NEW TOOLS FOR ENERGY OPTIMIZATION AND CONTROL

The Center Motion Control and Industrial Applications (MCIA UPC) has been involved in the development of two tools to assist in the design, management and operation of energy systems, air conditioning and electricity supply in tertiary sector buildings, particularly residential homes for the elderly, hospitals, sports centres, hotels and offices. The first tool consists of a web application designed to make fast calculations of a building’s energy demands (heating, hot water, air conditioning and electricity) using economic, energy and environmental criteria. The second tool is an application that can be executed on a computer that helps to manage and oversee building’s energy systems. It reduces the time that users need to spend on these tasks by 70%, and increases the reliability of the system’s alarms.

The project was developed as part of the INNPACTO call for applications by the Spanish Ministry of the Economy and Competitiveness. Other members of the consortium include ELECTROMECÀNICA SOLER SL, SOLER GLOBAL SERVICE SL, AND SOLER ENERGY SERVICE SL, which are all part of the GRUP SOLER, and the CTM.

A NON-INVASIVE LASTER THAT DETECTS FETAL PULSE IN REAL TIME

The Centre for Sensors, Instruments and Systems Development (CD6 UPC) has developed a non-invasive, low-cost laser that can detect a fetal pulse in real time. Drawing on photonics, the fetal pulse is detected by analysing the mother’s blood flow with a laser biosensor. The same technology can be used to detect in just a few seconds whether a person has skin cancer. Other applications can be developed for this system, including continuous monitoring of the fetus and the assessment of its behaviour in the mother’s uterus.

The technology has already been patented in conjunction with BCB Electrónica y Control.

NEW APPLICATION FOR DEPENDENCY CARE

InLab FIB UPC has developed GerApp, a mobile application that opens up a channel of communication between elderly people who live in residential homes and their relatives. Through the smartphone application, relatives can check at any time what the patient has eaten, how they are, and their daily progress, and consult a record of past information. The notifications that families receive are encrypted to ensure privacy.
The project was awarded the “Prize for the best innovation in dependency care and the promotion of personal autonomy 2014”, which was given by the Catalan Association of Healthcare Resources (ACRA). It was developed by Smart Technologies Development (STD), and is already available on Google Play and on the Apple Store.

FIRST MEETING OF CATALAN RESEARCH AND TECHNOLOGY FOUNDATIONS

On 6 May, the First Meeting of Catalan Research and Technology Foundations of the Catalan Foundations Coordinator (CCF), of which the CIT UPC Foundation is a member, took place. The meeting was held in the headquarters of the Cercle d’Economia, and was opened by Antoni Castellà, the Government of Catalonia’s Secretary for Universities and Research. It addressed strategic and operational topics that are of interest to the 84 foundations that are members of the CCF and work in this sector. The main results of the European Foundations for Research and Innovation were presented by the Center for Philanthropic Studies of the VU University Amsterdam, and experiences and approaches to labour and taxation were shared.

NEXT COURSES 2015

- Creación de rutas guiadas (12th June)
- Compatibilidad electromagnética en el diseño electrónico (29th June)

SPEAKER AT APIdays MEDITERRANEA

PhD. Lluís Padró, the director of TALP UPC, was a speaker at l’APIDays Mediterránea. APIdays is the main, independent conference on application programming interfaces held worldwide. Padró presented TextServer, the new web services platform for linguistic analysis that the center is working on. APIdays Mediterrània is the southern European edition of APIdays, and brings together developers, IT administrators, new companies, corporations and those involved in the API industry to discuss, learn and share information about the future and API business, at the Mobile World Centre in Barcelona.
CYBERCRIMES ARE STILL ON THE RISE

There are some who think that phishing has gone out of fashion. But according to reports by the Anti-Phishing Working Group (APWG)\(^1\), the number of attacks of this kind rose again in 2014 to reach the highest ever levels (a new case every two minutes; almost 250,000 a year in total). In the same year, the number of web domains set up for identity theft also increased [...]

INNOVATION UNION SCOREBOARD 2015

The Innovation Union Scoreboard 2015 has been published, a reference document on the state of innovation at European level. Sweden came out as leader in innovation, followed by Denmark, Finland and Germany. The countries with the greatest growth were Malta, Latvia, Bulgaria, Ireland, the United Kingdom and Poland. Spain was ranked number 19 out of 28 countries, which put it in the group of “moderate innovators”, which are those countries that have a 40% innovative capacity on the index measured in the report.

PRESENTATION OF THE BAROMETER OF INNOVATION IN CATALONIA 2014

On 27 May, the Barometer of Innovation in Catalonia was presented. This Barometer is drawn up by the Government of Catalonia through ACCIÓ, and constitutes a pioneering instrument in the assessment of innovation in companies. Some notable figures are that 19.6% of the total number of Catalan companies (with over 9 employees) commissioned or developed R+D in 2014; 84.6% of innovative companies forecast an increase in turnover; 71.3% of these companies will increase productivity; and 36.8% will create new jobs.
THE FUTURE IS OPEN: 2015 STATE OF INNOVATION

Thomson Reuters has published "The Future is Open: 2015 State of Innovation", a report that assesses patent and research publication activity in 12 industrial sectors. The report analyses the impact of the drop in innovation activity worldwide, caused by the recession, and shows how innovation is a key factor of economic growth. It also indicates that the total volume of patents is reaching a maximum, and that companies are increasingly adopting open innovation.