

THEIERE 2001 second meeting
[Thematic Harmonisation in Electrical and Information Engineering in
Europe]
Nancy, 13 May 2001.

1-The meeting started with a presentation of the THEIERE project made by the general co-ordinator Maria J. Martins.

2- Financial aspects related to the project, namely eligible expenses and budget of the various partners countries were reviewed.

Financial Aspects: Personnel costs will only be paid to students. All other personnel costs are to be considered as co-funding by the universities. Students can be hired to work out modules, and can be paid by the project max 500 EUR as a grant

ELIGIBLE COSTS

- Only activities directly related to activities described in the project application and **carried within the contract period (1.09.2000-31.08.2001)**.
- Only **higher education institutions** or **associations of higher education institutions** belonging to **eligible countries**.
- Costs relating to the **acquisition of technology and equipment** are **NOT ELIGIBLE**

Travel and accommodation costs can be refunded. The following procedures must be followed:

1st phase

- Declaration of real expenses, together with original documents (partners)
- Checking of eligible expenses (co-ordination)
- Sharing of the grant available (co-ordination)

2nd phase

- Request for an invoice which mention the amount effectively** reimbursed (co-ordination)
- Sending of the invoice mentioning the amount effectively reimbursed (partner)
- Payment of the money (co-ordinator).

Accommodation and Subsistence costs should not exceed the maximum amount specified by the Commission

FRANCE- 130 EUR/day/person

For future reference consult the project's website:

<http://www.eaeie.org/theiere>.

3- For the first year activities are divided in two tasks:

TASK 1- Survey of Electrical and Information engineering curricula in Europe

TASK 2- Development of pedagogical modules available through the Internet

4- **TASK 1**-Harmonisation of curricula in Europe. Report to the European Commission must be sent after the first year. Survey on course organisation, kind of diplomas, number of students, specialities, distribution of skills, percentage per gender.

Bibliography: a survey of published works on this issue can be included in a database.

There are three workpackages:

WP1 bachelor (*Valence (France)+Bratislava(Slovakia)=co-ordinators*)

WP2 master (*Nancy (France)+Wroclaw (Poland) =co-ordinators*)

WP 3 doctoral studies (*Limerick (Ireland)+Lille (France)+Prague (Czech Rep)=co-ordinators*)

5- **TASK 2** – There is two support groups (SG). The first one is the **technical working group**, who will define a common template. It will build a model to insert the courses and will work out didactical aspects. The second group will deal with **copyright aspects**.

SG1. Technical aspects: *Valencia + Vigo (Spain) are co-ordinators*

SG2. Problems of copyright (transfer the copyright to the EAEEIE?). Use of software tools Matlab, Labview, ...): *Sheffield (UK) is co-ordinator.*

Task 2: Development of pedagogical resources

Name of the package	Lead site	Participants
Computer and Information systems	Oulu	Mariupol, Valencia, Vigo, Rouse, Wroclaw, Rzeszów, Valence, Setubal, Ljubjana, Hertfordshire
Communication	Ulm	Kaunas, Lisboa, Málaga, Praha, Cagliari, L'Aquila
Electronics	Rennes	Cantabria, Genova
Power systems	Porto	Kaunas, Lisboa, Napoli, L'Aquila, Lappeenranta
Instrumentation and control	Telemark and Rzeszów	Kaunas, L'Aquila, Lille, Nancy, Krakow, Bratislava, TEI Piraeus, Antwerp
Internet services and applications	Valencia and Vigo	Valence, Cagliari
Fundamental	Bratislava and Sheffield	Lille, Nancy, Ulm
Virtual labs	Rouse and Antwerp	L'Aquila, Ravensburg

Task 2 : Transversal actions

Name of the actions	Lead person	Lead institution
Copyright and legal aspects	Mike Diprose	University of Sheffield
Technical aspects of web-based teaching development	José Vincente BENLLOCH and Juan Carlos BURGUILLO	Universidad Politécnica de Valencia and Universidade de Vigo

6- **Grants for the students** are available, upon request to the co-ordinator. The average amount is **500 Euro per student**. A maximum of **two grants** per institution is considered reasonable. Exceptions to these are the technical support group who has developed a model template. Name of the student and content of the work to be performed must be sent to the co-ordinator and will be available on the theiere website.

7- TASK 2-for the technical support group, F. BUENDIA made a presentation of the templates for THEIERE

Two kinds of usability:

- Off-line creation of static pages (for a CD-ROM for instance)
- On-line creation of pages (with a "XML-able" server)

8- TASK 1- Presentation of a questionnaire relative to doctoral studies by Maria J MARTINS (available at <http://www.eaeeie.org/theiere>).

9- Presentation by Tony Ward about an initiative entitled **Career space** (technical and no technical skills). 20 Universities in Europe are involved as well as employers such as: CISCO, IBM, ERICSSON, and NOKIA...

Which University has a complete answer to these skills? Implementation of new curricula considering the inclusion of these skills.

In the afternoon, for task 2, participants subdivided into work groups and presented their conclusions.

GROUP COMMUNICATION: M. HOFFMANN (Universtät Ulm)

- Transmission lines and Maxwell's equation (Lisboa, Ulm...)
- Modulation
- Collection of web addresses where teaching material of communications could be found
- Digital signal processing (next year)
- Communication systems (telecommunications)
- Medical communication (next year)

Installation of a listserver for information exchange in the group

Restricted access

GROUP COMPUTER: P. LAPPALAINEN (Oulun Yliopisto)

* Design for testability of Digital Circuits and Systems (R. UBAR, Tallinn Technical University)

- Part I: hypertext course on testing of digital circuits and systems
Fault simulation

- Part II: laboratory work (virtual environment)

* Intelligent interactive learning environment (O. ZYNOVCHENKO, Mariupol, Ukraine)

GROUP ELECTRONICS: A. SUAREZ (Universidad de Cantabria)

Linear and non-linear PLL (Phase Locked Loop)

GROUP POWER SYSTEMS: J. ESTEVES (IST, LISBOA)

Short term:

Prepare two-hour course on basics of electrical systems and alternate current

Single-phase and three-phase system

Active power and reactive power

Revolving magnetic field

Middle term: animate the proposed course

GROUP INSTRUMENTATION AND CONTROL (Jan Ligus, KOSICE)

Curriculum overview for all the participants including the contents and the frame, references, lab equipment

DEADLINE: 25 May 2001

Course adaptation and recognition for student and staff mobility

Future scenario for a course

* Courses for student

* Courses for industry

* Courses for industry and student

* Courses for staff with focus on technical and pedagogical aspects

Internet and distance lab on possible platform

Visualisation (Matlab, Labview)

<http://alf.fei.tuke.sk/lac>

Finding relevant links connected to these activities

Specialist seminar on selected topics

GROUP VIRTUAL LABS (Raf CATHOOR: ANTWERPEN)

Virtual labs (simulation)

Tele-lab (real remote labs)

GROUP INTERNET COURSE

Embedded help to THEIERE

1) Harmonise concepts and contents

2) Profiles, targets and students

3) Levels

GROUP Fundamentals of EIE (M. HOFFMANN)

Fourier series: application to non-linear circuits

Reorganise materials of INEIT MUCON => XML

Collection of ideas for further math-subgroups => input needed

A possible configuration for a **CAL MODULE** should include:

Description

Academic pre-requisites

Learning objectives/outcomes

Approximate hours of study (ECTS?)

Languages

Usage restrictions

Level (perhaps within 3:5:8 model)

Content overview (theory/simulations) etc.

TRANSVERSAL ACTION (A. WARD)

Behavioural (non-technical skills for EIE students)

TRANSVERSAL ACTION (M. DIPROSE)

Copyright and legal issues

CONCLUSIONS

THEIERE FINAL report must be presented until the end of August 2001.

Actually only a half-year work is planned since a starting meeting was planned in October together With the last INEIT MUCON meeting, but was cancelled because we didn't know at this time if the project had been approved or not. This fact will be referred to the Commission.

IMPORTANT NOTICE: Only activities directly related to activities described in the project application and carried within the contract period (1.09.2000-31.08.2001) are eligible.

All invoices related to the project must have a date within the contract period.