



**ERASMUS+ PROGRAMME**

**Project Number: 573927-EPP-1-2016-1-JO-EPPKA2-CBHE-JP**

**EGREEN:**

**Development of Environmental Engineering Courses and Injection of Climate  
Change Concept for Undergraduate Curriculum**

**Minutes  
of**

**The Fourth Steering Committee Meeting**

**The University of Jordan  
Amman-Jordan**

**April 03 - 05, 2018**



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## EGREEN Fourth Steering Committee

April 03 - 05, 2018

### Participants list:

No.	Participant Name	Position
<b>The University of Jordan (UJ)</b>		
1.	Prof. Ahmed Al-Salaymeh	EGREEN Project Coordinator
2.	Prof. Mohammad Hamdan	Professor at Mechanical Engineering Department
3.	Dr. Osama Ayadi	Assistant Professor at Mechanical Engineering Department
4.	Ms. Hanan Hasan	Research Assistant at School of Engineering
5.	Eng. Leena Marashdeh	Research Assistant at School of Engineering
6.	Mr. Mamoun Dmour	Computer Center
<b>The German-Jordanian University (GJU)</b>		
7.	Prof. Alaaldeen Al-Halhouli	Professor at Engineering School
8.	Dr. Muna Hindiye	Assistant Professor
9.	Eng. Haneen Sa'deh	Research Assistant
<b>Al-Bayt University (AABU)</b>		
10.	Dr. Moayyad Shawaqfeh	Dean of Engineering College
11.	Dr. Amjad Shatanawi	Faculty member
12.	Dr. Mohammad Al-Smairan	Faculty member
<b>Al-Zaytoonah University of Jordan (ZUJ)</b>		
13.	Dr. Loai Dabbour	Assistant Professor
14.	Eng. Eman Abdelhafez	Lecturer in Alternative energy technology department
15.	Dr. Nabeel Abu-Shabaan	Assistant Professor
<b>Mutah University (MUTAH)</b>		

16.	Prof. Omer Maaitah	Dean of the Faculty of Engineering
17.	Prof. Mohammad Almajali	Assistant Professor
<b>Jordan University of Science and Technology (JUST)</b>		
18.	Prof. Suhil Kiwan	Professor at Mechanical Engineering Department
19.	Prof. Fahmi Abu-Rub	Professor at Chemical Engineering Department
<b>Al-Baath University (ABU)</b>		
20.	Prof. Adnan Ghata	Professor at Chemical Engineering Department
21.	Prof. Ahmed Almahmoud	Professor
22.	Prof. Hassan Abbas	Professor
23.	Prof. Chehada Moussa	Professor
24.	Prof. Abd Alnaser Alaarag	Professor
<b>Tishreen University (TU)</b>		
25.	Prof. Moussa Al Samara	The Dean of the higher Institute for Environmental Research
26.	Dr. Bushra Nema	Faculty Member
27.	Dr. Amala Dayoub	Faculty Member
28.	Ms. Julia AlSamara	Research Assistant
<b>Aleppo University (AU)</b>		
29.	Dr.Khalaf AL ABDULLAH	Professor in Electrical Engineering Department
30.	Dr. Taha JABBAN	Faculty Member
31.	Dr. Hamoud Tannar	Faculty Member
<b>Hamburg University of Technology (TUHH)</b>		
32.	Prof. Martin Kaltschmitt	Professor and Head of the Institute for Environmental Technology and Energy industry
33.	Mr. Marvin Scherzinger	Research Assistant
<b>Hochschule Ostwestfalen-Lippe (OWL-UAS)</b>		
34.	Prof. Salman Ajib	Head of the department renewable energies & decentralized energy supplying



## Briefing

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The fourth management meeting was conducted during the sixth global Energy conference (GCREEDER 2018).

The partners attended the opening ceremony of the conference which was conducted under the patronage of HRH prince Hamzah bin Al-Hussein. Distinguished guests such as the Minister of Energy and Mineral Resources and the Minister of Higher Education and Scientific Research were invited to the opening ceremony and delivered speeches about energy and academic research status in Jordan.

EGREEN partners participated in the dissemination activities of EGREEN project during the conference. A dissemination lecture about EGREEN project were delivered by Prof. Ahmed Al-Salaymeh, EGREEN General Coordinator to the conference attendees and partners.

A booth for EGREEN project with rollup and brochures was in the conference exhibition hall of the conference.

The partners presented research papers under the name of EGREEN Project.

### Day 1

**Tuesday, April 03, 2018**

The management meeting started with a welcome speech and a presentation about the progress in EGREEN project delivered by **Prof. Ahmed Al-Salaymeh, Egreen Project General Coordinator**. Then, presentations about the progress of each work package were delivered by the partners as following.

**Session (1): WP3**  
**Chaired by Prof. Martin Kaltschmitt (TUHH)**

**WP3: Development of Study Plan and Curricula**

Title	Major Activities	Coordination			Estimated Start\END Date	
		Coordinator	Co-Coordinator	Other partners involved		
<b>WP3: Development of Study Plan and Curricula</b>	<b>Task 3.1:</b> Workshop on Curricula Updating	HS-OWL	ZUJ, MUTAH,TU	All	1/9/2017	1.8.2017 To 1/4/2018
	<b>Task 3.2:</b> Selection of Pilot Courses and Labs				1/11/2017	
	<b>Task 3.3:</b> Detailed Design of Pilot Courses				1/2/2018	
	<b>Task 3.4:</b> Accreditation of New Curricula				1/6/2018	
	<b>Task 3.5:</b> New Curricula for environment Courses				15/9/2018	
	<b>Task 3.6:</b> Establishment of Environmental lab				15/4/2018	
	<b>Task 3.7:</b> Monitoring and Feedback Methodology and Reports				1/10/2018	

**Prof. Salman Ajib, OWL-UAS**, presented the progress, tasks and activities of this work package and the action plan for the implementation. The steps and time frame to prepare the needed teaching material were presented.

The task of selecting the pilot courses was finished and the detailed design of pilot courses is almost finished. The final course outline including the ECTS Component was submitted for all courses. The New Curricula for the different courses are being prepared. The Accreditation of New Curricula is ongoing in partner universities.

Syrian partners acquired the needed equipment of the project and the equipment is being used by students in the different faculties, while the tendering process is ongoing in the partner Jordanian universities.

The progress in this work package is within the timeline of the proposal. The agreed-on tasks are as follow:

No.	Task	Responsibility	Due Date
1.	Internal accreditation of New Curricula	JO Partners SY Partners	July 2018
2.	Establishment of Environmental lab	JO Partners SY Partners	Aug 2018
3.	Intensive workshops on the contents of the developed courses at the EU Universities (train of trainers' workshops)	EU partners	Summer, 2018
4.	Finalization of Preparation of Teaching materials as lecture scripts	Courses committees	September 2018
5.	Courses material translation to Arabic Language	SY Partners	September 2018
6.	Courses piloting (Lectures and practices). Teaching the new courses at the Jordan and Syrian Universities	JO Partners SY Partners	Sep 2018-Aug 2019
7.	Coordinate the assessment and the feedback exercise, which will be carried out to evaluate the learning outcomes of the delivered courses, labs, e-Learning courses and ECTS course.	HS-OWL GJU TUHH	Oct 2018-Aug 2019
8.	Evaluation questionnaires (different stages) will be prepared	HS-OWL GJU TUHH	September 2018
9.	Analyses and Evaluation of the questionnaires. Monitoring and Feedback Methodology and Reports	JO Partners SY Partners	Continuous

**Session (3): WP6, WP2, WP7**  
**Chaired by Prof. Ahmed Al-Salaymeh (UJ)**

## **WP5: Capacity Building**

Title	Major Activities	Coordination			Estimated Start\END Date	
		Coordinator	Co-Coordinator	Other partners involved		
WP5: Capacity Building	<b>Task 5.1:</b> Development a Capacity Building Programme	TUHH	GJU, ABU	All	1/3/2018	1.1.2018 To 1/10/2018
	<b>Task 5.2:</b> Academic Visits to EU Partners				1/7/2018	
	<b>Task 5.3:</b> Students Visits to EU Partners				1/7/2018	
	<b>Task 5.4:</b> Training Workshops in environment in Jordan and Syria				1/10/2018	

**Prof. Martin Kaltschmitt (TUHH)**, presented the tasks and activities of this work package and the action plan for the implementation.

The capacity building plan was elaborated, and the selection criteria was prepared. Also; the proposed agenda for different workshops were presented and discussed.

The partners agreed on the following tasks:

No.	Task	Responsibility	Due Date
1.	The training workshops during summer 2018 will be organized as follow: <ul style="list-style-type: none"> <li>➤ Training in OWL-UAS Sep 10-14, 2018,</li> <li>➤ Training in UCP and P&amp;B, Sep 3-7, 2018</li> <li>➤ Training in TUHH, Aug 27-31, 2018</li> <li>➤ Training in UIBK, Aug 27-31, 2018</li> </ul>	EU JO SY	2018
2.	The training workshops should include training on EGREEN main topics (Environment, Energy, Water, and e-learning) and EGREEN courses development.	EU JO SY	2018
3.	Apply Selection Criteria to visit Europe for faculty members, technical assistants and students.	EU JO SY	2018



4.	Trained staff will be responsible to hold regular multiple effect workshops at their own institutions	Trained persons	2018
5.	Provide the potential list of participants	JO SY	April, 2018

### WP6: Monitoring and Evaluation

Title	Major Activities	Coordination			Estimated Start\END Date	
		Coordinator	Co-Coordinator	Other partners involved		
WP6: Monitoring and Evaluation	<b>Task 6.1:</b> Quality Committee	GJU	TUHH	All	1/2/2017	1.11.2016 To 1/10/2019
	<b>Task 6.2:</b> External Evaluation				1/8/2019	
	<b>Task 6.3:</b> Monitoring and Evaluation Plan				1/9/2019	
	<b>Task 6.4:</b> Mid-Term Evaluation Report				1/4/2018	
	<b>Task 6.5:</b> Final Evaluation Report				1/9/2019	

**Prof. Ala'aldeen Al-Halhouli (GJU)** presented the tasks and progress of this work package and the action plan for the implementation.

The collection of progress reports from partners were discussed to be used in preparing the intermediate reports.

The received external evaluator proposals from potential evaluators were presented and discussed. Negotiations with potential external evaluator to reduce the costs were made, and new revised offers were received.

The Challenges of the project progress was discussed, and the needed actions were suggested.

The partners agreed on the following:



No.	Task	Responsibility	Due Date
1.	Mid-Term Evaluation Report will be prepared according to received progress reports and submitted.	UJ	April, 2018
2.	Select the external evaluator according to the new revised offer and after getting EACEA authorization	UJ GJU	June, 2018
3.	Prepare the progress reports for each workpackage and submit it every six months.	Work packages leaders	Every Six months

## WP2: Scoping and training needs

Title	Major Activities	Coordination			Estimated Start\End Date	
		Coordinator	Co-Coordinator	partners involved		
WP2: Scoping and training needs	<b>Task 2.1:</b> Scoping and Market Needs Analysis	UIBK	TU, AABU	All	1.4.2017	1.1.2017 To 1.7.2017
	<b>Task 2.2:</b> Scoping and Market Needs Analysis				1.5.2017	
	<b>Task 2.3:</b> Planning and Methodologies				1.7.2017	

**Prof. Moussa Al-Samara (TU)** gave a brief about the results of different surveys (Online Complementary questionnaire, Stakeholder, and institution surveys) in order to benefit from these results and recommendations in the following courses workshop.

An online student survey was prepared to be distributed among the partner universities students.

No.	Task	Responsibility	Due Date
1.	The prepared online student survey will be distributed among students. Minimum 20 responses to be collected from each partner university.	JO Partners SY Partners	April 2018
2.	Analysis of the surveys and final report to be elaborated.	UIBK	May 2018

## WP7: Dissemination and Sustainability

Title	Major Activities	Coordination			Estimated Start\END Date	
		Coordinator	Co-Coordinator	Other partners involved		
WP7: Dissemination and Sustainability	<b>Task 7.1:</b> Communication Plan to Disseminate Activities	ABU	ZUJ, P&B	All	1/3/2017	1.11.2016 To 1/10/2019
	<b>Task 7.2:</b> Info- Days "Environments and Climate Change"				1/6/2018	

**Dr. Adnan Ghata, ABU**, presented the dissemination plan, tasks and activities of this work package and the action plan for the implementation. It was agreed that the partners needs to be more active in conducting the events and reporting them

The partners agreed on the following:

No.	Task	Responsibility	Due Date
1.	Next issue of Newsletter	ZUJ UCP	April 15, 2018
2.	Conduct Info-days (open door days-Environment and Climate Change) in each partner university for faculty member and students	JO SY	Once yearly
3.	Circulate the news letter to the mailing lists	JO SY EU	Over project life

**Session (4), WP4, WP8**  
**Chaired by Prof. Moussa Al-Samara (TU)**

**WP4: Development of Online Content and Competencies**

Title	Major Activities	Coordination			Estimated Start\END Date	
		Coordinator	Co-Coordinator	Other partners involved		
WP4: Development of Online Content and Competencies	<b>Task 4.1:</b> Development of e-Learning Environment.	UCP	JUST, AU	All	1/1/2018	1.12.2017 To 1/4/2018
	<b>Task 4.2:</b> Adaptation of e-learning Courses Content into curricula				1/4/2018	
	<b>Task 4.3:</b> Personalization of e-learning.				1/4/2018	

**Mr. Mamoun Dmour (UJ)**, presented the virtual learning environment (Moodle) that were designed and linked to EGREEN official website. He explained the steps of creating an account and using the website.

The two e-learning courses were presented, **Course#6:** Introduction to Environment and Climate Change (**New course**) and **Course#8:** Design of Renewable Energy Systems.

The partners agreed on the following:

No.	Task	Responsibility	Due Date
1.	The selected two e-learning courses will be prepared by the following committee:  <b>Course#6:</b> Introduction to Environment and Climate Change (New course) <b>Committee</b> (Prof. Cardoso, Prof. Kaltschmitt, Prof. Ajib, Prof. Salaymeh, Prof. Samara, and Prof. Ghata)  <b>Course#8:</b> Design of Renewable Energy Systems <b>Committee</b> (Prof. Cardoso, Prof. Khrisat, Prof. Hindyeh, Prof. Samara, and Prof. Ghata)	eLearning courses committees	September, 2018

2.	The learning modalities that will be applied to the two courses : PBL, CBL, and MOODLE.	Courses Committees	April, 2018
3.	Translate the courses to Arabic language	Syrian Partners	September, 2018

**Session (5)**  
**Chaired by Prof. Salman Ajib (OWL-UAS)**

**WP8: Management**

Title	Major Activities	Coordination			Estimated Start\END Date	
		Coordinator	Co-Coordinator	Other partners involved		
WP8: Management	<b>Task 8.1:</b> Scientific committee	UJ	-	All	1/2/2017	15.10.2016 To 14/10/2019
	<b>Task 8.2:</b> Steering Committee				1/2/2017	
	<b>Task 8.3:</b> Operational management				14/10/2019	
	<b>Task 8.4:</b> EGREEN Website				1/4/2017	

**Prof. Ahmed Al-Salaymeh**, General Manager of Egreen Project, thanked the partners for their efforts and collaborations and focused on the intermediate report task and how the partners will cooperate to finalize this task.

The action plan for the management is as follow:

No.	Task	Responsibility	Due Date
3.	All universities have to purchase the equipment	JO SY	Before piloting phase Sep, 2018



4.	European universities have to provide the coordinator with the needed financial statement and copies of supporting documents.	EU	April 2018
5.	Update the website continuously	UJ	Over the project life
6.	Fifth Steering committee meeting will be conducted in Innsbruck University	UIBK UJ	September 3-4, 2018

**Day 2**  
**Wednesday, April 4, 2018**

The partners presented research papers during GREEDER 2018 under the name of EGREEN Project, which promoted the project to different stake holders.

Also; a dissemination lecture about EGREEN project were delivered by Prof. Ahmed Al-Salaymeh, EGREEN General Coordinator to the conference attendees and partners.

**Day 3**  
**Thursday, April 5, 2018**

Meetings with the Syrian partners including the administration and financial issues were conducted.