



**Modernising Undergraduate Renewable Energy Education:
EU Experience for Jordan
MUREE
TEMPUS project number 530332-TEMPUS-1-2012-1-JO-TEMPUS-JPCR
Princess Sumaya University for Technology, Amman, Jordan
4-5 November 2013
Progress Meeting Minutes**

Attendees

1. Abdallah Al-Zoubi, Wejdan Abu-El-Haija, Ayman Fazeh, Majd Batarseh, Yazan Abu Yaghi, Ayman Qamoh, Mohammad Ashi and Ayesh Al-Omari, PSUT, Jordan
2. Ahmad Salaymeh, Mamoun Dmour and Saana Aqad, University of Jordan
3. Suhil Kiwan, Fahmi Abu Al-Rub, and Qais Khasawaneh, JUST, Jordan
4. Ayman Al-Maaitah and Hussien Al-Majali, Mutah University, Jordan
5. Awnai Tradat and Bashar Hammad, Hashemite University, Jordan
6. Jens Palacios Neffke and Ahmad Albalasie, TUB, Germany
7. Salvador Ros, Llanos Tobarra and Mohamed Tawfik, UNED, Spain
8. Katuscia Cipri, Sapienza University of Rome, Italy
9. Alex Phinikarides, University of Cyprus, Cyprus
10. Klaus Krischan, Graz University of Technology, Austria
11. Rafael Jiménez Castañeda and Francisco Javier Iglesias, IGFoton, Spain
12. Mansour Al-Hallaj and Farajallah Al-Hallaj, NETenergy, Jordan

1. The progress meeting attendees were welcomed by Dr. Abdallah Al-Zoubi, Project coordinator, on behalf of Professor Issa Batarseh, the president of Princess Sumaya University for Technology, Dr. Abdallah Al-Zoubi, then gave a brief on the project, reporting the status and progress of each workpackage and deliverable and the necessary steps that must be taken to ensure that each deliverable is completed on time. He also listed previous and upcoming events. Dr. Al-Zoubi also listed the selected courses which are: Photo Voltaic, Renewable Energy Systems, Energy Conversion, DM, Wind Energy, Solar Thermal, in addition to the 2 eLearning courses being designed by Hashemite University (HU). Finally, Dr. Al-Zoubi pointed out that two traditional labs, which will be hosted by PSUT, have been selected. Specifications have been prepared, call for tender initiated, 4 offers received, technical and financial evaluation performed and selection done. Dr. Al-Zoubi then requested approval from the consortium for PSUT to purchase equipment. To do so, a committee was formed to ensure that all steps and procedures of purchase at PSUT have been made with transparency and that they comply with Tempus rules. The committee members selected were Wejdan Abu El-Haija, Katuscia Cipri, Jens Palacios Neffke, Salvador Ros, Klaus Krischan and Bashar Hammad.

The committee later met separately, discussed all aspects of purchase procedure, and finally agreed to send the documents related to traditional labs to TU-Berlin, as quality committee leader, to check, verify and approve by 20 November 2013. It would then be good robust procedure if there is a formal consortium memorandum which notes and approved the way in which PSUT has undertaken the procurement process. That would confirm to the Commission that the Tempus and other important



practice has been observed. The memorandum would ideally be approved and signed by the senior consortium members. A final decision will be made by the quality committee during the upcoming meeting in Cadiz in the period 10-11 December 2013.

The documents related to remote labs equipment were also checked and found satisfactory, so approval for purchasing the remote labs was given and purchase will go ahead.

At the end of his presentation, Dr. Al-Zoubi has also requested cooperation from partners in the following: revision of proposal and workplan, involving more staff members in each partner's university in the project, utilizing website for dissemination, news and events, filling in timesheets, staff conventions and IMR accurately and on time, help in preparing the intermediate report by 15 April 2014, with coordinator visits to 2 EU experienced partners to prepare report being envisaged. He also requested utilizing the "Intranet Area" of the website to fill all details and reports as the official means of communication between partners. Mr. Mamoun Dmour, Jordan University, was invited as the web master to give a brief and explain and show how the intranet works.

2. The following workpackage leaders were invited to give a detailed talk on the progress of the work packages they are leading as shown in the table below:

WP	Title	Partner Institution	Staff Member
1	Scoping and Needs Analysis	JUST	Suhil Kiwan
2	Development of Study Plan and Curricula	Sapienza	Katiuscia Cipri
3	Development of Online Content and Competencies	HU	Awni Tradat
4	Deployment of Remote Labs	UNED	Manuel Castro
5	Capacity Building	UCY	George Georghiou
7	Dissemination and Sustainability	UJ	Ahmad Al-Salaymeh
8	Monitoring and Evaluation	TUB	Jens Palacios

3. Professor Mike Blackmore, the external evaluator of the project, was invited to join the meeting on Skype in the second day of the meeting. He gave a brief about his experience in EU projects and made a number of valuable comments during the course of the meeting. He also presented issues related to designing a curriculum that will increase the student's entrepreneurship skills, staff skills, planning skills, and team work skills.

4. Concerning the matter of developing the curriculum of the traditional courses and training for academic visits to Europe, it was decided that Jordanian partners will provide EU partners with the initial study plan and content of the six selected courses as agreed upon during the Graz, Austria meeting in April 2013. Then the European partners will review the content, comment and make suggestions to improve and develop the content in final form. They will also have to add their contribution to the content, and the courses should be finalized by 15 April ²⁰¹⁴. This deadline was set in order to have enough time to begin teaching the courses at Jordanian universities by the beginning of the academic year of 2014/2015. A list of the Jordanian academic staff who will be making the visits has been approved in final form as shown in the table below together with the target course, corresponding host university and dates.

	Course	Institutions	Staff Members	Period
1	Photo Voltaic	UCY/HU	Ahmed Al-Salaymeh	13-18 January 2014



			AymanFaza Qias Khasawneh Ayman Al-Maaitah	
2	Renewable Energy Systems	Sapienza/HU	Osama Ayyadi AymanQamo Handri Ammary	2-8 February 2014
3	Energy Conversion	Sapienza/UJ	Ali Badran	2-8 February 2014
4	Solar-thermal energy	TUB/Mutah	Ahmad Sakhrieh Muntaser Hader	15-21 June 2014
5	Wind energy	TUB/JUST	Mohammad Hamdan Suhil Kiwan MajdBatarseh Ayman Al-Maaitah	15-21 June 2014
6	Drive and Machines	Graz/PSUT	Issa Batarseh Wejdan Abu-Elhaija Ibrahim Ghareeb Husain Al-Majali	2-8 February 2014

5. Dr. Abdullah Al Zoubi then presented the consortium with the upcoming events to enable each partner to plan ahead particularly for nominating participants to go to Europe specifically in the light of visa procedures that have become a major issue in running TEMPUS projects. Upcoming events for the second year venues and expected (agreed) dates are listed below:

DEV	Event	Venue	Date
6.1	Entrepreneurial Scoping	IGFoton	10-13 December 2013
8.1	Quality Committee	IGFoton	10-13 December 2013
7.1	Dissemination Committee	TUB	TBD
8.1	Quality Committee	MUTAH	Cancel
5.2	Establishment of Training Centre	Sapienza	TBD
5.3	Academic Visits to EU Partners	EU	January-June 2014
4.2	Services Adaptation to VLE	UNED	TBD
5.4	Trainees Visits to EU Partners	EU	April-May 2014
3.1	Development of VLE	HU	TBD
4.3	Integration of Remote Labs	UNED	TBD
9.3	Scientific Committee	UCY	June 2014
9.4	Steering Committee	JUST	May 2014
5.5	Training Workshops in Jordan	UoJ	TBD
7.5	Events and Networking	UoJ	TBD
7.1	Dissemination Committee		
6.2	Spin-Off	MUTAH	October 2014