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<http://www.uab.cat>



Bilateral Meetings

- Wednesday (2:00pm - 4:00pm)
- Wednesday (4:00pm - 6:00pm)
- Thursday (10:00am - 12:00pm)
- Thursday (12:00pm - 2:00pm)
- Thursday (2:00pm - 4:00pm)
- Thursday (4:00pm - 6:00pm)

Description

In recent years, the UAB has seen recognition for its efforts in promoting quality in teaching, in attracting international talent and in obtaining a growing impact in research, together with a progressive improvement in its classifications in the most prestigious and influential international rankings. Thus, the UAB is well as occupying an outstanding position among Spanish universities in world rankings such as the QS World University Rankings (QS WUR), the Times Higher Education World University Rankings (THE WUR) and the Academic Ranking of World Universities (ARWU). It also ranks as one of the best young universities according to specific rankings made for universities less than half a century old by QS and Times Higher Education. We are in continuous development of novel inventions in many fields such as IoT, smart technologies, wireless charging and media, among others.

Organization Type

University

Organization Size

Yes, I need an Exhibition Visitor Pass Discount Code

LinkedIn

<https://www.linkedin.com/pub/carlos-raga-camilleri/6a/374/ab7>

Areas of Activities

TECHNOLOGY

1. sensors
2. Internet of things cloud
3. big data
4. apps
5. networks

6. data analysis
7. high technology
8. security
9. emergencies

ENERGY

1. zero carbon
2. ICT

MOBILITY

1. public transportation
2. electric vehicle
3. alternatives energy sources
4. car fleets

SUSTAINABLE CITY

1. water & waste management

Offer & Request

Partner for our technological offers

We are looking for a company willing to acquire a competitive advantage via a license agreement of our technological offers protected by patent.

Please check "Catalogue of Technological Offers" in the following link:

<http://www.uab.cat/web/research/itineraries/innovation-knowledge-transfer-business/tic-1345680744491.html>

Cooperation Offered

1. License agreement

Cooperation Requested

1. Investment/Financing
2. Technical co-operation

Offer

Robust against environmental changes contactless displacement and velocity measurement system

Based on symmetry-related control of the coupling between a sensing element and a planar electromagnetic resonator arrangement, and more particularly to a system where the planar electromagnetic resonator arrangement comprises a plurality of planar electromagnetic resonators arranged in a row.

The invention is particularly applied to the measurements of angular displacements and angular velocities.

INNOVATIVE ASPECTS AND MAIN ADVANTAGES:

- Performs instantaneous velocity measurements, including angular velocity measurements, and high precision relative displacement measurements, including angular displacement measurements.
- Robust against environmental changes
- Practically unlimited rotation speeds can be measured with high accuracy.
- Suitable for low-cost and simple readout systems

Keywords: velocity sensor robust angular measurement rotation speed

Cooperation Offered

1. License agreement

Cooperation Requested

1. Technical co-operation
2. Sales / Distribution
3. Investment/Financing

Offer

Structure for a microphone array with variable configuration for pickup stereophonic sound from 360°

Microphone array with variable configuration supporting a plurality of microphones that can be arranged in different spaced relative positions for pickup stereophonic sound from 360° in a single plane or 3D sound from 360° in any vertical and horizontal direction, allowing a precise localization of the sound source and/or better equalization of registered or reproduced sound, including said microphones an elongated member with a sensitive portion, which captures the sound.

INNOVATIVE ASPECTS AND MAIN ADVANTAGES:

- Provides 3D information of the spatial position of the sound source, which not necessarily should be calculated.
- Structure can be edited in order to reduce or eliminate the sound providing from a concrete region of the surrounding

space.

-Microphone array support can be equipped with different types of microphones depending on the circumstances which can be also place in different orientations being adaptable to many situations.

Keywords: Microphone 3D sound stereophonic array

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Offer

Highly ordered mesoporous high-k dielectric magnesium niobate with high surface area

Detailed synthesis and characterization of the Magnesium niobate has been performed showing the opportunity to modulate and customize the pore size with very high efficiency. In particular the dielectric properties of the material can ben simply tuned operating on the pores size and crystallinity. Test as dopant on piezoelectric PZT (lead Zirconate Titanate) system and the realization of a prototypes is under progress.

INNOVATIVE ASPECTS AND MAIN ADVANTAGES:

High specific surface area (169 m²/g)

Low temperature fabrication

High dielectric constant ($k \sim 25$ at 1 MHz)

Tunable hexagonal pore sizes with unimodal distribution arrangement

High mechanical stability: hardness value of 340 ± 20 MPa and a Young's modulus of 12.5 ± 1.0 Gpa.

Synthesis is fully up-scalable and cost-effective

Keywords: nanotechnology high dielectric migh mechanical stability energy dopant piezoelectric

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1. Technical co-operation
2. Investment/Financing

Offer

Static Complete Fast time Polarimeter

Complete polarimeter composed by two biaxial crystals. This design corresponds to a static polarimeter (without mechanical movements or electrical signal addressing). Only one division of amplitude is required to completely characterize any state of polarization, including partially polarized and unpolarized states.

Download brochure:

<http://www.uab.cat/doc/Static>

INNOVATIVE ASPECTS AND ADVANTAGES:

Static polarimeter

Large data redundancy

Fast time measurements

Complete polarimetric measurements

Easy extendible to any wavelength such as the infrared.

Just one division of amplitude is required

Keywords: Polarimeter biaxial crystal optics measure

Cooperation Offered

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Offer

Wrinkle-Free Graphene Electrode: New way to the design of high efficiency devices

Current methodologies like graphene/PEN (polyethylene naphthalate) stacked as an electrode can improve the efficiency bring about two associated problems: first, and mainly, the low density (~6%) of nanowires that contact the top electrode, and second, the existence of wrinkles on the graphene transferred to the PEN. These two problems result in a large contact resistance. On the other hand, graphene grown by chemical vapor deposition (CVD) impoverishes the properties of these devices by lowering the conductance and increasing their variability.

Download brochure:

<http://www.uab.cat/doc/T-2013-009>

INNOVATIVE ASPECTS AND MAIN ADVANTAGES:

Lowers the electric contact resistance.

Enhance the performance

Provides very homogeneous current distribution along graphene electrode.

Design of high efficiency devices such as uniform transistors, piezoelectric nanogenerators and electrodes in capacitors.

Keywords: nanogenerators graphene electrode

Cooperation Offered

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Offer

Long Read-Range UHF-RFID Tags for Optical Discs (CD, DVD, Blu-Ray)

A new solution for the design of global band UHF-RFID tags to be mounted on optical discs, with read ranges between 3 and 5 m, has been developed. Hence, the main limitation of state-of-the-art tags for optical discs (the short read range) is solved with the present invention.

Download brochure:

<http://www.uab.cat/doc/T-2013-010>

INNOVATIVE ASPECTS AND MAIN ADVANTAGES:

- > Read-range 10 times higher than current solutions (0.35-0.4m vs. 3-5m).
- > Whole UHF-RFID regulated band covered.
- > Simple design and low-cost fabrication.
- > Tag antenna can be directly printed on disc or implemented in inlay.
- > Stacked discs can be read.

Keywords: RFID Optical disc stock control store

Cooperation Offered

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2. Investment/Financing

Offer

Precise portable rescue device for fast avalanche victim localization

Portable rescue device and localization method for locating avalanche victims. It exploits the spatial diversity provided by an array of magnetic vector sensors to improve precision and reduce the time taken for locating the victim.

INNOVATIVE ASPECTS AND MAIN ADVANTAGES:

-Reduces localization time

- ☐- Better sensitivity (signal search)
- ☐- Straighter path (coarse search)
- ☐- Precise location (fine search)
- ☐ -No pinpointing

Keywords: Portable device Emergency Avalanch Detection

Cooperation Offered

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1. Technical co-operation
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Offer

Metamaterial UHF-RFID Near-field Antenna for Retail Applications (adaptable to other applications)

An electric near-field antenna based on metamaterial structures, compatible with far-field tags, has been developed in order to provide a solution to the current limitations. The use of this device at POS allows for a fast checkout and fast inventory process, being all items tagged uniquely with one far-field UHF-RFID tag.

Download brochure: <http://www.uab.cat/doc/Metamaterial>

VIDEO DEMO : <https://www.youtube.com/watch?v=PMHr-fhzHE8>

INNOVATIVE ASPECTS AND MAIN ADVANTAGES:

- Fast checkout: All items read and security disabled simultaneously.
- POS area perfectly defined: only desired items are detected.
- Items labeled with only one far-field, long read-range, tag for all applications (payment, inventory, security).
- Detection for any tag orientation.
- Very low far-field radiation.
- Low-cost fabrication using PCB standard processes.

MARKET APPLICATION:

Retail, shops ...

Can be easily adapted to other applications such as :

- Systems related to stock control where necessary to delimit the region of coverage to avoid detect nearby objects.
- Safety purposes: Target/control where heavy dangerous machinery is needed. Among other applications where the barcode is used.

Keywords: RFID Antenna Retail epayment

Cooperation Offered

1. License agreement
2. Sales / Distribution

Cooperation Requested

1. Technical co-operation
2. Sales / Distribution
3. Investment/Financing

Offer

Device to enhance Wireless Power transmission

Device that is placed near the emitting and/or the receiving coil. It rearranges the magnetic energy in space, leading to an increase of the WPT neither modifying the distance between the emitting and receiving coils nor introducing any material between them (i.e. without modifying the effective distance of free space between emitter and receiver). It has been demonstrated effective at frequencies near the two standards that are being implemented for WPT.

INNOVATIVE ASPECTS AND MAIN ADVANTAGES:

- Simple construction with feasible and cheap commercial materials.
- Does not invade the free space between the emitter and the receiver.
- Suitable for high (>3MHz) and low (200KHz) frequencies.
- Improvement increases as the coils are placed further away
- Experimental tests with commercial coils approved for current standards (e.g : Qi) show improvements up to 220%

MARKET APPLICATION:

Wireless charging (any electronic device in general and smartphones in particular)

Keywords: Wireless power transmission WPT Coil Device

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