Part I

Overview of the project

Project plan

Activities & Outcomes
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Part 1- Project Plan

Activities of the project & Outcomes

1. Background of the Project

1.1 Need for the project

• Necessity of recognition and accreditation of Engineering Programs (EPs) to unify the standards of the EPs offered in every country.

• Higher Education Institutions (HEI) in the Arab Region are relatively new, some Arab States have established a body concerned with accreditation.

• The Beirut Conference opened a new era of interest in quality assurance among the Higher Education community in the Arab States calling for the establishment of a Regional mechanism for quality assurance and accreditation under the auspices of the Association of the Arab Universities and calling to Member States of the region to establish similar mechanisms at the National level.

• In Lebanon, more than 140,000 students are enrolled in HEIs distributed over 40 private and Public HEIs that are licensed by the Lebanese Council of Ministers.

• Lebanon needs to establish a mechanism for accrediting and evaluating the HEIs. This Lebanese need goes along the same Tempus MEDA National Priorities for Lebanon.

1.2 Accreditation criteria:

Accreditation system must examine single EPs such that it:

• Satisfies standard prerequisites on the contents of the study program.

• Shows the capacity to produce completely qualified students, specifically through the definition of a series of cultural, technical and professional requirements that are projected over the entire work life.

• Provides complete documentation on the means used to achieve the training objectives.

• Ensures that the objectives are achieved.
1.3 Accreditation Board

Accreditation must be done by an Accreditation Board that:

- Approves detailed guidelines and operating procedures for accreditation.
- Oversees all operational arrangements and appoints evaluation panels.
- Receives evaluation reports on EPs and determines whether accreditation should be granted and on what conditions.
- Responds to any complaints concerning the accreditation process and to any proposals for change.
- Oversees the development and operation of accreditation and mutual recognition agreements with other countries.
- Fosters the dissemination of developments and best practices in engineering education.

2. Specific Project Objectives

Main Goal
The Main goal is to put in place an accreditation board for engineering education in Lebanon, namely the “Lebanese Accreditation Board for Engineering Education – LABEE”. This board is based on International Standards and Procedures such as EUR–ACE

This goal can be achieved by understanding the World’s status quo systems of licensing and accreditation of EPs and producing an appropriate legislating accreditation system to be adopted by the Lebanese Ministry of Higher Education.

Main objectives are:
- To establish an organizational structure and bylaws for the proposed LABEE
- To establish a draft of accreditation criteria
- To establish a draft of accreditation procedures
- To train Lebanese accreditation specialists
- To be a consultant to the Lebanese Ministry of HE and the Orders of Engineers for the equivalency of the international Engineering Degrees
- To identify and classify EPs.

3. The Steering Committee (Lebanese Partners)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Haissam ZIADE</td>
<td>Faculty of Engineering - Lebanese University – Project Coordinator</td>
</tr>
<tr>
<td>Dr. Ahmad JAMMAL</td>
<td>Director General of Higher Education - Ministry of Higher Education in Lebanon</td>
</tr>
<tr>
<td>Mr. Abdul-Monhem Alameddine</td>
<td>President – Order of Engineers in North-Lebanon</td>
</tr>
<tr>
<td>represented by Dr Nahed Ghazal</td>
<td></td>
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</tbody>
</table>
Mr. Samir DOUMIT represented by Dr. Charbel El Kfouri
President – Order of Engineers in Beirut

Dr. Amer HELWANI
Consultant to the Minister of Higher Education – Lebanon

Dr. Mohamad KHALDI
Faculty of Engineering - University of Balamand – Lebanon

Dr. Sobhi ABOU CHAHINE
Faculty of Engineering – Beirut Arab University – Lebanon

Dr. Ahmad SMAILI
Chairman of the School of Engineering - Hariri Canadian University – Lebanon

4. The Steering Committee (European Partners)

Dr. Guiliano AUGUSTI
Faculty of Engineering - Universita La Sapienza – Italy
- Grant Coordinator

Mr. Philippe WAUTERS
European Federation of National Engineering Associations FEANI – Brussels - Grant Holder

Dr. Dieter Weichert
Director of the Institute of General Mechanics - Aachen University of Technology – Germany
- President of the Technical Committee

Mr Jean-Francois COMBE & Dr. Bernard REMAUD
Commission des titres d’ingénieurs (CTI) – France
- Vice-President of the Technical Committee

Dr. Claudio BORRI
European Society for Engineering Education (SEFI) – Brussels and University of Florence - Italy

Dr. Iring WASSER
German Accreditation Agency for Study Programs in Engineering ASIIN - Germany

5. Project Official Dates

LEPAC’s official starting date: October 14, 2006
LEPAC’s official inauguration was January 2007 with an opening ceremony in UNESCO Regional Office in Beirut under the auspices of the Minister of Education and Higher Education. Ministry Officials, Presidents of the Order of Engineers, the EU TEMPUS representative in Lebanon, the Lebanese and European Project Partners, University Presidents, Vice–Presidents, Deans, and Professors were present.
LEPAC’s official end date : April 14, 2008

6. The Milestones of the Project

Official Meetings

<table>
<thead>
<tr>
<th>Activities</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steering Committee I in Beirut</td>
<td>January 11, 2007</td>
</tr>
<tr>
<td>Seminar I in Beirut</td>
<td>February 26–27, 2007</td>
</tr>
<tr>
<td>Seminar II in Beirut</td>
<td>March 15–16, 2007</td>
</tr>
<tr>
<td>Steering Committee II in Paris</td>
<td>May 16, 2007</td>
</tr>
<tr>
<td>Technical Committee I in Beirut</td>
<td>June 18, 2007</td>
</tr>
<tr>
<td>Technical Committee II in Beirut</td>
<td>September 18, 2007</td>
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</tbody>
</table>
Lebanese SC partners meetings

<table>
<thead>
<tr>
<th>Activities</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lebanese Steering Committee Meeting 1</td>
<td>November 2, 2006</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 2</td>
<td>December 1, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 3</td>
<td>March 26, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 4</td>
<td>April 10, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 5</td>
<td>April 23, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 6</td>
<td>May 7, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 7</td>
<td>June 11, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 8</td>
<td>August 16, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 9</td>
<td>September 11, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 10</td>
<td>October 18, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 11</td>
<td>November 15, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 12</td>
<td>December 31, 2007</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 13</td>
<td>February 2, 2008</td>
</tr>
<tr>
<td>Lebanese Steering Committee Meeting 14</td>
<td>March 13, 2008</td>
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<tr>
<td>Lebanese Steering Committee Meeting 15</td>
<td>March 27, 2008</td>
</tr>
</tbody>
</table>

7. Project Outcome 1 - Seminar I

Six European experts have present Engineering Programs Accreditation related issues at the first Seminar (held in Beirut on February 26–27, 2007) that has cover the following topics:

- Administrative Structures
- Functioning Committees
- Accreditation Procedures
- Financial Issues
- Case Studies

**Seminar I (day 2)**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
<th>Country</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Education Trends in Europe in a Global Context</td>
<td>C Borri</td>
<td>Italy</td>
<td>University of Florence - Italy</td>
</tr>
<tr>
<td>Engineering Education Status in Relation to the Profession</td>
<td>Ph Wauters</td>
<td>Belgium</td>
<td>FEANI -Belgium</td>
</tr>
<tr>
<td>The EUR-ACE Proposed Accreditation and Labelling System and its Framework Standards</td>
<td>G Augusti</td>
<td>Italy</td>
<td>Università La Sapienza - Italy</td>
</tr>
</tbody>
</table>
Seminar I (day 2)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
<th>Country</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>French Accreditation Systems – Basic Elements</td>
<td>J-M Siwak</td>
<td>France</td>
<td>The Commission des Titres d'Ingénieurs – CTI</td>
</tr>
<tr>
<td></td>
<td>J-F Combe</td>
<td></td>
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<tr>
<td></td>
<td>J-F Combe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>German Accreditation – Basic Elements</td>
<td>I Wasser</td>
<td>Germany</td>
<td>German Accreditation Agency for Study Programs in Engineering ASIIN</td>
</tr>
<tr>
<td>German Accreditation System – Financial Issues, Administrative Structures, and Case Study</td>
<td>I Wasser</td>
<td>Germany</td>
<td>German Accreditation Agency for Study Programs in Engineering ASIIN</td>
</tr>
</tbody>
</table>

Seminar I attendees
All private and public institutions that offer engineering programs listed as follows:

American University at Beirut (AUB)
Beirut Arab University (BAU)
Hariri Canadian University (HCU)
Islamic University of Lebanon (IUL)
Lebanese American University (LAU)
Lebanese International University (LIU)
Lebanese University (LU)
Manar University of Tripoli (MUT)
Notre Dame University (NDU)
Saint Joseph University (USJ)
Université Antonine (UPA)
Université Saint-Esprit de Kaslik (USEK)
University of Balamand (UOB)

8. Project Outcome 2 – Seminar 2

Five European and two Lebanese experts have presented Engineering Programs Accreditation related issues at the second Seminar (held in Beirut on March 15–16, 2007) that has covered the following topics:

Engineering Education Standards
Accreditation Criteria
Assessment and Quality Assurance
Engineering Education Trends in Europe
Case Studies

Seminar II (day 1)
<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
<th>Country</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evolution of the Higher Education in Lebanon</td>
<td>A Jammal</td>
<td>Lebanon</td>
<td>Ministry of Higher Education Lebanon</td>
</tr>
<tr>
<td>Structure de Projet de Self – Evaluation</td>
<td>A H Husseini</td>
<td>Lebanon</td>
<td>Lebanese University</td>
</tr>
<tr>
<td>Evaluation/Accreditation of Portuguese Engineering Programs</td>
<td>J De Silva</td>
<td>Portugal</td>
<td>Escola Superior de Tecnologia – EST</td>
</tr>
<tr>
<td>Engineering Program Accreditation in Ireland</td>
<td>R Hayes</td>
<td>Ireland</td>
<td>Dublin Institute of Technology – DIT</td>
</tr>
</tbody>
</table>

**Seminar II (day 2)**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
<th>Country</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation of Engineering Programs in France: Case Study I</td>
<td>R P Martin</td>
<td>France</td>
<td>The Commission des Titres d'Ingénieurs – CTI</td>
</tr>
<tr>
<td>Accreditation of Engineering Programs in France: Case Study II</td>
<td>B Remaud</td>
<td>France</td>
<td>The Commission des Titres d'Ingénieurs – CTI</td>
</tr>
<tr>
<td>Summary and Conclusions of Seminars I and II</td>
<td>D Weichert</td>
<td>Germany</td>
<td>RWTH – Aachen University of Technology – Germany</td>
</tr>
</tbody>
</table>

**Seminar II attendees**

All private and public institutions that offer engineering programs, have participated to seminar II as in seminar I.

9. Project Outcome 3 - Technical Committee activities

Technical Committee: The participants to seminar I and II, who are the representatives of the private and public higher education institutions, were the core of TC.

Dr. Weichert of RWTH and Mr. Remaud (Mr Combe) of CTI were the president and vice-president of the TC, respectively. Dr. JAMMAL (DGHE in Lebanon) was the local coordinator of the TC. The TC formed two subcommittees:

- Subcommittee I Structure and organization of LABE
- Subcommittee II Procedures of accreditation and criteria of evaluation.

The primary task of the TC is to produce the necessary organizational, procedural, and technical documents for LABE.
Technical Committee Organization

- TC President: Dr. Dieter Weichert
- TC Vice-President: CTI Representative
- Grant Coordinator: Dr. Giulano Augusti
- Coordination Board
- 1st Subcommittee: Organization and Structure of LEPAC
- 2nd Subcommittee: Procedures of Accreditation and Criteria of Evaluation

Technical Committee Members

Local Coordinator: Ahmad JAMMAL (DGHE)

Coordinators:
- Sobhi Abou Chahine (BAU), for subcommittee I
- Ahmad Smaili (HCU), for Subcommittee II

Subcommittee I members: Ahmad Smaili (HCU), Antoine Hreiche, Chadi Hosari Chaiban Nasr (LU), Chawki Diab (CNAM), Fadel Moukaled (AUB), Iyad Ouaiss (LAU), Karim Nasr (UOB), Mohamad Khaldi (UOB), Mohamad Khalil (IUL), Mohammad Nasri (MUT), Moustafa Hamad (NDU), Pierre Geoden (UPA), Sawsan Saridar (BAU), Sylvie Devigne (CNAM)

Subcommittee II members: Abdul Hassan Husseini (LU), Abdul Menhem Koubaissi (IUL), Abdul-Majid Abdul Ghani (LIU), Ahmad Jammal (DGHE), Ahmad Smaili (HCU), Amer Helwani (MEHE, LU), Charbel El Kfouri (Order of Engineers – Beirut), Dani Mezher (USG), Elias Nassar (NDU), Mazen Tabbarah (LAU), Mohammad Taha (HCU), Nazed Ghazal (Order of Engineers – Tripoli), Nuhad Dagher (AUB), Pierre Gedeon (UPA), Sobhi Abou Chahine (BAU), Walid Kamali (MUT)

Technical Committee Documents Outcomes

- Lebanese Accreditation Board for Engineering Education (LABEE):
  Mission, Vision, Responsibilities, Composition, LABEs Membership, Nominations, Selection, Members for the first Board, Membership Period, Mandate, Funding
- Accreditation Policy and Procedures: Licensing Policy, Operation Eligibility Policy, Accreditation Policy, Institutional Eligibility for Accreditation, Program Eligibility for Accreditation, Accreditation Procedures
- Accreditation Criteria: Program, Students, Faculty Members, Facilities, Institutional Support, Program Specific Criteria
• **Accreditation of Established Programs**: Full Accreditation, Conditional Accreditation, *Major Weaknesses and Severe Weaknesses*, No Accreditation, Accrediting New Programs

• **Experts Guidelines and Criteria**: Nominations, Selection, Formation of the Visiting Teams, Accreditation Appeals Board

• **Accreditation Process Guidelines**

• **Preparation for the On-Site Accreditation Visit**

• **Self Study Report (SSR) example**

• **Some useful Appendix**

10. **Project Outcome 4 - Training Visit**

Twelve TC members were chosen for the training visit that was hosted by CTI in France. The aim of the training visit is to observe closely an accreditation process. The names of the Lebanese experts that they went to France for the Training Visit organized by CTI are: Dr. Ahmad Jammal (MEHE), Dr. Amer Helwani (MEHE), Dr. Haissam Ziade (LU), Dr. Mohamad Khaldi (UOB), Dr. Sobhi Abu Chahine (BAU), Dr. Ahmad Smaili (HCU), Dr. Nahed Ghazal (Order of Engineer), Dr. Charbel El Kfouri (Order of Engineer), Dr. Pierre Gedeon (UPA), Dr. Dani Mezher (USJ), Dr. Nouhad Dagher (AUB), Dr. Mohamad Khalil (IUL), Dr. Chaouki Diab (CNAM)

**Training Visit Program**
**Monday, January 7**  14.00 – 17.00  CTI presentation

**Tuesday, January 8**  9:00 – 17:00  The participants are split in 2 groups; they visit 2 “Grandes Ecoles” who have been evaluated by CTI; the main objective is to study the evaluation process viewed from the institutions

  - Group 1 attends as observers the plenary meeting of CTI
  - Group 2 visits SupMeca (public institution), 3 rue Fernand Hainaut, 93407 Saint-Ouen

**Wednesday, January 9**  9:00 – 17:00

  - Group 2 attends as observers the plenary meeting of CTI
  - Group 1 visits EPF (private institution), 3 bis rue Lakanal 92330 SCEAUX

**Thursday, January 10**  9:00 – 15:00  Workshop at CTI

  - Case studies: files provided by institutions, visiting experts’ reports, final conclusion by CTI
  - CTI auto-evaluation report and external review report for ENQA
  - Debriefing and conclusions
  - 15:00 – 17.00 Meeting with CDEFI, Conférence des Directeurs d’Ecoles Francaises d’Ingenieurs
11. Conclusions

The proposed LABEE objectives and responsibilities are the following:

Objectives:
LABEE is to periodically assess engineering programs offered at universities operating in Lebanon and accredit those programs that meet established standards to ensure highest quality of engineering education.

LABEE major responsibilities are:
- Define accreditation goals and objectives and processes for assessing them.
- Assess engineering programs in the context of the specific program objectives and outcomes.
- Provide feedback to institutions for improvement.
- Renders accreditation decisions.
- Identify to all stakeholders the programs that meet the set of standards and criteria.
- Publish accreditation decision to constituencies.
- Set, assess, and maintain policies and procedures.
- Develop, assess, and maintain programs’ criteria.
- Form standing committees to manage details of all aspects of accreditation process.
- Maintain the integrity of the accreditation process (team formation, timelines, etc.).
- Act as liaison between institutions, government, and public.
- Advise the Ministry of Higher Education on licensing new programs.