



**Project Title:** Modernising Undergraduate Renewable Energy Education: EU Experience for Jordan

**Acronym:** MUREE

**Project Number:** 530332-TEMPUS-1-2012-1-JO-TEMPUS-JPCR

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**Project Website:** <http://MUREE.psut.edu.jo/Home.aspx>

<b>Deliverable Title</b>	<i>Events and Networking</i>		
<b>Author(s)</b>	<i>Abdallah Al-Zoubi and Ahmed Al-Salaymeh</i>		
<b>Organisation Name(s)</b>	PSUT and UoJ		
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<b>Total Number of Pages</b>	7		

Two networking events will be organized at UoJ to amplify the benefits from joining such an association. The first event was specially organized on 24/12/2014, while the other was held during the final dissemination conference. The first information day was specially designed to coincide with the occasion of “Graduation Project Day” at the Engineering Faculty. Various stakeholders were invited including entities from public administrations, ministries, research centres, and companies in the renewable energy field. Various activities were conducted in order to disseminate MUREE project. The agenda was as follows:

#### Wednesday, December 24, 2014

8 : 3 - 9 : 0 0	Registration
09 : 00 - 10 : 10	Opening Ceremony (Sa’ed AlMufti Auditorium)
9 : 00 – 09 : 10	<ul style="list-style-type: none"> <li>Welcome Note by the Mechanical Engineering Department, Dr. Ahmad Sakhrieh</li> <li>Welcome Note by the Dean of Faculty of Engineering and Technology, Prof. Nazzal Al-Armouti</li> </ul>
09 : 10 – 09 : 30	<ul style="list-style-type: none"> <li>“Modernizing Undergraduate Modernizing Undergraduate Renewable Energy Education” Prof. Abdullah Al-Zoubi</li> <li>Sustainable Mediterranean Old Town (SMOT Project), Dr.</li> </ul>

	Ahmed Sakhrieh • National and International Networks for Bridging Academia with Enterprises. Lessons Learnt from Tempus and ENPI projects in Jordan, Prof. Ahmed Al-Salaymeh	
09:30 – 10:10	• Keynote Speech, Latest Updates and Innovations in Mechanical Engineering, Prof. Ali Nayfeh	
10:10 – 10:30	Coffee Break	
10:30 – 12:30	Final Year Graduation Projects for Mechanical Engineering Department	
	(Middle Auditorium) Design Projects	(Sa'ed AlMufti Auditorium) Thermal Projects
12:30 – 1:30	Poster Evaluation Session (Lobby)	
1:30 – 2:00	Meeting With Stakeholders (Faculty Deanship Hall)	
2:00 – 3:00	Lunch	

(Sa'ed AlMufti Auditorium)

Thermal Projects

1. CSP-Linear Fresnel lenses
2. Maintenance and operation of an electric internal combustion unit  
Renewable energy systems and energy and efficiency measures in housing buildings in Jordan
3. Development of a linear Fresnel reflector
4. Design of mechanical systems
5. Design of mechanical systems I
6. Design of mechanical systems of a hotel
7. Design of mechanical systems of commercial buildings
8. Factory heat recovery
9. Performance assessment of a solar cooling system
10. Optimization of HHO gas flow rate as supplementary fuel in (CI)
11. Relative performance of gasoline vehicle with and without turbocharger
12. Design of HVAC system for an airport

**(Middle Auditorium)**

**Design Projects**

1. Planar parallel robot
2. Design and modeling of an automobile regenerative braking system
3. Design and vibration analysis of signs
4. Machinery faults diagnosis (Part I)
5. Machinery faults diagnosis (Part II)
6. Sound masking using white noise
7. Design and modeling of a cantilever-based sensor

- 130 official Invitation letters were sent to related stakeholders through official channels as shown below:

عطوفة رئيس الجمعية الأردنية لحماية الأرض والإنسان المحترم

تحية طيبة، وبعد،

فأرجو إعلامكم بأن الجامعة الأردنية - ممثلة بكلية الهندسة والتكنولوجيا فيها- قد قامت باستحداث برامج متعددة منها:

١. مشروع ماجستير تكنولوجيا البيئة والتغيرات المناخية (MAPEC).
٢. مشروع تطوير المناهج الدراسية في الطاقة المتجددة لطلبة البكالوريوس (MUREE).
٣. مشروع ماجستير الطاقة المتجددة (MANSUR).
٤. مشروع تطوير المناهج الدراسية في التغيرات المناخية (CLIMASP).

المدعومة من الاتحاد الأوروبي ضمن مشاريع تيمبوس التي تهدف لتطوير التعليم العالي، وذلك بالتعاون مع الجامعات الأوروبية، بالإضافة إلى الجامعات المحلية.

وإنطلاقاً من تطوير العلاقة بين المؤسسات الأكاديمية والقطاعين العام والخاص، الذي يعد من ركائز هذه البرامج، يقوم قسم الهندسة الميكانيكية في كلية الهندسة والتكنولوجيا بالجامعة، بعقد يوم علمي خاص بالمشاريع المذكورة أعلاه ومشاريع تخرج الطلبة، وذلك يوم الأربعاء الموافق ٢٠١٤/١٢/٢٤، وبرعاية من الأستاذ الدكتور عميد كلية الهندسة والتكنولوجيا.

ونظراً لجهودكم الملموسة في قطاعات البيئة والطاقة، وكوتمكم أحد أعضاء شبكة التواصل في البرامج آتفة الذكر، أرجو التكرم بالموافقة على تسمية من ترونه مناسباً لحضور هذه الفعالية، والتي ستقام في مدرج سعيد المفتي/كلية الهندسة والتكنولوجيا بالجامعة الأردنية.

شاكرين لكم اهتمامكم بالجامعة الأردنية وتعاونكم معها.

وتفضلوا بقبول فائق الاحترام ...

/رئيس الجامعة  
نائب الرئيس لشؤون الكليات العلمية  
الأستاذ الدكتور عزمي محافظة

للتفكير، يرجى التواصل مع:  
الأستاذ الدكتور أحمد السليمة/مدير المشاريع  
هاتف: (0777844364)  
بريد إلكتروني: (Salameh@ju.edu.jo)  
أو الهندسة أسماء الصمدي/مساعدة إدارية  
هاتف: (0797093123)  
بريد إلكتروني: (asma\_smaili@yahoo.com)

نسخة/إلى د. عميد كلية الهندسة والتكنولوجيا  
نسخة/إلى السيدة مديرة وحدة الإعلام والعلاقات العامة والتلقائية  
نسخة/إلى السيد مدير دائرة الأمن الجامعي

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هاتف: ٥٣٥٥٠٠٠ (٩٦٢-٦) فرعي: ٢١١٢٠ فاكس: ٥٣٥٥٥١١ (٩٦٢-٦) فرعي: ٢١٠٣٥ عمان ١١٩٤٢ الأردن  
Tel.: (962-6) 5355000 Ext.: 21120 Fax: (962-6) 5355511 Ext: 21035 AMMAN 11942 JORDAN  
E-mail: admin@ju.edu.jo  
http://www.ju.edu.jo

Electronic Invitation letters were designed and sent through email to related stakeholders and professors as shown below:



Tempus



Tempus

تتضمن كلية الهندسة والتكنولوجيا في الجامعة الأردنية

ممثلة بالأساتذة الدكتور نزال العرموطي - عميد كلية الهندسة والتكنولوجيا

والأستاذ الدكتور أحمد السلايمة - منسق المشروع في الجامعة الأردنية

بدعم وتمويل من مشروع MUREE

**"Modernizing Undergraduate Renewable Energy Education.  
EU Experience for Jordan"**

والمندوبين من الاتحاد الأوروبي ضمن مشاريع تيمبوس

وذلك يوم الأربعاء الموافق

2014/12/24

في تمام الساعة 9:00 صباحاً

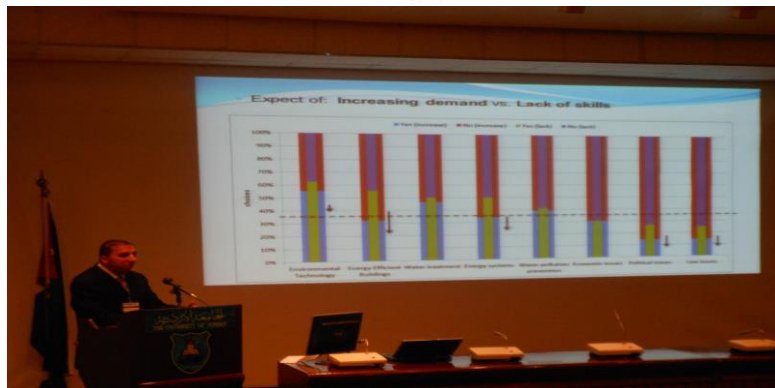
في مدرج سعيد المفتي

كلية الهندسة والتكنولوجيا

الجامعة الأردنية



Professor Al-Salaymeh presented the MUREE project and the importance of the underlying project in supplying the labor market with qualified competencies in the renewable energy sector.



Students graduation projects presentation in renewable energy subjects in the presence MUREE member network.



An info corner for MUREE project to disseminate the project.



Presence of Media.



Distributing MUREE promotional Material.



Meeting related Stakeholder to establish MUREE Network.



News press at The University of Jordan Website.



An extra event was also held for the possible stakeholders on 24/4/2014 at UoJ entitled "ABET workshop on the program Educational Objectives for the Mechanical Engineering Program". Stakeholders gave their feedback about the curriculum of Mechanical Engineering and the MUREE courses were among the list of courses for B.SC students.

The second networking activity will be held during the final dissemination conference on 28 September 2015 and full details will be shown at the conference website at <http://muree.psut.edu.jo/conference/Pages/InfoDay.aspx>

The dissemination committee has also created a network consisting of more than 50 stakeholders each signed a special request form as attached. The form was widely disseminated to all possible stakeholders and feedback was encouraging. Approximately members were 33 from Jordan and 3 from European partners. The types of organisation are universities, companies, authorities, associations and NGO's. The full list of participants in presented below. The network may form the nucleus of a future association that embraces all possible RE stakeholders nationally and internationally.

Institution	Contact Person
Greentech	Saed Essalaimh
Philadelphia Solar	Farah Moghrebi
Jordan Petroleum Refinery	Walid Al-Hawamdeh
Advanced Alternative Energy system	Youwakeem Jamal Habash
Al-Qemmah Company	Karamy Al-Hosbany
Super Solar	Muath Al-Zubi
Al-Masar Engineering Co	Haneen Nidal Amra
Ship's Signals Exploitation Equipment	Abdulaziz Mohammad Salman
Meroun Green Solution	Mohammad Abu -Eisheh
Tameer Company	Abdullah Ahmad Abu Hawash

Super Solar	Dr. Mutaz Al-Muhtaseb
Izzat Marji Group	Razan Batarseh
Jadara Company	Hanan Ahyad
Millennium Energy Industries	Raed Samer Al-Akhraz
National Electric Power Company	Salma Azzam
Quqa Company	Lana Ali Hamdan Al-Qudah
ETA-Max	Randa Al-Baker
Ministry of Planning	Mahmoud Al-Qtarneh
Ministry of Energy and Mineral Resources	Yakob Marar
Ministry of Education	Mousa Mahmoud Jaradat
Ministry of Agriculture	Iman Al-zaben
Ministry of Planning and International Cooperation	Mahmoud Qatarneh
Ministry of Environment	Emad eddin fattouh
Middle East University	Dr. Ammar Alntsheh
Applied Science private	Dr. Yahya Abed
Al-Zaytoonah University	Dr. Malik Ismail Al-Amayreh
Tafila University	Dr. Qais Al-sfasfeh
Jordan Engineers Association	Mahmoud Fararjeh
Jordanian Renewable Energy Society	Mohammad Al-hmore
National Centre for research and Development	Maha Aqra
German Jordan University	Samer Zawaydeh
Electricity Authority of Cyprus	Ioannis Papageorgiou
Environment Commissioner at Cyprus	Ioanna Panayiotou
SED Soluzioni per Energia & Diagnostica at Italy	Alessandro Corsini

A video was also prepared showing several activities of the project and posted at the project's website homepage in order to achieve a stronger impact and an efficient and wide dissemination of MUREE.