Student Orientation Promotes Entrepreneurial Experiences

On Saturday, September 18th, 2010, the Carnegie Mellon Portugal Program held the annual Orientation Day in Portugal, at Faculdade de Ciências e Tecnologia da Universidade de Coimbra (FCTUC).

The presentations were given to the audience of approximately 25 newly enrolled students who participated in a one-day orientation program. Students already enrolled in the Carnegie Mellon Portugal program shared their valuable advice on living and studying in Portugal, and the company representatives gave the students an opportunity to understand the challenges with establishing start-up companies by emphasizing the importance of innovation.

João Gabriel Silva, head of the Faculdade de Ciências e Tecnologia da Universidade de Coimbra, made the welcome speech. He praised the progress of the Program, and emphasized the commitment of the Universidade de Coimbra to the partnership. The dual degree of Professional Master’s of Software Engineering, taught at FCTUC, has been a great success in both academics and industry, causing many Portuguese companies to become actively involved in the Program. The highlights of the Carnegie Mellon Portugal Program were presented by João Barros, national director of the Carnegie Mellon Portugal Program. In his presentation, he emphasized the students’ innovative research, newly-hired and renowned faculty members, and the successful Program research projects. Barros also spoke about the importance of the Program’s strategic areas and emphasized the industry involvement (over 55 companies) in the partnership.

Currently, 226 students are enrolled in the program, 60 of which have graduated. João Barros highlighted the fact that “the most important ingredient of this partnership is the students.”

Rui Meireles, Ph.D. student in Computer Science (CS), and Filippo Cagnetti, post doc in Applied Mathematics, presented their experiences and expectations within the Program and in Portugal. Meireles started his presentation by congratulating the newly enrolled students: “you made it into a great program that will change your life forever!” Meireles made a comparison between the research work and the envi-
FCT Funds 12 New Carnegie Mellon Portugal Research Projects

In September 2010, the Portuguese Fundação para a Ciência e a Tecnologia published the results of the Second Call for Research and Development Projects, under the Carnegie Mellon Portugal Program.

The independent evaluation panel analyzed 22 projects and selected 12 to be funded by this partnership. The evaluation panel included Professor Sir John O’Reilly (chair), Professor Luísa Carlucci Aiello, Professor Tariq Durrani and Professor Joel Moses. These projects will be carried out during the next three years.

The research projects funded under this second call converge on the strategic areas of the Program, including Software Engineering for Large Scale Systems, Cyber-physical Systems for Environmental Intelligence, New Generation Networks and Resilient Operations in a Network Environment, and other areas related to Information and Communication Technologies (ICT).

At this time, the Carnegie Mellon Portugal Program is supporting the development of 22 research projects. Each project includes at least two research institutions in Portugal, one research group at Carnegie Mellon and one Portuguese company. A financial commitment from the industrial partner is expected, which can take many forms from direct funding to man power or prototyping. The impact of these projects will be measured by the successful deployment of research prototypes and the adoption of new services by companies and by building successful partnerships between industry and academia.

More information available at www.cmuportugal.org

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See more pictures of this event at www.cmuportugal.org
Logica Hires Alumni and Launches New Lab in Madeira

André Dória and Nuno Laginha are two alumni from the dual degree Professional Master of Human-Computer Interaction program, offered by the Universidade da Madeira and Carnegie Mellon University. Both finished their Professional Master in December 2009, and were hired by Logica a few months later to develop a new business area in Madeira: Logica Service Design Lab.

Before joining the Professional Masters program, Dória and Laginha studied diverse areas. Dória is from Software Engineering (Universidade da Madeira) and Laginha is from Communications and Multimedia Design (Instituto Politécnico de Coimbra). This multidisciplinary focus is one of the most important advantages of the Professional Master of Human-Computer Interaction, which joins people from different professional areas and cultures and combines their knowledge and experiences.

“Experience absolutely fantastic! I experienced moments which will stay in my memory forever”
- Nuno Laginha, MHCI alumni.

“Experience absolutely fantastic! I am very proud to be a Carnegie Mellon Portugal Program alumus because we belong to an “elite” of Portuguese students who have successfully completed a top Masters worldwide. This is very gratifying and reinforces the value of dedication and effort undertaken. This experience was very rewarding, from the contact with colleagues and teachers of different nationalities and backgrounds, from whom I learned a lot, to the unique opportunity to study in one of the world’s best universities. I also emphasize the spirit of mutual help, friendship and professionalism among colleagues, in particular the Portuguese.”
- Nuno Laginha, Alumni of the MHCI program

Currently, Dória and Laginha are consultants in the company. They are also developing a new Research and Development business area: Logica Service Design. They work on the implementation of procedures of usability, contextual research, and finding new opportunities for consumer services, interface design, and prototyping of innovative concepts that can be demonstrated to partners and customers from Logica. “Our intervention is transversal to the different business units,” said Laginha, “however being more engaged in the area of energy and ‘Utilities.’”

For Dória his experience in the professional master was “intense and challenging,” because it gave him the opportunity to work in an area that he admired, and also to work with the best of the best. For Nuno Laginha, this experience was “absolutely fantastic! I experienced moments which will stay in my memory forever.”

To be a Carnegie Mellon Portugal Program Alumnus...

The Program in the News and Media

- Portugal Aims to Modernize With the Help From the U.S.: Effort to Align Academe and Industry Relies on Campus Partnerships [Read article]
- Carnegie Mellon and MIT Joined the Network of Research Mobi.e [Read article]

On the Calendar: Upcoming Events

| October 11-12 | Annual Meeting: Public Policy and Innovation Dynamics in Network Industries |
| October 13, 2010 | NET-SCIP Workshop on Security |
| October 14-15, 2010 | ERC Meeting |
| October 15-16 | Board of Directors |

To be an alumni of the Carnegie Mellon Portugal Program is to be a part of a group of people who went through similar experiences. I personally feel that I won, that I crossed barriers and that I belong, with all the credit, to a group of extraordinary people.”
- André Dória, Alumni of the MHCI program
MSE Program Officially Welcomes New Program Coordinator

In March 2010, the Carnegie Mellon Portugal Professional Master of Software Engineering (MSE) program officially bid farewell to former Program Coordinator Paulo Marques and welcomed Marco Vieira to the helm. In a farewell letter, Marques said, “These last three years were extremely intense, with immense challenges as well as successes.”

Marques has been with the Carnegie Mellon Portugal Program since day one. In 2007, he was the first Portuguese faculty member of the Program to spend time at Carnegie Mellon, an exchange which he says “had a profound effect on me, both at a personal and at a professional level.” Through his involvement with the Program, he was able to forge personal friendships and research contacts with many of Carnegie Mellon’s faculty and staff, as well as act as a liaison between the Universidade de Coimbra (UC) and Carnegie Mellon.

“I really believe that the Carnegie Mellon Portugal Program has a big impact on universities, industry, and the society at large,” said Marques. “I was the first volunteer, […] because I believe in it. I believed we are changing the world together.”

The coming year will see Marques on sabbatical, focusing on the Carnegie Mellon Portugal Aeminium research project (for which he serves a Principle Investigator), updating his book on software development in C# and .NET, and growing his spin-off company FeedZai.

The sabbatical is an opportunity afforded to faculty in Portugal every seven years, one that Marques did not want to say no to, despite the certainty that he would not have enough time to run the program. The trade-off? Saying goodbye to the program that he had seen from infancy to fruition. However, Marques leaves with the assurance that the MSE Program will continue to thrive.

“Paulo [Vieira] is one of the best researchers and teachers I know,” said Marques. “I think that the MSE program and the partnership are in great hands!”

Vieira has taught in the MSE program since the first year and was one of the first UC faculty members to go to CMU for training and certification.

“I hope I’ll bring new ideas and fresh vision to the MSE program.” - Marco Vieira, New Coordinator of the MSE Program.

Vieira sees this new position as “a huge challenge,” but he is clear about his goals. One, perhaps the most obvious, is to “guarantee the continuity of the work performed by Paulo Marques,” with whom Vieira credits with the program’s success.

“Paulo did extremely good work in implementing and coordinating the Program,” said Vieira. “He should be held responsible for the current success of the MSE program in Portugal.”

The future success of the program, however, will lie in its ability to garner recognition from other countries and to draw students from those countries. Vieira sees this as an important goal because the Portuguese software development market is small. The program rides on its affiliates’ capacity for software development. Thus, internationalization will be a vital component to the lasting success of the MSE program, and yet it is one that has remained somewhat elusive. Attracting foreign students can be difficult, Vieira said, even more so because of the current economic situation.

“I hope I’ll bring new ideas and fresh vision to the MSE program,” said Vieira, who remains determined to ensure the program’s success. Vieira is an expert on experimental dependability and security assessment and benchmarking.

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His research interests are in robustness assessment and improvement in Service Oriented Architectures (SOA), fault injection, security in database systems, software development processes, and software quality assurance. He has authored and co-authored of more than 60 papers in refereed international conferences and journals in these subjects.
On September 7th, 2010, the Carnegie Mellon Portugal Program at Carnegie Mellon organized a night of information and celebration. The night started with a "meet and greet" in the calming environment of the Singleton Room in Roberts Hall. Students starting their academic year at Carnegie Mellon University in fall 2010 were invited to the event, as well as the returning students in the program.

After mingling with other Program students, faculty and staff, the informative aspect of the evening began with Program Director at Carnegie Mellon, José M.F. Moura, addressing the attendants with a presentation about the partnership. He welcomed the new students and introduced them to some essential details about the Program. In his presentation, he outlined and explained the mission statement of the Program of creating new knowledge in key focused areas of information and communication technologies by means of cutting-edge research, world-class graduate education and a close connection with the Portuguese Industry, thus placing Portugal at the forefront of Science and Innovation.

Professor Moura also explained the goals of the program of internationalization, planting seeds of change, producing highly educated professionals, recruiting the best candidates in graduate students and faculty, and collaborating between Universities and Research Institutes. He also stressed the importance of the affiliated companies’ role in the Program. Additionally, he called attention to the significant growth of the Program and the consistent increase in academic enrollment since the Program’s inception.

Professor Peter Steenkiste, Carnegie Mellon Portugal Program Area Coordinator at Carnegie Mellon and faculty member in Computer Science and Electrical and Computer Engineering, addressed the room, explaining to the students the role of their advisors, and additionally, emphasizing the importance of proper attribution and avoiding plagiarism. He also stressed the importance of academic discipline and the value of balancing work and the personal life.

After this presentation, three dual degree Ph.D. students addressed their peers with some tips and advice about being a Carnegie Mellon Portugal student at Carnegie Mellon. Presenters included: Luis Brandão (Ph.D. student in ECE), Patrick Agyapong (Ph.D. student in EPP), and Alexandre Mateu (Ph.D. student in EPP). Students were given advice on techniques to balance work and fun, what to expect in the winter months on campus, best nightlife spots in Pittsburgh, and how to get around the city.

Following the three students presentations, Lori Spears, Associate Director of this partnership at Carnegie Mellon, gave the closing remarks of the event, thanking the students, faculty, and staff for attending the event.

There were approximately 40 people in attendance for the Orientation night.

Five Taxi Cabs Test Prototype from the DRIVE-IN Project

The DRIVE-IN project, developed under the Carnegie Mellon Portugal Program, is moving forward in accomplishing its goals. Currently, the first five Portuguese taxi cabs are already using a prototype that is helping researchers to test and to collect data. In the very near future, 500 taxi cabs will be using this system.

The bet is huge but one of the most important steps was already achieved: the agreement between the research team in charge of the DRIVE-IN Project and the RadiTaxis cooperative from Porto, Portugal, was signed. Michel Ferreira, project leader, said: “with 500 vehicles we will have a network which will allow us to simulate and test efficiency of our research that is carried out indoors.” With these first five taxis, the team is already making tests and collecting data for analysis.

In the beginning of the testing phase of this research project, the communication between vehicles will be made in 3G, but the goal is to change it to the Digital Short Range Communications (DSBRC). “Once we will be able to change to DSBRC,” said Michel Ferreira, “it will be a tremendous achievement.” In the future, cars will gather information which will be provided for free to all other vehicles in a vehicular ad-hoc network (VANET).

The goal of this project is to investigate how vehicle-to-vehicle communication can improve the user experience and the overall efficiency of vehicle and road utilization. The DRIVE-IN project aims to explore two main issues: traffic efficiency and entertainment.

DRIVE-IN addresses both foundations and applications of inter-vehicle communication. Concepts, methodologies and technologies will be developed in the three main research thrusts: Geo-optimized VANET protocols, intelligent and collaborative car routing, and VANET applications and services. These research thrusts shall fertilize horizontal activities covering realistic large-scale simulation and massive real-life experiments in urban environments.
Annual Meeting

Public Policy and Innovation Dynamics in Network Industries

Interdisciplinary research at the intersection of engineering, innovation, management and public policy with application to Network Industries has been a trust area developed in the context of the Carnegie Mellon Portugal Program.

This annual meeting will provide an overview of the research accomplishments achieved so far in this field. Additionally, it will lay down solid ground for continued collaboration between Portuguese research and education institutions and Carnegie Mellon University on research applied to critical networked infrastructures. Students, post-docs, research fellows and faculty, both from Portuguese Universities and from Carnegie Mellon University, will present ongoing work and discuss results and ideas for future research with a number of companies as well as governmental agencies.

For more information, please visit http://net-scip.cmuportugal.org

NET-SCIP Workshop on Security

The Innovation Network on Security and Critical Infrastructure Protection (NET-SCIP) is currently gathering the scientific community, the private sector and the main government agencies in Portugal with the goal of developing comparative advantages in new security technologies, services, and protection of critical infrastructures.

As part of this initiative, NET-SCIP is organizing a one-day workshop on the 13th of October 2010 at Faculdade de Engenharia da Universidade do Porto, Porto, Portugal.

Theme & topics:
The convergence of telecommunication networks, information systems and control technologies has become a reality. The internet is more and more the platform of choice for the many information flows that support critical infrastructures and critical information and communication systems. Examples include energy and fuel networks, supply chains for materials, water and food, transportation networks and healthcare systems, as well as medium and large enterprises exploring business relationships in an open global market of inter-dependent services.

At the same time sophisticated technologies based on sensor networks allow for the aggregation of physical data in real time with respect to spaces, equipment and people. Given the growing inter-dependence of all these systems, the impact of cyber-attacks is no longer circumscribed to particular information systems and is now a real threat both to the infrastructures and basic services on which we all depend in our everyday life. Centered on scientific and technological advancement, NET-SCIP shall 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 kinds of users and companies.

For more information, please visit http://net-scip.cmuportugal.org