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

WP 1 & Preparation

1.2 Plan the multidiscipline interaction map and subject Area

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28/02/2017



Document Data

Dissemination Level*		
PU	Public	
RE	Restricted to a group specified by the Consortium and the Commission Services	
CO	Confidential, only for members of the Consortium and the Commission Services	X

**Please mark your selected choice with 'X'*

Document Version	0.1
Reviewed by	Name of reviewer(s), Organisation(s)
Review Date	dd/mm/yyyy

Revision History				
Version	Date	Author(s)	Organization(s)	Brief description of change

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1 Introduction

This WP.1 represents the foundation of the SGT-MAP. It will be established within the project partners. A kick-off meeting between all of the project partners will be held at UNIABDN to identify the importance of the SGT-MAP. Participants will provide ideas about the required infrastructure to establish the program. This will include the number of teaching rooms, PCs, laboratories, etc.

Also, participants will discuss the SGT-MAP strategic plan, decide the optimal organizational structure, and the rules to achieve the project objectives. On the basis of aforementioned outputs, UNIABDN will activate the organizational structure and specify the administrative staff in parallel with setting up the required infrastructure.

Participated partners are UNIABDN, UNI-KLU, US, AASTMT, AU, HU, and ASWU.

2 Objectives of the Deliverable

Plan the multidiscipline interaction map and subject area. It is very important to integrate multidisciplinary together in the courses development to enrich the high quality of the materials. This is curial for the success of the program as this will attract more students.

3 Methodology

The UNIABDN is organized the kick off meeting, in Feb. 2017 to discuss the SGT-MAP strategic plan through the team work of the project consortium representatives and multidisciplinary collaboration between universities, enterprises and governmental authorities. Moreover, the courses interaction map is addressed to optimise the course development procedures. This is achieved by face to face meeting (kick off meeting), monthly skype meeting and weekly emails.

4 Results

We succeed to finalize the multidiscipline interaction map as in Annex I.

5 Conclusions

The project multidiscipline interaction map was established.

6 Annexes

Annex I: Multidiscipline interaction map

Courses Interaction map:

SN	Code SGT-	Course Title	Course development	Course review	University	Specialities involvement				
						EEE	ICE	IM	Mech	Chem
1	703	Introduction to Smart Grid	×		UNI-KLU*					
			×		UNIABDN	*	*			
				×	AU					
				×	ASWU					
2	704	Discrete Mathematics & Optimization	×		UNI-KLU		*	*		
				×	AAST					
3	705	Measurement and Signals Processing	×		US	*	*			
				×	AAST					
4	706	Communication Technologies	×		UNI-KLU	*	*			
				×	AAST					



SN	Code SGT-	Course Title	Course development	Course review	University	Specialities involvement				
						EEE	ICE	IM	Mech	Chem
5	710	Renewable & Distributed Generation	×		UNABDN*	*		*	*	*
			×		AU					
				×	HU					
				×	ASWU					
6	711	Advanced distribution & substation automation	×		AAST	*	*			
				×	UNIABDN					
7	712	Energy & distribution management systems	×		AAST	*		*		
				×	US					
8	713	Demand response	×		AU	*	*			
				×	UNIABDN					
	714	Smart grid Road mapping and	×		AAST	*	*			



SN	Code	Course Title	Course development	Course review	University	Specialities involvement				
						EEE	ICE	IM	Mech	Chem
9	SGT-	standards		×	UNIABDN					
				×	US					
10	715	Adaptive protection systems in smart grid	×		HU	*	*			
				×	US					
11	716	Asset performance optimization and conditioning	×		AAST	*	*	*	*	
				×	UNI-KLU					
12	717	Microgrid and Virtual Power Plant	×		HU			*	*	
			×		US*	*		*	*	
				×	AU					
13	718	Smart Grid planning and Operation	×		AU	*	*	*	*	
				×	UNIABDN					
	719	Power Control in smart grid	×		ASWU	*	*			



SN	Code	Course Title	Course development	Course review	University	Specialities involvement				
						EEE	ICE	IM	Mech	Chem
14	SGT-		×		US*					
				×	HU					
15	720	Energy storage systems	×		UNIABDN	■		■	■	■
				×	AAS					
16	721	Advanced power electronics applications	×		ASWU*					
			×		US	■	■			
				×	UNIABDN					
				×	AU					
17	722	Electric vehicles Integration in smart grid	×		AAS*	■	■			
			×		ASWU			■		
				×	US					



SN	Code SGT-	Course Title	Course development	Course review	University	Specialities involvement				
						EEE	ICE	IM	Mech	Chem
18	723	Simulation and Hardware Tools	×		ASWU	*	■			
				×	US					
19	724	Smart building&IoT	×		UNIABDN*					
			×		UNI-KLU	■	*	■	■	■
				×	ASWU					
				×	HU					
20	725	Advanced infrastructure metering	×		HU	■	*			
				×	UNIABDN					
21	726	Cyber security and data privacy	×		AAST	■	*			
				×	UNI-KLU					
22	727	ICT infrastructure in smart grid	×		AAST	■				



SN	Code SGT-	Course Title	Course development	Course review	University	Specialities involvement				
						EEE	ICE	IM	Mech	Chem
			×		AU*		✖			
				×	UNI-KLU					
23	728	Cloud Computing and Big Data Analysis	×		AAST	☑	✖	☑		
				×	UNI-KLU					
24	729	Carbon capture and sequestration	×		UNIABDN			☑	☑	✖
				×	AAST					

*: leading University.