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## Awards

### Seed of Science in Engineering and Technology Award to José Teixeira



José Teixeira, Full Professor and Director of the Department of Biological Engineering (DEB) of the EEUM, has been awarded the Seed of Science in Engineering and Technology Award by the “Ciência Hoje” online journal for its work on the project Nanopacksafer.

The project, coordinated by Professor José Teixeira, develops intelligent food packing. The packages have antimicrobial, mechanical and thermal properties, through edible nanocoating (edible protection), non-edible film and nanoparticles.

The Seeds of Science Awards have been created in 2008 by the “Ciência Hoje” journal in order to annually honor the scientists and personalities which have contributed to the development of science.

## News

### Top 27 Portuguese personalities includes researchers from the EEUM

On the 30<sup>th</sup> December, TVI, a national television broadcasting network, has published a list of the top 27 Portuguese personalities which stood out in 2011 due to their achievements in several areas.

The list includes two personalities from the EEUM: Professor Rui Reis, Full Professor at the Department of Polymer Engineering (DEP), who was granted the George Winter Award last September, the most important European award for biomaterials, and the researcher Margarida Machado, Master in Biomedical Engineering and researcher of the Mechanical and Materials Technology Centre (CT2M), who was granted the award for best scientific article last August during the 8th International Conference on Multibody Systems, Nonlinear Dynamics, and Control, organised by the American Society of Mechanical Engineers.



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## SpinUM competition – EEUM in the selected projects



Organised by TecMinho, in partnership with the Spinpark, the SpinUM – Business ideas competition intends to award and support innovative business ideas in any scientific or technological domain, in one of the most entrepreneurial universities in the country, the University of Minho.

The competition is directed to researchers, students and alumni of the UMinho.

The EEUM was present in the selection of finalists of the 4<sup>th</sup> edition of the competition, as four of the seven chosen projects were developed by faculty, researchers, students or alumni of the EEUM, in areas such as informatics, biomedical engineering and industrial electronics.

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## DET presents Bioswim project



André Catarino, Professor at the Department of Textile Engineering (DET) of the EEUM, presents the Bioswim project. The project comprises a new wireless swim suit to monitor swimmers, which includes 17 sensors and allows monitoring several signs related to vital functions, movement or sports parameters.

Since 2005 researchers have been trying to monitor biomechanical parameters of competition swimmers, as they are more complex. With this project, data can also be obtained regarding leisure activities or medical patients, Professor André Catarino explains.

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## Researchers of the EEUM publish a book about Electric Cars



Professor Jorge Martins and post-doc student Francisco Brito, of the Centre for Mechanical and Materials Technology (CT2M) of the EEUM, have recently edited the book “Carros Eléctricos” (Electric Cars). The book broadly illustrates the evolution of this type of vehicle and intends to support the growing impact of this technology, not only in automobile industry but also in society in general, as both authors refer.

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## PIEP in Iberian network of green materials for automobile industry



The Pole for Innovation in Polymer Engineering (PIEP), one of UMinho’s interfaces, represents Portugal in the Iberian network GreenMotion, which aims at boosting the creation and utilisation of green materials for the automobile industry.

The GreenMotion project intends to increase the competitiveness of automobile part industries in the euro-region of North Portugal/Galiza, through a virtual platform which would allow them to access information on ecological materials to use in this activity sector, thus promoting the materials’ integration in vehicles.

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## CCG and DEI present project WingBox



The Centre for Computer Graphics (CCG) of UMinho, in co-operation with the Department of Industrial Electronics (DEI) of the EEUM, has developed the multitouch tables WingBox, which comprise specific and personalised content for several areas such as education, entertainment, culture, tourism and enterprises. The users are able to interact automatically and stimulatingly with several applications, navigate maps, zoom in and out of pictures, touch and drag objects, increase and reduce image size as well as flip virtual pages.

This innovation has already been displayed in several national and international exhibitions, namely Qualific@, EXPONOR and CEBIT, the world’s largest digital technology exhibition.

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### Adaptive robots developed by DEI

The Department of Industrial Electronics (DEI) of the EEUM is developing an ambitious project which seeks to provide robots with intelligent and adaptive mobility. According to Cristina Peixoto Santos, Professor at DEI and project coordinator, “*one of the future applications of this project will be the creation of prosthetics and more natural artificial limbs, contributing to the mobility, autonomy and rehabilitation of people who have been amputated*”. The innovation of the project is the integration of biological controllers in every model, which will allow the robots to create a more natural and less robotic movement pattern, also allowing them to adapt to the environment they move in. The goal of the project “Adaptive and intelligent locomotion” focuses on robot programming so that they make autonomous decisions, through an architecture, which reproduce what happens in the human nervous system.

**ENGInews** is a publication of all members of the EEUM.

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