UT Austin | Portugal

INTERNATIONAL COLLABORATORY FOR EMERGING TECHNOLOGIES, COLAB

Cooperation Program aims to create more richness for the country

UT Austin-Portugal launches academic and commercial programs in the emerging technologies field

The UT Austin-Portugal (CoLab) Program, launched in March 2007, is a long term collaborative project that aims to enlarge significantly the research and post-graduate studies in emerging technologies, with a particular emphasis on Digital Media, Advanced Computing and Mathematics. The program also wants to increase the commercialization of science and technology between Portugal and the global markets.

This program was created in the Portuguese Government's strategy to promote the national scientific and technological ability and reinforce the role of the Portuguese scientific institutions at an international level. It involves a partnership between the University of Texas and several Portuguese universities and laboratories.

Since March 2007, the UT Austin-Portugal team has been concentrated on the project's structure and on the involvement of the research and teaching institutions, as well as the public and private companies, with the primary goal to ensure the success and sustainability of an ambitious ensemble of research and study programs.

This program is structured in three main academic áreas: Digital Media, Advanced Computing and Mathematics. There is also a complementary area that wants to increase the commercialization of science and technology (UTEN Network). Each separate area promotes research and study activities, where we should emphasize the new and innovative advanced studies programs at a Doctorate level, as well as yearly specialization programs (Professional Masters), internships, exchange programs and workshops.

Even though each area has a distinct program, there are common goals to all three academic programs, such as the creation of joint Doctorate degrees in Digital Media, Advanced Computing and Mathematics between the Portuguese universities and the University of Texas. The main objective is to strengthen joint investigation and advanced education on a short term and make so that this collaborative project is able to continue at the end of the 5 years of the CoLab Program.

At the launch of the program, the Minister of Science, Technology and Higher Education, José Mariana Gago, considered that this was "an important step to reinforce, in Portugal, the international collaboration networks related to science and technology".

More about the Digital Media Program

The New University of Lisbon, the University of Oporto and the University of Texas, in Austin, will create education and research centers in Digital Media, which will be located in several departments of these three universities.

The IC2 institute in Austin will work with the Digital Media program and the industrial affiliates programs to foster innovation and the development of business based on new media procedures and technologies and their access to international markets.

The main objective of the project is, not only, give the students ways to explore media technologies and its implications, as well as to create connections between the technologies, design, social and cultural domains and business development.

The Digital Media Program will include a Doctorate program, as well as post graduate courses and professional workshops in new media.

The emphasis of this project will be focused on the challenges related to entrepreneurship and technology associated to the creation, production, and application of the new media technology contents to the international markets.

Activities being developed:

- PHD Program: A new PHD program offered by UNL and UP in cooperation with the members of the University of Texas, in Austin.

- Contribution in existing Doctorate Programs: The students in other programs, such as computer sciences/informatics at FCT/UNL and similar programs at UP can enroll in some of the classes and develop their research inside the program.

- Continuing Studies Program: Workshops for professionals and short courses to train the future academic and professional leaders in Digital Media. These will have 15/20 students in Lisbon and Oporto and the students will have projects that will be later shown at UT Austin or at a Digital Media festival.

- Student Exchange Programs: To promote the students' international experience in the program through a series of exchange programs between the Portuguese universities and the University of Texas.

- Research: To foster collaborative projects in research in the context of Digital Media Program courses and independent study on such topics as online journalism, foundations of Digital Media and research methods. The Portuguese students and the University of Texas will be encouraged to form interdisciplinary research teams with faculty and practitioners outside the classroom.

- Internships: To create important and relevant internships in several corporate áreas for the enrolled students.

- Fellowships and Research Positions: To develop fellowships and temporary research positions at the University of Texas, in Austin and in Portuguese universities for the scholars to visit and teach in, as well as apply their research expertise and quality articles.

- Distance Education: The collaboration between Portuguese public and private institutions and UT Austin should be facilitated with the use of video and audio conferencing and computer-based educational and collaboration media. Particular attention will be given to the use of new media in online instruction and e-learning.

- Curriculum Development: A successful transfer of material and expertise of the teachers to the courses between UT Austin and the Portuguese institutions. Development of innovative courses in areas such as digital narrative, animation and advertising. The creation of short course formats such as five hours a day or 5 days and workshops of one to two weeks.

- Development of studio-based environments for Digital Media projects wherever practicable – an open space mostly managed by students that is interdisciplinary and largely self-regulated can foster creativity.

- Development of integrated knowledge or virtual communities: Expand Digital Media research programs to other disciplines, deepening knowledge generation processes and enlarging the network of Portuguese and UT-Austin research groups. The objective includes fostering projects through which firms can engage in research and development activities, both in-house and through collaborations with university researchers.

More about the Mathematics Program

The Program UT Austin-Portugal includes a specific program for the Mathematics area with an emphasis on the PHD Program, together with the research agenda that will be implemented through collaborative actions, which will involve the academic centers and departments of the Universidade Nova de Lisboa, the Universidade Técnica de Lisboa, the Universidade de Coimbra and Universidade de Lisboa.

The modeling of complex phenomena and applications in diverse areas such as computational biology, financial engineering, computer vision, the web, and the design of modern aircraft, for example requires sophisticated mathematics.

As a result, the program will join the complementary knowledge of the mathematicians and other scientists from several institutions that while interacting in research will:

1. Pull together the available scientific and mathematical expertise to contribute in a significant way to the modern challenges

2. Foster the education and development of scientists who can better respond to the challenges of these new scientific and technological realities.

Activities being Developed:

- PhD Program - The goal is to create a program internationally attractive. The students must satisfy the requirements on all the participating universities and their thesis can be presented at the Portuguese universities, as well as at UT Austin. The students must be involved in research collaborative activities so that they may obtain the most benefits from this program.

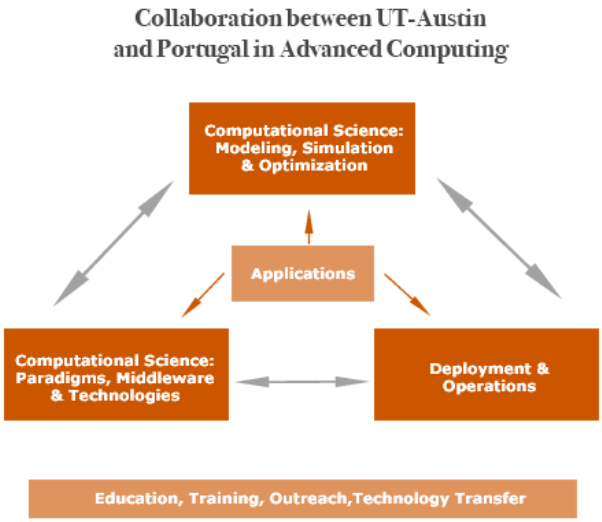
- Graduate Program – This program, whose typical duration period is 4 years, will consist up to two years of courses followed by two more years of thesis preparation. The students should spend two years in each of the participating countries. Usually, the student should do the first and last years in Lisbon and the second and third in Austin.

- Post-doc and Junior Faculty Exchange Program – There should be a regular Exchange of faculty elements to help the organization of workshops that will foster the development of projects and common interests.

More about the Advanced Computing Program

A network of research centers and academic departments cooperates in advanced computing, with educational programs at a PHD and research levels, that aim to support the development and application of new software technologies:

Every entity involved plans to conduct research in the advanced computing field and offer joint educational programs.



More about the UTEN Network (University Technology Enterprise Network)

The UT Austin-Portugal Program includes a consortium of Portuguese universities and research centers like The IC2 institute at the University of Texas, in Austin, to accelerate the science and technology innovation and commercialization processes, focused on the access to the North American markets. Certain Portuguese universities and research centers will form the University Technology Enterprise Network (UTEN).

UTEN Network in Portugal aims to work to accelerate the creation of richness and employment through strategic targets, science and technology based, by developing an emsemble of programs that go beyond the institutional and organizational frontiers in order to foster the technologies' innovation and commercialization in based technology companies.

The University Technology Enterprise Network will work as a managing structure and it will coordinate the activities and programs at the universities and research centers and it will balance the infrastructures and regional collaborators of the participating institutions. UTEN's activities and programs will be directly connected to The IC2 Institute at UT Austin and its more relevant programs such as:

-The Austin Technology Incubator

- Technology Commercialization Training Programs

- MS Degree in Science & Technology Commercialization

- The IC2 Fellows and Global Programs

The main goal of this network is to train the Portuguese scholars and managers so that the lessons learned can help establish sustainable operations among the Portuguese entities. UTEN will be focused on Science and Technology's commercialization to help increase the competitive space, space that the network intends to dominate.

UTEN's Main Goals:

- To increase and accelerate the transfer of technology/Knowledge among Portuguese industry-universities and its application through professional and entrepreneurial internships in Austin and through the development of entrepreneurial projects elaborated by the students and researchers

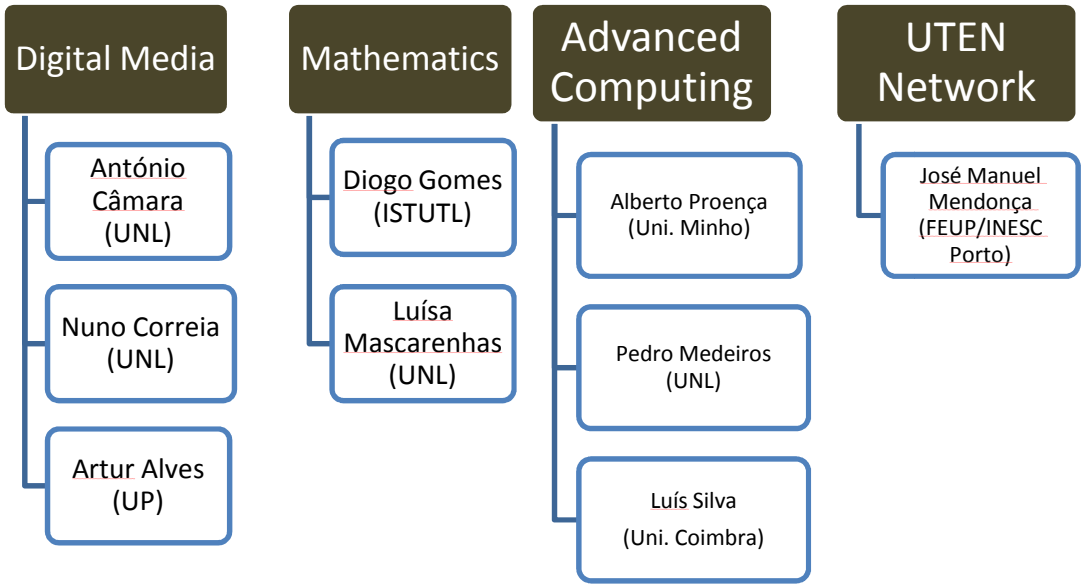
- The access of Portuguese knowledge/technology to the North American and international markets

- Education, attraction and retention of Portuguese entrepreneurial talent

- The good performance of research and education in future challenges will facilitate the commercialization of science and technology in the global markets

- The creation of richness and employment in Portugal

Program's Coordination Portuguese Board



CoLab's Participating Institutions:

Digital Media

- **The New University of Lisbon:** Faculty of Science and Technology (FCT), Faculty of Social Sciences and Humanities (FCSH).
- **The University of Porto:** Faculty of Engineering, Faculty of Fine Arts, Faculty of Humanities, Faculty of Economics and INESC Porto
- **UT Austin:** The College of Communication, the Department of Radio, Television and Film, the School of Journalism, the Department of Advertising, the College of Fine Arts, the Department of Computer Sciences, and the Digital Media Collaboratory.

Mathematics

- **The Technical University of Lisbon:** Department of Mathematics of the Instituto Superior Técnico (IST/UTL)
- **The University of Lisbon:** Department of Mathematics of the Faculty of Sciences (FCUL)
- **The New University of Lisbon:** Department of Mathematics of the Faculty of Science and Technology (FCT/UNL)
- **The University of Coimbra:** Department of Mathematics of the Faculty of Sciences and Technology (FCT/UC)
- **UT Austin:** The Department of Mathematics and the Institute for Computational Engineering and Sciences (ICES)

Advanced Computing

- **New University of Lisbon**: Department of Computer Science of the Faculty of Science and Technology (CS-FCT-UNL)
- **University of Coimbra**: The Dependable Systems Group of the Department of Computer Science (DSG-CS-UC); Centre for Computational Physics (CFC-UC)
- **University of Minho**: Department of Computer Science (CS-UM)
- **UT Austin:** the Department of Computer Sciences (CS), the Department of Electrical and Computer Engineering (ECE), the Institute for Computational Engineering and Sciences (ICES), and the Texas Advanced Computing Center (TACC), Distributed and Advanced Computing Group.

University Technology Enterprise Network (UTEN)

- UTEN's main participants include 13 Portuguese Universities, four Technology Parks, and select research organizations and The University of Texas at Austin, IC² Institute, and the Austin Technology Incubator in Austin, Texas.

CoLab's Directors

In Portugal

- João Sentieiro, Chair, President of the Portuguese Science and Technology foundation (FCT)
- Luis Magalhães, President of the Portuguese Knowledge Agency (UMIC)
- António Câmara, Faculty of Science and Technology, New University of Lisbon

In Austin

- Juan Sanchez, VP for Research, University of Texas at Austin
- Robert Peterson, Associate VP for Research, University of Texas at Austin
- David Gibson, Director, CoLab and Associate Director IC² Institute