Portuguese Universities and ICT Companies Work Closer Together

The Carnegie Mellon Portugal Program launched three new innovation networks, with the goal to consolidate and expand the successful cooperation among all partner institutions and industrial affiliates. For this purpose, three different thematic events sponsored by FCT, one for each innovation network, will work together with corporate executives and members of the scientific community: Innovation Forum on Security and Critical Infrastructure Protection (NET-SCIP), Innovation Forum on Future Internet Services and Technologies (NET-FIT), Innovation Forum on Services and Technologies for Interactive Media (NET-STIM). The three networks will build on the ongoing research and education activities of the Carnegie Mellon Portugal Program, and are envisioned to become active platforms for fruitful interactions between industry and academia.

Security and Critical Infrastructures Protection (NET-SCIP)

The Carnegie Mellon Portugal Program thematic network on Security and Critical Infrastructures Protection was launched on February 22, 2010. The goal is to promote an inter-disciplinary approach by which experts from engineering, basic sciences, economy, design, and psychology come together to create new knowledge and develop security solutions for all kind of users and companies.

"Security is a devil that has to be worked out by companies," said Pradeep Khosla, Dean of the College of Engineering at Carnegie Mellon University, during his guest presentation. Khosla emphasized the ongoing research projects under the Carnegie Mellon Portugal Program that are generating critical mass, which enables competitive research, giving birth to new products and services. Khosla concluded his speech by saying that "research is done best when you work with the best people," and "smart people want to work with smart people."

The mission of the Carnegie Mellon Portugal Program is to create new knowledge in key focused areas of information and communications technologies by means of cutting-edge research, world-class graduate education, and a close connection with Portuguese Industry, thus placing Portugal at the forefront of Science and Innovation.
João Barros, National Director of the Carnegie Mellon Portugal Program, made a general presentation about the Program, and the ongoing research projects. He showed the roadmap for CyLab Portugal, which will be created in June 2010. “This will be a virtual center of expertise in cyber-security that will further connect Portuguese universities and companies to CyLab at Carnegie Mellon University,” said Barros.

At the first round-table, titled “Information and Communication Security,” Manuel Garcia, from Portugal Telecom, moderated a table composed by Paulo Mateus, from Instituto Superior Técnico, Tiago Carvalho, from GMV Skysoft, Frank Pfenning, from Carnegie Mellon University, and André Zúquete, from Universidade de Aveiro. “Critical Infrastructures Protection” was the title of the second round-table moderated by Eduardo Tovar, from ISEP, and composed by Nuno Ferreira Neves, FCUL, António Sousa, EDISOFT, Maria Manuel Farinha, ISQ, and Jorge Rodrigues, Critical Software. The main conclusion of both discussions was that it is important to engage universities and companies to work side by side on research, and on solving important practical problems. This development could give comparative advantages to Portugal in this area that it is crucial to all nations. Another topic was the convergence of telecommunication networks, information systems and control technologies. Given the growing inter-dependency of these systems, the impact of so-called cyber-attacks is no longer confined to information systems. It is now a real threat both to infrastructures and basic services on which we all depend in our everyday life. During this event, the participants discussed the role of ICT in helping and preventing accidents during a natural catastrophe like the one that hit, for example, Madeira Island in February.

**Future Internet Technologies and Services (NET-FIT)**

The Carnegie Mellon Portugal Program thematic network on Future Internet Technologies and Services was launched on February 23, 2010. This network aims to gather the expertise of Portuguese research centers, private companies and government agencies in order to place Portugal at the forefront of innovation in key technologies and services for the Future Internet.

Alfredo Baptista, Chief Technology Officer of Portugal Telecom, in the opening session speech said that “the three networks launched by the Carnegie Mellon Portugal Program are very important to the World, to Portugal, and to the society.” Manuel Heitor, Portuguese State Secretary for Science, Technology and Higher Education, followed emphasizing the first three years of the Carnegie Mellon Portugal Program focused on education, and “now it is time to move forward and create these networks, which are a challenge for researchers and companies to build the future.”

The guest presentation was made by Franco Accordino, of the European Commission’s Information Society. Accordino talked about ICT in the European Commission’s 7th Framework Program for Research, and also about the importance of a Future Internet Public Private Partnership under this framework.
João Marques, from Nokia Siemens Networks, emphasized the importance of creating solutions to solve problems that will come in three or four years, when 6 billion users will be online. Rui Aguiar, from Universidade de Aveiro, said that there are too many players involved in this area, so it is important to build consensus among the companies.

The second round-table, titled “Future Internet Services,” was moderated by Luís Magalhães, President of UMIC, and composed by Alcino Lavrador, from PT Inovação, J. Basílio Simões, from ISA, Pedro Veiga, from FCCN, and Pradeep Khosla, Dean of the School of Engineering at Carnegie Mellon University. Khosla believes that in the near future we will perceive big changes in two different areas: Education and Health Care. In Khosla’s opinion Education will be mobile, and the Health Care services will be in the hands of all. As an example, he talked about the research Project Vital Responder, which is carried out under the Carnegie Mellon Portugal Program. This project uses a simple t-shirt to do an electrocardiogram (ECG). “This project puts a medical exam in everybody’s hands,” said Khosla. Pedro Veiga, from FCCN, stated that in Portugal all universities work under the same network, so now the challenge is at the security level because of the electronic identification of users.

Mariano Gago, Portuguese Minister for Science, Technology, and Higher Education, ended the session emphasizing the importance of building this kind of networks, which enables research inside and outside universities, contributing significantly to the economic development of the country.

Services and Technologies for Interactive Media (NET-STIM)

On February 24, at Pavilhão do Conhecimento, in Lisbon, the Carnegie Mellon Portugal Program launched the thematic network on Services and Technologies for Interactive Media. This thematic network intends to gather the expertise of Portuguese research centers, private companies, and government agencies in order to place Portugal at the forefront of innovation in key interactive technologies and services for digital media.

Manuel Heitor, Portuguese State Secretary for Science, Technology, and Higher Education, made a positive remark about all the partnerships developed by the Portuguese government with American universities (MIT and Austin, for example). In his speech Manuel Heitor argued that the goal of the Portuguese government in launching three partnerships at the same time was to ensure competition among them, and also to enable the creation of national research networks. “Now the partnerships, besides promoting higher qualification, are a platform of discussion were researchers from Portuguese universities, and from Carnegie Mellon, with entrepreneurs from Portuguese companies work side by side,” said Manuel Heitor.
"Technologies for Interactive Media" was the theme of the first round-table moderated by Nuno Nunes, scientific director of the Carnegie Mellon Portugal Program. This round-table was composed by António Câmara, from YDREMS, Pedro Branco, from Engage Lab, Joaquim Jorge, from INESC-ID, Miguel Peixoto de Oliveira, from Edigma, Verónica Orvalho, from Faculdade de Ciências of Universidade do Porto (FCUP), and by Diogo Terroso, from NearInteraction. António Câmara, from YDREMS, talked about the work developed by his company in the interactive technologies areas, and also about his relation with Ph.D. coworker: “I usually tell them to become loose and to submit their more incredible ideas to us,” adding “they have to give us confidence that they can do it.” Verónica Orvalho, researcher from FCUP, talked about her project which intends to help autistic children to recognize facial expressions. Diogo Terroso, from NearInteraction, considers that the future of the Interactive Media will be based on design, “in gestural interfaces which will recognize our body and facial expressions.”

"Services for Interactive Media" was the theme of the second round-table, which was moderated by Nuno Correia, Co-Director of Digital Media, UT Austin Program, and composed by Carlos Amaral, from Priberam, Isabel Trancoso, from INESC-ID, António Silva, from Nonius, Heitor Alvelos, from Faculdade de Belas Artes of Universidade do Porto (FBAUP), Pedro Quintas, from Collab/Novabase, Valentina Nisi, from Madeira Interactive Technologies Institute, and José Carlos Gonçalves, from Lógica Ibérica. Carlos Amaral, from Priberam, advocated for a closer relation between universities and companies. Amaral gave the positive example of André Martins, Ph.D. student in Language Technologies in the Carnegie Mellon Portugal Program, which brought to Priberam new ideas, like launching the Priberam Machine Learning Lunch Seminars 2010. Isabel Trancoso, from INESC-ID, emphasized the importance of working with Carnegie Mellon University, Pittsburgh, which has more people per capita working in Language Technologies areas worldwide.

"We need to attract students to Science and Technology. We need to show them that to do research is very interesting,” said Isabel Trancoso, from INESC-ID.
Carnegie Mellon Portugal Program Diploma Ceremony
Graduates received their dual degree diplomas

With the sound of classical music and an audience that included faculty, staff, family, and friends, the Carnegie Mellon Portugal Program graduates received their diplomas from the rector of the Portuguese university that hosted them, and from the President of Carnegie Mellon University. The four Professional Master of Science degrees awarded included Information Networking (Carnegie Mellon University and Universidade de Aveiro); Information Technology-Information Security (Carnegie Mellon University and Universidade de Lisboa); Human-Computer Interaction (Carnegie Mellon University and Universidade da Madeira), and Software Engineering (Carnegie Mellon University and Universidade de Coimbra).

In his welcoming remarks, José M.F. Moura, ICTI@CMU director, emphasized the boldness of the sixty graduates who “believed and won the challenge of doing a dual Professional Master’s degree program.” The student speaker, Nuno Seixas, earned his degree in Software Engineering, stated that “besides being extremely demanding, the Professional Master’s were also technically complete, and always focused on applying knowledge to problem solving for the industry. By graduating from these programs, we got the technical knowledge, but also a new way of looking into problems, a new way of finding solutions. Overall, we got a whole new way of thinking and working. This knowledge is perhaps the most valuable that we could get, and it can be applied throughout our entire career, no matter what kind of work we might be doing.”

“Now we are officially agents of change,” said Nuno Seixas.
The keynote speech was given by Alfredo Baptista, Chief Technology Officer (CTO) of Portugal Telecom, who shared his professional and personal reflections. Baptista emphasized that “with work, perseverance and humility it is always possible to get where we want.” He explained the role of Portugal Telecom in the Carnegie Mellon Portugal Program, which aims “to contribute to the advancement of technology and innovation.”

“I am certain that the success of these professionals will contribute to the accomplishment of companies in which they work, and also to the success of Portugal,” said Alfredo Baptista, CTO of Portugal Telecom.

During the ceremony, Portuguese rectors, their representatives, and the president of Carnegie Mellon University spoke about the importance of the dual degree Professional Master’s programs to their universities, and to the economic development of Portugal.

The ceremony was attended the Portuguese rectors of the Universidade de Lisboa and Universidade de Coimbra, António Sampaio da Nóvoa and Fernando Seabra Santos. Also, the Vice-Rector of the Universidade de Aveiro, José Fernando Mendes, a Representative of the Universidade da Madeira, Nuno Nunes, the President of Carnegie Mellon University, Jared Cohon, and the directors of ICTI@CMU and ICTI@Portugal, José M.F. Moura and João Barros. The Professional Master’s Program Coordinators from the Portuguese universities and from Carnegie Mellon, along with faculty, staff, family members of the graduates, and friends were also in attendance to witness this festive event.
Can machines learn human behavior?

Portuguese Ph.D. Student Launches Priberam Machine Learning Lunch Seminars

Dual degree Ph.D. student in Language Technologies (LTI) André Martins started a new seminar series in Machine Learning that did not yet exist at Instituto Superior Técnico (IST), in Lisbon. These events are sponsored by the Portuguese company Priberam, the world’s leading supplier of natural language processing technologies for the Portuguese language and the market leader in law knowledge management systems in Portugal.

The first seminar, titled “Text-Driven Forecasting: Meaning as a Real Number,” took place at Instituto Superior Técnico, in March 9th, 2010. The invited speaker was Noah A. Smith, an assistant professor in the School of Computer Science at Carnegie Mellon University. His talk included joint work with Ramnath Balasubramanyan, William Cohen, Dipanjan Das, Kevin Gimpel, Mahesh Joshi, Shimon Kogan, Dimitry Levin, Brendan O’Connor, Bryan Routledge, Jacob Sagi, and Tae Yano.

Noah and his team “conjecture that forecasting tasks, when considered in concert, will be a driving force in domain-specific, empirical, and extrinsically useful natural language analysis. Further, this research direction will push NLP to consider the language of a more diverse subset of the population, and may support inquiry in the social sciences about foreknowledge and communication in societies.”

The goal of these events is to create a new platform for discussion involving different research groups (inside and outside IST) with a common interest in this field. The Priberam Machine Learning Lunch Seminars will be about statistical learning theory, signal processing, pattern recognition, computer vision, natural language processing, computational biology, neural networks, control systems, reinforcement learning, and anything related with machine learning.

Mate Boban Reflects on his Experiences as an ECE Ph.D. Student in Porto

Mate Boban went to Carnegie Mellon University as a Fulbright Visiting Researcher in Electrical and Computer Engineering (ECE), a position he held from August 2007 to January 2009. It was during those 18 months that he learned of the Carnegie Mellon Portugal dual degree Ph.D. Program.

“The idea of studying and doing research on two continents appealed to me instantly,” said Boban. He applied for the Program and was accepted in the spring of 2009, when he began his nine month stretch of doctorate studies at the Faculdade de Engenharia Universidade do Porto. Boban said that he immediately fell into step with life in Portugal, attending lectures, exploring the city, working with other students, and getting to know the people of Porto.

“I quite liked the warmth and the selflessness of the people in Portugal,” he said. “Furthermore, having awesome lab mates which are always up for whiteboard discussions, no matter how wacky the discussed idea seems to be, is simply priceless.”

His advisors are Ozan Tonguz, from Carnegie Mellon University, and João Barros, from Faculdade de Engenharia da Universidade do Porto.

Read full article at http://www.cmuportugal.org/tiercontent.aspx?id=2424
March, 2010
Carnegie Mellon Portugal in Leading News Channel

Carnegie Mellon Portugal Program: Partnership has 39 ICT Partner Companies

Carnegie Mellon Research Provides Insight Into Brain's Decision-Making Process

Processors on the Brink of Revolution

“Carnegie Mellon wants partnership with Portugal after 2011”
Interview to Jared Cohon, president of the Carnegie Mellon University to the Newspaper Diário Económico.

February, 2010

Innovation Network on Security and Critical Infrastructure Protection was Launched in Coimbra

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