
Smart Grid Technology – A Master Program [SGT-MAP]

WP4- Development of accreditation self-study reports for specific professional training courses

4.1 Development of the self-study reports of the professional training courses to be accredited

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4.1 Development of the self-study reports of the professional training courses to be accredited

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1 Introduction

In order to ensure the sustainability of the project through self-financing, a number of professional training courses are to be offered by the EG consortium universities. Candidates to attend these courses are engineers in the field of energy production and management in governmental and private sector organizations. The courses offered will be coordinated and accredited by Egyptian Engineers Syndicate and the Egyptian Ministry of Electricity and Renewable Energy.

2 Objectives of the Deliverable

Among the developed program courses, four courses are selected for professional accreditation by specific training accreditation board. This requires preparing and submission of the related training self-study report to accreditation boards.

3 Methodology

The following strategy is applied to select the training courses. First, a pre-selection of 4 candidate courses is performed by the consortium members. Second, the set of selected candidate courses enter a second round of selection. In this round, the different stakeholders are included in the questionnaire. Based on the second round analysis, the four courses will be identified to undergo the accreditation process. The first round of surveys was conducted using Google Forms (<https://goo.gl/forms/7RWpPINxZOARX1RG3>).

4 Results

The following courses have been selected to be the training courses to offer. These were selected by 70% to 50% of the respondents. Results of the Surveys are given in the Annex.

SGT 703 Introduction to Smart Grid, SGT 710 Renewable and Distributed Generation, SGT 712 Energy and Distribution Management Systems, SGT 719 Power Control in Smart Grid, and SGT 727 ICT Infrastructure in Smart Grid.

5 Conclusions

Four training courses have been selected to be offered by the 4 EG partner universities. The accreditation process through the Egyptian Engineers Syndicate is to pursue.



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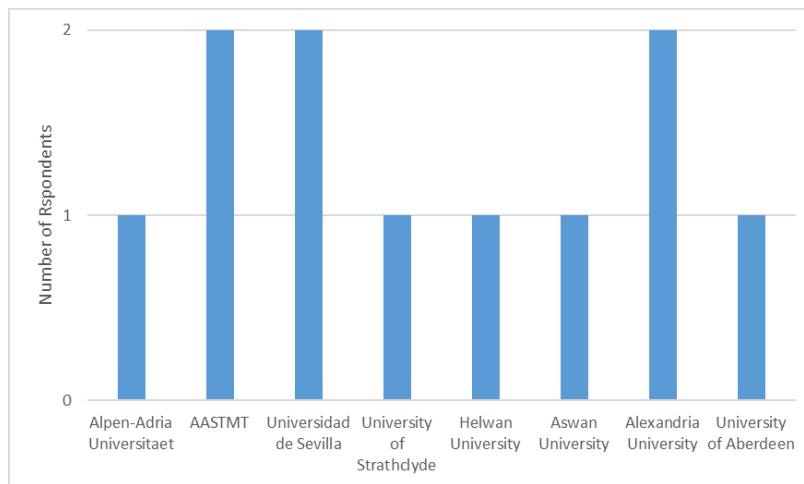
6 Annexes

- I Responses to the First Questionnaire about Training Courses
- II Responses to the Second Questionnaire about Training Courses
- III Second Questionnaire Form about Training Courses

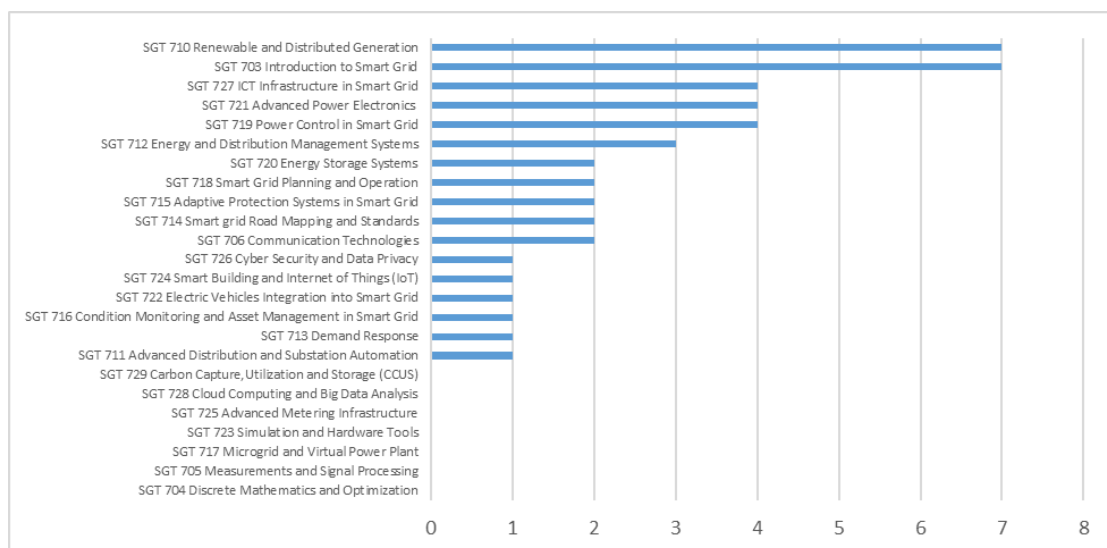


Annex I: Responses to the First Questionnaire about Training Courses

The number of respondents were 11 representing all partners as indicated in the diagram below.



The selected courses arranged by the frequency of their selection are as follows:





Respondents gave the following remarks:

Merge the following courses:

- Introduction to Smart Grid and Renewable and Distributed Generation
- demand Response and advanced meter Infrastructure
- Energy storage systems and Microgrid and virtual power plant
- Demand Response + Advanced metering infrastructure + energy storage and exchanged with Renewable and Distributed Generation course.

The following courses are the candidate for training courses based on the frequency of their selection:

SGT 710 Renewable and Distributed Generation

SGT 703 Introduction to Smart Grid

SGT 727 ICT Infrastructure in Smart Grid

SGT 721 Advanced Power Electronics

SGT 719 Power Control in Smart Grid

SGT 712 Energy and Distribution Management System

SGT 720 Energy Storage Systems

Annex II: Responses to the Second Questionnaire about Training Courses

Res-pondent	Courses																
	703	706	711	714	715	718	720	712	719	721	727	710	713	716	722	724	726
1	2	3	3	4	4	3	3	4	2	1	1	2	2	3	1	2	1
2	5	4	5	3	4	3	3	4	3	3	4	4	4	4	3	4	2
3	5	5	5	5	4	4	5	5	5	5	5	5	5	4	4	5	5
4	5	4	4	5	4	4	3	4	5	5	4	4	3	4	5	5	4
5	5	5	5	5	4	5	5	5	5	5	4	4	4	4	3	3	3
6	4	4	5	2	2	3	3	3	4	/	3	3	4	3	4	3	4
7	3	4	4	5	4	4	3	3	2	3	4	5	5	4	5	2	2
8	5	5	4	4	5	4	4	4	5	5	5	5	4	4	3	4	5
9	5	3	4	5	4	5	5	4	4	5	4	5	4	3	5	3	3
10	5	5	3	3	4	2	2	5	4	3	4	5	5	2	2	2	5
11	na	3	4	2	5	/	/	4	4	3	4	3	4	3	2	3	2
12	5	2	3	5	3	4	3	4	3	2	4	4	3	2	1	2	2
13	4	2	3	4	3	3	3	4	3	3	4	4	2	3	3	3	3
MODE	5	4	4	5	4	4	3	4	5	3	4	4	4	4	3	3	2

Accreditation importance

Code	meaning	Respondent												
		1	2	3	4	5	6	7	8	9	10	11	12	13
1	absolutely important	2		2		2	1	2	2	2	3		2	3
2	important													
3	neutral													
4	not important													

% Increase in Course fees

Code	Respondent												
	1	2	3	4	5	6	7	8	9	10	11	12	13



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Funding		Respondent													
		1	2	3	4	5	6	7	8	9	10	11	12	13	
	1	400	2		4		4	2	2	5	3	3		2	2
	2	300													
	3	200													
	4	100													
	5	50													
1	fully		1		1		2	3	3	3	2	3		3	2
2	partially														
3	no														



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Annex II: Second Questionnaire about Training Courses

Evaluation of the Professional Training Courses in the Field of Smart Grid Technology

Name:

Email:

Organization:

Telephone:

Training Course:	Level of Importance
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Position:

Highest academic degree: B.Sc. MBA MSc PhD other _____

One of the deliverables of the Erasmus plus funded project entitled Smart Grid Technology – A Master Programme (SGT-MAP); Project Reference No: 574219-EPP-1-2016-1-UK-EPPKA2-CBHE-JP is the development and delivery of professional training courses of smart grid technology. The objective is the aiding practitioners in the field in their professional development by focusing on the latest technologies and the impact of these technologies on system design, operation, management and maintenance.

You're requested to indicate the importance of the following courses in the professional development of engineers in the field of smart grid technology. A score of 1 indicates the least importance, while a score of 5 indicates the highest importance.

	NA*	Not imp.				Very important
		1	2	3	4	
SGT 703 Introduction to Smart Grid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 706 Communication Technologies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 711 Advanced Distribution and Substation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 714 Smart grid Road Mapping and Standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 715 Adaptive Protection Systems in Smart Grid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 718 Smart Grid Planning and Operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 720 Energy Storage Systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 712 Energy and Distribution Management Systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 719 Power Control in Smart Grid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 721 Advanced Power Electronics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 727 ICT Infrastructure in Smart Grid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 710 Renewable and Distributed Generation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 713 Demand Response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 716 Condition Monitoring and Asset Management in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 722 Electric Vehicles Integration into Smart Grid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 724 Smart Building and Internet of Things (IoT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SGT 726 Cyber Security and Data Privacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NA*= cannot judge

By which national and international accreditation organization, do you prefer the courses be accredited?

National	International

How important is it to you to have the training course accredited by international organization?

- absolutely important
 important
 neutral
not important

What percentage increase in course fees do you expect for an internationally accredited training course?



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- 400% 300% 200% 100%
50%

Does your organization fund professional training courses for its employees?

- yes, fully yes, partially no

Do you have any further comments or suggestions for training courses?

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