

Mobility Report

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| WP No.: 3 Awareness of EU Educational System |
| Del. No. : 5 |
| Del. Title: Visits of Jordanian Partner Academic staff to EU |
| Name of Staff: |
| Convention Ref. No.: |
| Dates: 16-22/4/2011 |

1. Description of the training course

Please provide a description of the training programme, training modules

- Awareness of DCU educational system including QC processes, Structure of programs at the Masters level, Teaching methodologies, Graduation projects, theses, Assessment of course modules, development of course outcomes and program outcomes, accreditation.
- Awareness of the research performed at DCU and the research interests of faculty members.
- **Knowledge acquired:**
 1. DCU students are required to submit a conference paper for graduation project (Thesis) and take a year finish.
 2. Students have the option to choose their degrees:
 - a. 8 modules+Project=MEng
 - b. 8 modules=Diploma
 - c. 4 modules: Postgrad Certificate
 3. No training for students is required.
 4. Most popular courses: Network Security and Object Oriented Programming, Entrepreneurship for Engineers.
 5. Network security is important for those who work in Networking companies
 6. All courses are reviewed by Engineers Ireland
 7. External examiner checks the marking, the grades and report to the program chair.
 8. Students of the MEng program come from IT companies and also international
 9. course outcomes are mapped to program outcomes and those to Bologna Level9 descriptors.
 10. Course descriptors are prepared by instructors using (coursebuilder.ie) and must be approved by the department board. The board checks if the course outcomes are aligned with program outcomes.
 11. Academic Framework of Innovation (AFI): assist in the delivery of the Learning Innovation element of the Strategic Plan by:
 - placing DCU in the forefront of educational thinking
 - building upon existing strengths
 - enabling interdisciplinary

- rectifying current anomalies
 - fostering flexible approaches to programme development
 - widening student choice - both in terms of curriculum and mode of study
 - supporting retention
12. Kually: an open source software for university management processes: registration, finance, etc.
13. An Information System for QC would consist of:
- a. Module Descriptors using course builder
 - b. Tutor Information
 - c. Performance of students (Traffic light indicators)
14. accreditation process by Engineers Ireland
- It is important to have a program accredited because this means that graduates can become chartered engineers easily and this give them opportunities to work in other countries in EU, Canada and the US because these Engineers Ireland is under the Washington Accord.

15. Activities Conducted

Please describe the activities carried during mobility and how mobility helped and/or will help achieve the project's objectives.

1. Meeting with curriculum development workgroup
2. Meetings with School head
3. Meetings with Program chairs
4. Meeting with faculty members
5. Meeting with Administrative staff at Faculty of Engineering
6. Attending Classes related to our research interests
7. Visiting research centers

8. Obstacles and shortcomings

Please describe any obstacles and/or shortcomings experienced during the period covered by the report and the measures taken by the project team to address them.

Delays in obtaining Visas--- getting letters from host and YU to facilitate visa applications
Classes were not attended by many students (end of semester)—meetings with instructors to discuss process
It was hard for one of the curriculum review workgroup members to attend the curriculum review meeting (Dr. Reig from UPV)--- He joined the meeting through Skype.



9. Planned Activities

Please also indicate the activities you plan to carry out after you attended the training course.

1. Disseminate the knowledge acquired to all faculty members at the Telcom dept.
2. Use the knowledge acquired on curriculum development and outcome based learning in the development of new curriculum and programs
3. Consider the results of the meeting in writing the final report of Del. 1
4. Discuss the possibility of establishing joint research projects with DCU staff
5. Consider accreditation by Engineers Ireland when developing new programs.

10. Any other comment

Please provide in this entry, any relevant information you think might be useful for the assessment of your mobility (i.e. synergies with other projects, any support from external environment, networking with professional bodies, etc.).

11. Overall Evaluation of the training course

| Item | Grade out of 5 |
|--|----------------|
| Training material | 5 |
| Trainer quality | 4 |
| Place of training | 5 |
| Contact person help in coordinating contact with staff members of host | 5 |

12. Attachments

Please submit this report along with all training material at most one week after mobility is conducted.

1. Schedule of visit
2. Acquired data

| | Monday | Tuesday | Wednesday | Thursday |
|---------------------|----------------------|--------------------------------------|--------------------------------------|--|
| 9:00 - 10:00 | Noel Murphy | David Molloy | Derek Molloy | Marissa Condon |
| 10:00-11:00 | Xiaojun Wang | Curriculum Review Meeting | Pascal Landais | EE452 Wireless and Mobile Comms |
| 11:00-12:00 | Noel O'Connor | Curriculum Review Meeting | David Molloy | EE452 Wireless and Mobile Comms |
| 12:00- 13:00 | Gabriel-Miro Muntean | Free for run-on the CR meeting | Gabriel-Miro Muntean (research) | EE452 Wireless and Mobile Comms |
| 13:00- 14:00 | Derek Molloy (Lunch) | Formal Lunch - for 6 at 12:30pm | Lunch | Lunch |
| 14:00-15:00 | Noel O'Connor | EE507 Entrepreneurship for Engineers | EE563 3D Graphics and Visualisation* | EE502 DSP (Signal Modelling & Compression) |
| 15:00-16:00 | Liam Barry | EE507 Entrepreneurship for Engineers | EE563 3D Graphics and Visualisation* | EE502 DSP (Signal Modelling & Compression) |
| 16:00-17:00 | Noel Murphy | Conor Brennan | EE563 3D Graphics and Visualization* | EE502 DSP (Signal Modelling & Compression) |
| Evening | | | Dinner | |

| Monday 17/4/2011 | | |
|-------------------------|----------------------|---|
| 9:00 - 10:00 | Noel Murphy | QC at DCU, how grades are checked by the department, how program outcomes are aligned with Level 9 outcomes set by Bologna guidelines, etc. An approach to measure the performance of exams is to plot student grades vs. their GPA's and then by using linear regression, a straight line is fitted to data. Schedule of meetings with professors. |
| 10:00-11:00 | Xiaojun Wang | Senior lecturer at EE school. Discussion about the MEng program. The program has 4 tracks: Telecom, Network Implementation, Image Processing and Nano Electronics. Students are required to submit a conference paper for graduation project (Thesis) and take a year finish. 8 modules+Project=MEng 8 modules=Diploma 4 modules: Postgrad Certificate No training for students is required. Most popular courses: Network Security and Object Oriented Programming, Entrepreneurship for Engineers. Network security is important for those who work in Networking companies. All courses are reviewed by Engineers Ireland. |
| 11:00-12:00 | Noel O'Connor | Director of Clarity center for image processing and computer vision Teaches a course on Image compression. |
| 12:00- 13:00 | Gabriel-Miro Muntean | MEng. Program Chair. Talked about the external examination process. External examiner must be from outside Ireland. He checks the marking, the grades and report to the program chair. Talked about the difference between MSc and MEng |
| 13:00- 14:00 | Lunch | With Derek Molloy, Pascal and Martin |
| 14:00-15:00 | Noel O'Connor | Teaches image and video compression class. Talked about its importance to telecom: It is important to understand multimedia in order to know how to transmit them. Students of this course come from IT companies and also international. O'Connor runs CLARITY center for image processing and sensor research. Funding of 12 M from government and companies. |
| 15:00-16:00 | Liam Barry | Involved in Optical network. We visited his research lab for Microwave and Optical research. His course is 7.5 ECTS: 40 contact hours: 30 hours lecturing+ 6 hours of lab work +3 tutorial. Evaluation: 25% continuous assessment+75% exam (only one exam) |
| 16:00-17:00 | Noel Murphy | He presented the accreditation process by Engineers Ireland. Explained how course outcomes are mapped to program outcomes and those to Bologna Level9 descriptors. Course descriptors are prepared by instructors using (coursebuilder.ie) and must be approved by the department board. The board checks if the course outcomes are aligned with program outcomes. |
| Evening | | |

| Tuesday 18/4/2011 | | |
|--------------------------|--------------------------------------|---|
| 9:00 - 10:00 | David Molloy | <p>Talked about</p> <p>2. Academic Framework of Innovation (AFI): assist in the delivery of the Learning Innovation element of the Strategic Plan by:</p> <ul style="list-style-type: none"> • placing DCU in the forefront of educational thinking • building upon existing strengths • enabling interdisciplinary • rectifying current anomalies • fostering flexible approaches to programme development • widening student choice - both in terms of curriculum and mode of study • supporting retention <p>3. Kually: an open source software for university management processes: registration, finance, etc.</p> <p>4. An Information System for QC would consist of:</p> <ol style="list-style-type: none"> a. Module Descriptors using course builder b. Tutor Information c. Performance of students (Traffic light indicators) |
| 10:00-11:00 | Curriculum Review Meeting | See MOM |
| 11:00-12:00 | Curriculum Review Meeting | See MOM |
| 12:00- 13:00 | Curriculum Review Meeting | See MOM |
| 13:00- 14:00 | Formal Lunch - for 6 at 12:30pm | Noel, Ling Ma, Conor, Hrishkish, Bassam and Khaled |
| 14:00-15:00 | EE507 Entrepreneurship for Engineers | Steve Daniels: the course is about teaching students the business processes, how to establish and run a company, etc.. Met with one student from Telecom industry. |
| 15:00-16:00 | EE507 Entrepreneurship for Engineers | |
| 16:00-17:00 | Conor Brennan | <p>Talked about MEng program and courses.</p> <p>How students choose their track by selection of courses.</p> <p>Interesting courses:</p> <ul style="list-style-type: none"> • Research practice and methodology • New Enterprise Management |

| Wednesday 19/4/2011 | | |
|----------------------------|--------------------------------------|--|
| 9:00 - 10:00 | Derek Molloy | <ul style="list-style-type: none"> • Teaches Computer graphics course • Students attending the class come from industries like Agilent, Intel, IBM...and also international students. • Interesting module is the ARRDUINO which enables students to build their wireless network. See www.turnitin.com |
| 10:00-11:00 | Pascal Landais | skipped |
| 11:00-12:00 | David Molloy | skipped |
| 12:00- 13:00 | Gabriel-Miro Muntean (research) | <ul style="list-style-type: none"> • Talked about the accreditation process by Engineers Ireland • It is important to have a program accredited because this means that graduates can become chartered engineers easily and this give them opportunities to work in other countries in EU, Canada and the US because these Engineers Ireland is under the Washington Accord. • Talked about possible cooperation in research on computer networks and possible joint projects through FP7 |
| 13:00- 14:00 | Lunch | <ul style="list-style-type: none"> • Met with Dr. Barry McMullin who is the director of the RINCE research center. • The center was established using government money to encourage research. • There is a number of staff whose job is to help other researchers write proposals. • The center contains smaller research centers. |
| 14:00-15:00 | EE563 3D Graphics and Visualization* | |
| 15:00-16:00 | EE563 3D Graphics and Visualization* | |
| 16:00-17:00 | EE563 3D Graphics and Visualization* | |
| Evening | Dinner | <ol style="list-style-type: none"> 1. Talked about possible cooperation on a new Tempus project about developing a National Framework of Qualifications and Academic Framework on Innovation for Jordan. <ul style="list-style-type: none"> • Possible partner from DCU: • Possible partners from Jordan: JEA, MOHE, 2. Possibility of joining the workshop on Bologna Process in DCU in June. |

| Thursday 21/4/2011 | | |
|---------------------------|--|---|
| 9:00 - 10:00 | Marissa Condon | Teaches RF circuit modeling. Talked about joint research in the same field. |
| 10:00-11:00 | EE452 Wireless and Mobile Comms | Skipped, no class |
| 11:00-12:00 | EE452 Wireless and Mobile Comms | Skipped no class |
| 12:00- 13:00 | EE452 Wireless and Mobile Comms | Skipped no class |
| 13:00- 14:00 | Lunch | Talked more with Noel about accreditation. |
| 14:00-15:00 | EE502 DSP (Signal Modelling & Compression) | Marlow The class is about audio and video compression |
| 15:00-16:00 | EE502 DSP (Signal Modelling & Compression) | |
| 16:00-17:00 | EE502 DSP (Signal Modeling & Compression) | |
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