared, two (3.1%) “disagreed”,

and one (1.6%) “totally disagreed”. Although the original schedule of the training was modified on the last minute as already mentioned, it can be said that the trainer managed to sufficiently deliver the training, satisfying, at least, the expectations of the participants’ majority.

#### Question 11: “The training objectives were met”

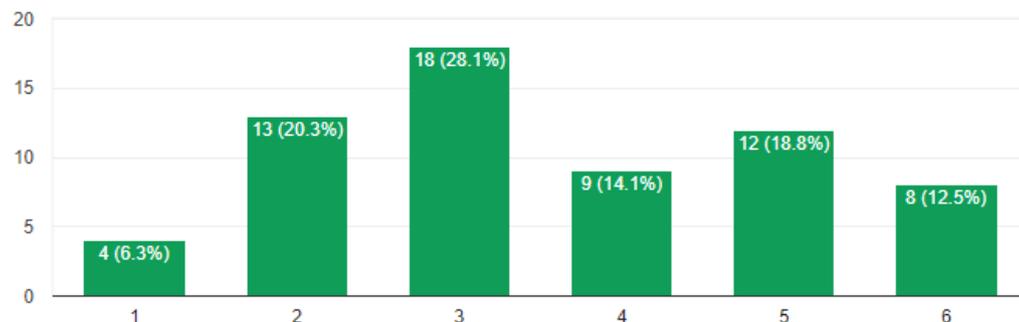
64 responses



Regarding the achievement of the training’s objectives, most participants (40.6%) “agreed” that those were adequately met, while 17.2% of participants “totally agreed” and 31.3% “rather agreed”. There were, also, seven out of sixty – four participants (10.9%) who “rather disagreed” about achieving the training’s objectives. As the accomplishment of the training’s goals can contribute to an overall successful training, it is very encouraging that participants’ opinions on that matter are, in general, positive.

#### Question 12: “How do you rate the duration, date and timing of the training?”

64 responses

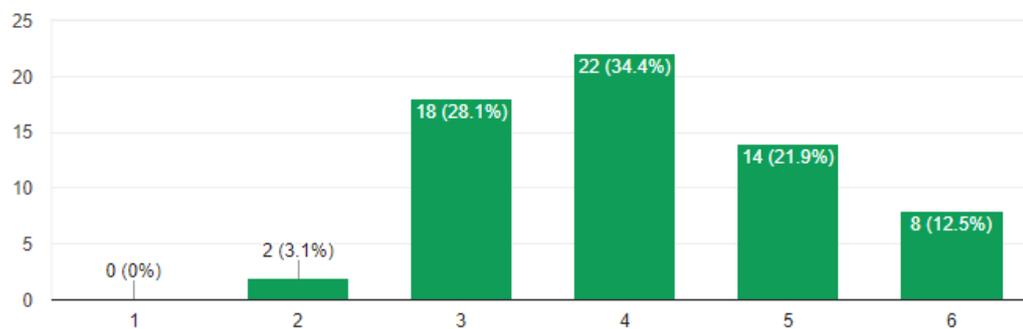


In that question, participants were called to evaluate the training in terms of duration, date, and timing. As the above graph shows, views were distributed among all options, indicating a variety of opinions. More specifically, eight

participants (12.5%) found those aspects of the training “excellent”, twelve (18.8%) “very good”, and nine (14.1%) “good”. On the other hand, eighteen participants (28.1%) thought that the duration, date, and timing of the training were “balanced”, thirteen (20.3%) that they were “poor”, and another four (6.3%) that they were “very poor”. As already mentioned, safe conclusions on time issues of the training cannot be drawn, as the modification of the original schedule highly influenced management and allocation of time.

### Question 13: “Overall evaluation of the training”

64 responses



In that summarizing question participants were asked to evaluate the training in overall. Most participants, twenty – two out of sixty – four (34.4%), found the training “good”, while fourteen participants (21.9%) found it “very good”, and eight (12.5%) “excellent”. Additionally, eighteen participants (28.1%) thought that the training was “balanced”, whereas two (3.1%) that it was “poor”.

### Question 14: “Which topics would you suggest for future training sessions?”

This question was an open – ended question where participants were asked to recommend topics to be included to the next trainings. Only thirteen participants chose to answer, providing valuable feedback though.



13 responses

Energy Auditing
ISO 50001
Quality and concepts of Lean-Green related issues to renewable energy and energy efficiency
Energy Saving Methods How to install solar panels
controlling systems
Electric cars and the effect on powerplants
green building
LEED Certification
BMS
management controllers
Solar Energy
How could we control the coming energy from sun before reaching earth
solar technology

Question 15: Which aspects do you think could be improved for the next training sessions? Any additional comments?

The last question of the evaluation was, also, an optional open – ended question, where participants had the opportunity to suggest any possible improvements for the next trainings or make any additional comment. Only nine participants chose to fill in this question.



9 responses

more technical subjects

- More practical examples, visits to some projects
- Giving workshops about awareness to society as a part of the course by students and make analysis of before and after
- Focusing on the research part for countries as examples regarding these subjects(Socio-economic impacts ) recently
- Try to find a way to help fill the gap between school curriculum that focus on the technical part of new technologies and support the upgrading of them in the ministry of education to make it easier for new generations to be aware about the impacts of transition to renewable energy and energy efficiency.

The used colors in the PowerPoint were not really clear

we need more time to view all of these topics

More time for the Presentation

Be more specific in presentation and to improve the communication skills and interaction with students

Building energy controls

more interaction between lecturer and students is needed

the language should be improved

### c. Final Remarks

The evaluation of the seventh training was conducted through an on – line questionnaire that consisted of fifteen questions: two optional regarding some personal information of the respondents, eleven evaluating questions of linear scale, and two optional, open – ended question for recommendations and additional comments.

As the analysis of the evaluation's results indicates, training can be, in general, characterized as successful, even though minor issues came up. Answers were ranged between all possible options, but most of them were gathered mainly at the options from 3 to 6.

Particularly good was the evaluation regarding the selection of topics, the clarity of objectives' definition, and the achievement of the trainings' objectives. On the contrary, less favorable were opinions about the encouragement of participation and interaction, as well as th duration, date and timing of the meeting. Again, it should be mentioned that before reaching any conclusions, the modification of the original training's schedule should be taken into consideration, as it is more than possible that is has affected participants' level of satisfaction.