

Multimedia Resource Center
CEREM

University Fernando Pessoa

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CEREM Multimedia Resource Center

Agenda

- **the University Fernando Pessoa**
- **the Multimedia Resource Center**
- **Organization**
- **Research and Development Areas**
- **the NetLab**

This presentation introduces the Multimedia Resource Center in the context of the University Fernando Pessoa.

The main purpose is to present why CEREM is created now and what will be its mission, organization and the main areas for R&D.

The focus of the Center is on people, communication and information derived from the 18 courses of the University Fernando Pessoa. CEREM will give to the University the possibility to create a small replica of an information society that evolves like the real one.

The center is built around the NetLab; a new concept of campus network much like a CWIS that puts a communication among students and lecturers first. The added value of the net is not the central offers in services and information but the interaction among users based on their own notebook computers.

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The University

- **4300 students, 1200 with notebook computers**
- **250 lecturers, 50 with notebook computers**
- **50 administrative staff**
- **18 courses**
- **4 departments**
- **200 network access points, planned 500 next year**

University Fernando Pessoa is the merging result of two Institutes in the year of 1994. The University Fernando Pessoa had a significant growth last year, with more students, lecturers and more activity regarding extra curricula like conventions, seminars, debates, oriented small courses and workshops like these one, from CEREM (II Workshop de informática).

Now the University (1996 figures) has 4300 students, 250 lecturers and an support and administrative staff of about 50 people. The students belong to four different departments: Administration Sciences (Ciências da Administração), Communication Sciences (Ciências da Comunicação), Political and Behavioral Sciences (Ciências Políticas e do Comportamento), Science and Technology (Ciência e Tecnologia).

Presently the University offers eighteen graduate courses and one post-graduation. The figures for the NetLab project are also given (it must be considered that this project start in 1995/6).

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CEREM goals

- **Research and Development**
- **Course support: lectures and labs**
- **Enabling and support technologies**
- **Media integration**
- **Technology Transfer**

The Multimedia Resource Center at University Fernando Pessoa is a research and development project, started in late 1995 with the aim of leveraging efforts in several related areas. The main research areas improve the way humans use information and communicate. One major CEREM goal is the creation of a multidisciplinary group to stimulate projects on digital content and to produce multimedia resources for course support. The CEREM is also responsible for the management of information technology labs and infrastructures at University Fernando Pessoa.

Beyond the creation of the CEREM was the need to integrate the work of different groups like the Radio and TV one, the Computation Group and Publications and Desktop publishers group. Since their creation these groups have evolved each one in their own direction. The possibility to integrate all the work done is now a common interest in part due to the growing evolution of the digital world and also due to the sophistication of the ongoing projects. For last (but not the least) CEREM wants to be a consistent interface to the outside market not just to support activities but first to make the most correct specifications of “real life” human needs on information and technology applications.

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Organization

- **three groups**
 - *Computing Group*
 - *Media Group*
 - *Graphics and Printing Group*
- **10 staff (1 PhD, 3 MSc)**
- **3 PhD, 1 MSc students**

The CEREM organization is a simple one, based on projects and oriented to products (like a new concept, a new application, a video sampler, a multimedia demonstrator or any other product).

On the basis of the CEREM organization are three autonomous groups. They are the Computing Group with computer science interests; the Media Group with video, animation, radio and TV interests; and the Graphics and Printing Group with publishing interests.

The staff associated with the CEREM totals 10 people with a strong involvement in upgrading their own formation. There are three Ph.D. and one MSc thesis under development in collaboration with other universities.

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Areas of research

- **Adaptive, cooperative interface agents**
- **Cooperative, distributed information systems**
- **Synthetic environments**
- **IT-based learning environments**

The activity of the CEREM's computing group covers four main areas:

- *Human Machine Interaction* with large information repositories, exploring agent-based and learning techniques.
- *Virtual Reality* utilization for the representation of corporate information, and for the study of human environment interaction.
- *Distributed and Cooperative Information Systems*, using agent-based interfaces to an object-oriented modeling of large volumes of data.
- IT-based learning environments, using multimedia facilities and networks to augment education results and learning capabilities.

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International collaboration

- **Bournemouth University**
- **Universidad Las Palmas**
- **Michigan University**
- **Université de Technologie de Compiègne**

The international collaboration is now the result of Ph.D. students doing part of their graduation work on these universities.

CEREM is searching for partners and collaborations in projects related with the before mentioned R&D interest areas.

Another offer that CEREM has now, is the possibility to work on is NetLab project, implementing more technology facilities or introducing applications. In a near future, it will be also possible to begin studies about the behavior of the net population.

Work proposals and contacts are welcome!

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NetLab

- **network infrastructure, content oriented**
- **links computer resources**
- **experimental education lab**
- **entry points to virtual campus**
- **prototype for local information society**
- **emphasis interpersonal communication among students**

Every student can connect to NetLab using their own computer or through the campus facilities. Students will be able to use networked facilities, and set up projects on their area: Advertising, Marketing, Anthropology Studies, Communication, Business on-line.

The first year students of all courses have a notebook as a pre-requisite for entry university. Based on this entry specification the introduction of computers in the university day to day has changed dramatically.

Today all necessary conditions to improve quality of documents produced by students are available. The lectures themselves will suffer dramatic changes result of intense use of computer specific software. In addition there is the possibility to all students and lecturers to publish in NetLab.