**Modernising Undergraduate Renewable Energy Education:**
**EU Experience for Jordan**
**MUREE**
**TEMPUS project number 530332-TEMPUS-1-2012-1-JO-TEMPUS-JPCR**
**University of Cyprus**
**Nicosia, Cyprus**
**13-15 January 2014**
**Academic Visit Agenda**

- Dr George Georghiou, University of Cyprus
- Dr. Ayman Al-Maaitah, Mutah University
- Dr. Ahmed Al-Salaymeh, UoJ
- Dr. Ayman Faza, PSUT
- Dr. Mahmoud Hammad, PSUT
- Dr. Qais Khasawneh, JUST
- Dr. Mohammad Al-Abed, Hashemite University
- Dr. George Georghiou, University of Cyprus
- Dr. George Makrides, University of Cyprus
- Mr Alexander Phinikarides, University of Cyprus
- Mr Minas Patsalides, University of Cyprus
- Mr Marios Tomazou, University of Cyprus
- Mr Michalis Papastaurou, University of Cyprus
- Mrs Nitsa Kindini, University of Cyprus
- Mrs Vaso paraskeua, University of Cyprus
- Mrs Despio Demetroudi, University of Cyprus
- Mr Yiannis Koumparou, University of Cyprus

**January 13, 2014**

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| **09:00 – 11:00** | **Reception of the participants – Dr. George Georghiou**<br>**Onsite tour - PV Technology Laboratory**<br>• Guided tour of outdoor and indoor facility. Outdoor test facility and Indoor facility - George Makrides:<br>• Outdoor PV system test facility - Alexander Phinikarides<br>• Power Quality measurements - Minas Patsalides<br>• PID facility and description - Nitsa Kindini |
| **11:00 – 11:30** | **Coffee Break** |
| **11:30 – 13:00** | **Onsite tour - PV Technology Laboratory**<br>• Indoor PV cell laboratory - Vaso Paraskeva |

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| | • Experimental desalination unit - Marios Tomazou<br>• Net-metering units - Yiannos Koumparou |
| **13:00 – 15:00** | **Lunch** |
| **15:00 – 17:00** | **Presentation/Discussion Session – Jordanian partners**<br>• Need analysis<br>• Existing situation<br>• Format of program of study |
| **January 14, 2014** | |
| **09:00 – 11:00** | **Overview of Teaching activities of PV Technology Laboratory**:<br>• Performance assessment evaluation of different photovoltaic technologies - Dr George Makrides.<br>• Reliable assessment of degradation for different photovoltaic technologies – Mr Alexander Phinikarides<br>• Power quality assessment – Mr Minas Patsalides.<br>• Potential induced degradation assessment of photovoltaic modules – Mrs Nitsa Kindini<br>• Characterisation of cell technologies – Mrs Vaso Paraskeya<br>• PV net-metering – Mr Yiannos Koumparou |
| **11:00 – 11:30** | **Coffee Break** |
| **11:30 – 13:00** | **Course: Renewable Energy Sources: Photovoltaics**<br>• Outline, Syllabus, Curriculum, Lecture notes, slides, Example sheets and Projects - Dr George Georghiou/George Makrides<br>**New Course: Advanced Solar Technologies**<br>• Outline, Syllabus, Curriculum - Dr George Georghiou/George Makrides |
| **13:00 – 15:00** | **Lunch** |
| **15:00 – 17:00** | **General Discussion**<br>• New concepts of PV technology<br>• Initial discussion: Potential PV technology course in Jordan |
| **January 15, 2014** | |
| **09:00 – 11:00** | **Course: Renewable Energy Sources: Photovoltaics**<br>Detailed Theoretical Part - Dr George Georghiou/George Makrides<br>• Chapter 1<br>• Chapter 2<br>• Chapter 3<br>• Chapter 4 |
| **11:00 – 11:30** | **Coffee Break** |

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| **11:30 – 13:00** | **Course: Renewable Energy Sources: Photovoltaics**<br>Detailed Theoretical Part - Dr George Georghiou/George Makrides<br>• Chapter 5<br>• Chapter 6<br>• Chapter 7<br>• Example Sheets / Project |
| **13:00 – 15:00** | **Lunch** |
| **15:00 – 17:00** | **Sightseeing** |
| **January 16, 2014** | |
| **09:00 – 11:00** | **Course: Renewable Energy Sources: Photovoltaics**<br>Detailed Practical Part<br>• Laboratory experiment: Design of a grid-connected PV system – Minas Patsalides<br>• Laboratory experiment: PV system monitoring system – Michalis Papastavrou<br>• Laboratory experiment: Indoor characterisation of PV cells – Minas Patsalides |
| **11:00 – 11:30** | **Coffee Break** |
| **11:30 – 13:00** | **Course: Renewable Energy Sources: Photovoltaics**<br>Detailed Practical Part<br>• Laboratory experiment: Installation of a grid connected PV system – Marios Tomazou<br>• Laboratory experiment: Indoor characterisation of PV modules – Alexander Phinikarides |
| **13:00 – 15:00** | **Lunch** |
| **15:00 – 17:00** | **General Discussion** |
| **January 17, 2014** | |
| **09:00 – 11:00** | **Overview of equipment:**<br>• Equipment necessary for the courses and research on photovoltaic technologies – Dr. George Makrides<br>• Review of PV courses worldwide – Dr. George Makrides |
| **11:00 – 11:30** | **Coffee Break** |
| **11:30 – 13:00** | **General Discussion**<br>**Closing remarks** |
| **13:00 – 15:00** | **Lunch** |