Obiettivo 2 = Imprese

Innovation Relay Centre Network

- Cultural Heritage - Catalogue of Technology Opportunities

Cultural Heritage Profiles

I profili qui presentati sono stati selezionati dal database della rete degli Innovation Relay Centre (www.innovationrelay.net), la più importante rete paneuropea a supporto del Trasferimento Tecnologico di cui Veneto Innovazione è il riferimento regionale. Per ulteriori informazioni contattare Veneto Innovazione all'indirizzo irene@venetoinnovazione.it o al numero 041 509 3023.

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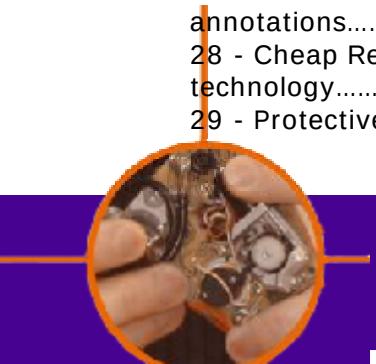


ASSESSMENT, MONITORING AND DIAGNOSIS

Technology Offer

1 - Small-size and low-cost mirror-less lasers for medical, environmental, cultural heritage applications

Reference: 05 IT MESP 0CEX

Country: Italy

Deadline: Thu, March 20, 2008

Abstract:
An Italian research group is patenting a robust, small-size and low-cost lasing element based on Cholesteric Liquid Crystals generating light of different wavelengths over the visible range. They may be manufactured as kit attached to commercial lasers, such as N2 or Nd+3 YAG, to extend the operating wavelengths of the latter. The invention is available for licensing and/or co-production for laser producers or directly for manufacturers of medical, environmental, cultural heritage equipment.

Innovations and advantages of the offer:

Robust, long-lasting behaviour

- Overlapping the whole visible range by discrete spectral lines - Small size and low cost of the lasing element
- Wide applicability in conjunction with bulky Nd+3 YAG and other pulse lasers

Current Stage of Development: Development phase - Laboratory tested
Avaliable prototypes: 10-30mm-diameter glass cells filled with different liquid crystal-dye mixtures

Intellectual Property Rights: Secret know-how - Patent under preparation

Current and Potential Domain of Application: Mirrorless lasers can be applied in any area in which at present Nd+3 YAG and other pulse lasers are used: physics, material science, chemistry, biology. Innovative applications can be found in the medical, environmental and cultural heritage fields

Collaboration Type:
- Technical Co-operation
- License Agreement
- Manufacturing Agreement (Subcontracting & Co-contracting)

Comments
Type of partner sought:
- manufacturers of larger lasers, such as N2 or Nd+3 YAG
- manufacturers of medical, environmental, cultural heritage equipments using laser technolgy

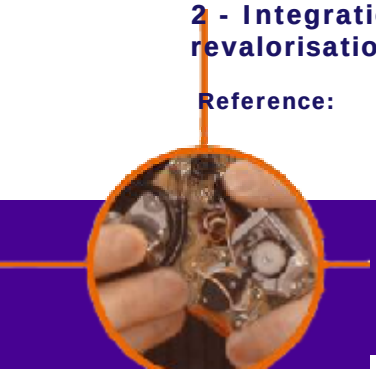
Task to be performed:
- engineering
- co-manufacturing

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=16089&org=000

Technology Offer

2 - Integration of Information Technologies for management and revalorisation of historical surroundings

Reference: 06 ES BCAV 0FHG



Country: Spain

Deadline: Sat, December 01, 2007

Abstract:
A Spanish technological centre in the Basque Country has deep know-how on the application of Web technologies, Database Management Systems, GIS and Virtual Reality in the areas of sustainable management of territory and cultural heritage. Information technologies applied to historical heritage offers an integral treatment of the data that favours a greater knowledge of its problematic in order to allow correct management. Companies and institutions are sought for technical co-operation.

Innovations and advantages of the offer:

- To diagnose and to know the characteristics of a monumental set throughout its whole life cycle.
- To carry out complex analysis of data sets from an integral point of view.
- To operate the information in an effective and suitable way for different users.
- To facilitate the decision making process to owners and managers of heritage.
- To present the information of interest in a dynamic and attractive way, as a means for improving the vision and personal experience of heritage.
- To help the interpretation of the historical surroundings by means of the incorporation of information inside a context.
- To rise awareness and appreciation of heritage among the citizens by means of friendlier applications
- To eliminate both linguistic and physical barriers, allowing the experience of heritage for all, including foreign and disabled people. The main advantage of these information technologies applied to historical heritage refers to the possibility of offering an integral treatment of the data, which favours a greater knowledge of its problematic in order to allow correct management. This information can also be used for dissemination activities, so that better knowledge of the characteristics of the historical heritage can entail socioeconomic revitalisation of these constructed cultural sets.

Current Stage of Development: Available for demonstration - field tested

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application: Database and file management -Education -Leisure and Recreational Products and Services

Collaboration Type:

- Technical Co-operation
- Commercial Agreement with Technical Assistance
- Financial Resources

Comments
- Type of partner sought:
Companies or institutions
- Specific area of activity of the partner:
Managament of cultural heritage,
IT developers and providers

- Task to be performed:
IT companies in the field of cultural heritage are sought for commercialising and distributing the integrated tools in their portfolio.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=20068&org=000

Technology Offer

3 - Expert analysis and evaluation of plastics, packaging and archaeological materials

Reference: 06 GB NMRT 0GO0

Country: United Kingdom

Deadline: Thu, November 15, 2007

Abstract:
This UK laboratory has significant knowledge of analysis and identification of materials covering a wide range of techniques. They have many years experience in understanding the barrier properties of materials and have significant expertise in migration testing. They also possess an in-depth understanding of calibration, and are UKAS accredited. They have been involved in the development of European standards. Collaboration sought with the packaging industry, analytical laboratories & museums.

Innovations and advantages of the offer:

This laboratory has developed a multidisciplinary approach to materials analysis, which has resulted in the development of new tests and the extension of new techniques into the field of packaging.

They have a significant database of materials data, thus they do not always require reference materials.

Their library of NIR spectral data is believed to be unique in Europe.

All materials analysis techniques are available to them, they are not limited by access to equipment or a lack of knowledge in how to use them, allowing tailored and unique combinations of testing to be performed.

Current Stage of Development: Already on the market

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application: Materials evaluation and analysis in:
pharmaceutical, healthcare, food and automotive materials,
waste management, archaeology

Collaboration Type:
- Joint Venture Agreement
- License Agreement
- Joint further development
- Testing of new applications
- Adaptation to specific needs
- Technical consultancy
- Quality control

Comments
- Types of collaboration sought:
Partnerships with organisations working in the area of waste identification and recovery, to add value to the recycling process
Partnerships with museums and other institutions requiring materials identification and access to their spectral library, which is unique in Europe to the best of their knowledge
Partnerships with other laboratories in Europe to further develop European standards and test techniques
Collaborations with packaging suppliers and end users with a need for materials analysis and evaluation, on a routine batch to batch basis or specification development.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=21600&org=000

Technology Offer

4 - Nondestructive acoustic method and device, for the determination of detachments of mural paintings

Reference: 06 IT LADA 0EBL

Country: Italy

Deadline: Fri, December 07, 2007

Abstract:
An Italian research centre developed a portable instrument to detect and measure detachment extension in mural paintings. The invention gives a significant contribution to a very important sector of the cultural heritage conservation (i.e. frescos and mosaic works), where the expertise of the art restoration needs to closely link up with scientific and technical knowledge. The proponents look for technical collaboration with companies able to bring the prototype to an industrial level.

Innovations and advantages of the offer:

At the present the technique most used by the restores for detection of separation zones in frescos is an empiric and very invasive (destructive) one, called “hammer” technique, which amounts to hitting the fresco surface or wall structure surface while listening to the difference in the sound emitted by the same. Among non-destructive scientific techniques, the only one which currently is suited to give some information on the presence of separation zones in frescos, is the so-called "thermovision", which, however, often gives results which are difficult to construe. Moreover, its complex instruments which are not easy to use and its very high cost, considerably limit the use of this technique. Other acoustic techniques, have not reached till now satisfying results (i.e. "ecospectrography"). The proposed acoustic technique uses a different acoustic parameter (the acoustic energy absorption coefficient) as physical indicator of the separation zones and it is a perfectly non-destructive method of analysis of the painting. In fact, the acoustic source used to excite the surface, and the sensor detecting the acoustic signal reflected by the same, are both positioned at an appropriate distance from the fresco, without need to "touch" it, while using acoustic waves of limited amplitude. The new proposed method utilizes an appropriate signal processing system allowing discrimination of the feeble signals indicating the detachment zone, from the other noise. A precise damage definition and measurement before restoration and a successive measurement after restoration of mural paintings and mosaics, is fundamental in order to evaluate the efficiency of treatments used for their protection. The proposed technique seems to comply perfectly with the above requirements, such as to be considered a possible measurement standard in the practice of conservation and safeguard of the mentioned artistic handworks. The present technology is a non-invasive and non-destructive method and device for analysing the separation zones, that is, such as to avoid damage to a work of art.

Current Stage of Development: Available for demonstration - A prototype has been already tested

Intellectual Property Rights: Patent(s) granted

Current and Potential Domain of Application: Cultural heritage; construction restoring and maintenance

Collaboration Type:

-Technical Co-operation, License Agreement
-Manufacturing Agreement (Subcontracting & Co-contracting)
Comments
- Type of partner sought: Industry, local administrations
- Specific area of activity of the partner: Electronics, Maneuvering, Restoration
- Task to be performed: The proponent look for industrial support to reduce the dimension of the present prototype, already portable but still needing supporting structures that make it not so practical to be transported and used. The necessary know-how to obtain the best performances will be provided. Potential partners could be electronic industries or assembling companies. Possible users could be local administrations or restoration companies.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=18561&org=000

Technology Offer

5 - A system for detecting very small changes in force or weight, ideal for protecting valuable display items

Reference: 06 GB SWRD 0G38

Country: United Kingdom

Deadline: Wed, November 29, 2007

Abstract:
A UK SME has patented a system for detecting very small changes in force or weight. The system is currently used to alarm a wide variety of exhibits and displays very discreetly, even during viewing times. The company seeks product application and assembly/installation partners with access to the security devices sector. Other potential applications to be developed by partners may include force-based switching systems and novel games

Innovations and advantages of the offer:
The traditional pressure mat or micro-switch applications used to detect weight change suffer two main limitations. Firstly, the switch or mat contacts are either open or closed, and can only produce one trigger when changing state. If closed, adding more weight will not be detected, if open, removal of additional weight will have no effect. These systems can be fooled by first adding extra weight, before removing an object. Secondly, the reliability of these systems is limited by the mechanical movement required to open or close the contacts.
The new system adjusts automatically to compensate for the dead-loading and monitors only for changes from this datum level. This enables it to detect the removal of numerous items from a display. By detecting both weight increase and decrease, it is not possible to fool the system by adding weight prior to removing anything.
Using piezo components eliminates the need for moving parts, providing a high level of reliability, which has been well-established. The system is simple to install and requires no specialist setting up or adjustment. Most of the systems do not require a site visit and can simply be posted to the customer.
As the detector is specific to the exhibit, it can operate 24 hours a day, even when conventional space or building alarms are off.
The piezo components are small, and the system power consumption very low, allowing the technology to be battery powered.
The system can be easily integrated into a wide range of displays so that it is invisible to the public.
The system is very flexible and can be adapted to a wide range of applications.
The technology can be easily integrated into other security systems.

Current Stage of Development: Already on the market

Intellectual Property Rights: Patents granted in UK and USA.
Additional patents applied for in UK, Europe, and USA.

Current and Potential Domain of Application: Museum security, art gallery security, heritage sites, historic house alarms, exhibition alarms, retail shop security, church alarms, library alarms, artwork alarms, antiques alarms, sculpture alarms, painting alarms, bank alarms, ATMs and safes.

Collaboration Type:
- Joint Venture Agreement
- Testing of new applications
- Adaptation to specific needs
- Assembly , Engineering

Comments
- Type of partner sought: industrial partner
- Specific area of activity of the partner: Experience of delivering solutions to the security sector
- Task to be performed: Light assembly work , System development Logistics.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=20852&org=000

Technology Offer

6 - 3D&Colour representations for documentation, monitoring and duplication of cultural heritage

Reference: 06 ES NWPT 0FP7

Country: Spain

Deadline: Wed, June 25, 2008

Abstract: A Spanish Contract Research Centre, located in Valladolid, has developed tools to display and manage highly accurate 3D&Colour representations of Cultural Heritage through laser scanning and colour measurement (georeferenced when needed). The Laboratory of 3D+Color Digitising involved on these tasks as well as modelling from reality through laser scanners since 1995. The Centre is interested in licence agreement and technical collaboration of any type.

Innovations and advantages of the offer:

Laser scanning and colour acquisition technologies are very innovative, specially in the Cultural Heritage field. These are quicker, more safety and more accurate non-destructive techniques of measurement than conventional ones, bringing new solutions to the following fields: cataloguing and documentation (mainly drafts, elevations and feature extraction, even georreferenced through GIS); monitoring (decay assessment, planning of preventive strategies, and intervention or restoration aiding); low cost duplication for exhibition, or to replace the original in the short term or definitively (because irreversible damages by accidents, vandalism or natural causes); and disclosure (oriented to specialized staff or public in general). Likewise, they allow practitioners to map and browse physicochemical information on 3D scanned elements through termographical superposition.
Scanning and colour acquisition technologies are quicker and more accurate measurement techniques than conventional ones for the study, protection and promotion of the heritage, without physical contact with the objects. It supposes a dramatic upturn compared to building models from scratch using commercial software, being possible to digitise pieces in a range from few millimetres to tens or hundreds of meters.
In addition, once the digital model is obtained, it is unnecessary to physically travel to the site where the model is located (except rescanning for deterioration monitoring, or works evolution checking). This would allow the operator to make new calculations or to extract new characteristics just from his office since the object is conceptualised in a PC.

Current Stage of Development: Available for demonstration

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application: Computer graphics, 3D modelling, simulation technologies, virtual reality, augmented reality, multimedia applications.

Collaboration Type:

License Agreement, Joint further development, Testing of new applications, Adaptation to specific needs

- Type of partner sought: Industry; public organisations.
- Specific area of activity of the partner:
Cultural heritage; stakeholders involved in laser scanning; computer graphics; 3D modelling; simulation technologies; multimedia applications; virtual and augmented reality.
- Task to be performed:
Services for obtaining digital models with colour information from goods of cultural interest.

Application of the technology in his daily activity.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=20347&org=000

Technology Offer

7 - Vibration monitoring and damage assessment of civil structures and buildings

Reference: 06 BE FLIW 0G79

Country: Belgium

Deadline: Fry, October 31, 2007

Abstract:
A Belgian research group has developed a methodology that significantly improves health monitoring and vibration based damage assessment of civil engineering structures and buildings. The technique relies on finite element modelling and updating. The research group is looking for technical collaboration with public and private agencies, as well as software companies, in order to fine-tune the technology or with software vendors to bring the technology to the market.

Innovations and advantages of the offer:

Innovative results were obtained in following sub-domains: a) Novel system identification algorithms in case of stochastic (ambient) and hybrid stochastic-deterministic excitation; implementation in user friendly Matlab toolboxes. b) Powerful finite element updating methodologies based on state-of-the-art optimisation algorithms; development of a new global optimisation scheme. c) Efficient and accurate algorithms for fuzzy analysis of static and dynamic, linear and non-linear structures based on adaptive optimisation.

Early damage detection and location allows maintenance and repair works to structures to be properly programmed. This minimises not only the annual costs of repair (e.g. for bridges estimated at 1, 5% of their value) but also avoids a long out of use time which can represent an even higher economic cost (e.g. traffic delay due to major bridge repair). Vibration based damage assessment is a non-destructive technique. Moreover, it is a global detection method, i.e. the place of the damage has not to be known on beforehand. Besides the potential localisation and quantification of damage, the vibration testing technology delivers the dynamic structural characteristics. The precise knowledge of these characteristics is essential, not only when structural integrity is of concern but also when an excessive level of vibration can cause malfunctioning, disturbance or discomfort of components or assemblies

Current Stage of Development: Available for demonstration - field tested

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application: Services for civil and mechanical engineering; health monitoring of civil structures and buildings

Collaboration Type:
- Joint further development
- Testing of new applications
- Adaptation to specific needs

Comments
- Type of partner sought:
Public and private agencies or industries, software companies- Specific area of activity of the partner:Civil engineering, health monitoring of structures and cultural heritage, vibration measurements and mitigation; vibration damage risk; human exposure to vibrations.
- Task to be performed:
Benchmarking and finetuning of the technology, turn it to software :

potential partners can benefit from the expertise on structural mechanics (dynamics) of the research group.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=20997&org=000

Technology Offer

8 - A microwave device for detecting moisture and salt content in frescoes and walls

Reference: 06 IT TUFT 0G7O

Country: Italy

Deadline: Thu, May 15, 2008

Abstract:
An Italian research group of an Institute of Applied Physics has developed a microwave sensor and an instrument for the diagnostics of frescoes and bare walls. The instrument is capable of measuring the sub-superficial moisture content, and allows detecting the presence of soluble salts in a wall up to a depth of about 2 cm. The group is looking for companies interested in industrial implementation of the device.

Innovations and advantages of the offer:

- SUSI allows sub-surface moisture content to be detected and quantified, whilst other conventional methods based on infrared radiation are superficial.
- It allows detecting the presence of soluble salts, an almost unique feature of SUSI.
- The sensor is composed of two sections, (1) a coaxial probe and (2) a microstrip cavity. The two parts can be easily and independently substituted: (1) can be substituted to investigate larger or smaller regions; (2) can be changed to operate in a different frequency range.
- The sensor probe is equipped with a "spring" contact, making the measurement reliable and not influenced by the presence of air between probe and wall.

Current Stage of Development: Available for demonstration - field tested

Intellectual Property Rights: Italian Patent granted

European Patend applied for

Current and Potential Domain of Application: The prototype has been set up in the Italian research group, and tested on laboratory samples and on actual frescoes in cooperation with the restorers of another Italian research institute focused on restoring artistic works.

Collaboration Type:

- Joint further development
- Testing of new applications
- Assembly
- Engineering
- Technical consultancy
- Quality control

Comments
Type of partner sought: Industrial partners interested in developing and commercialising the product.

Task to be performed: Development of an engineered version of the instrument. Technical consultancy about the miniaturisation of the microwave analyser.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=21012&org=000

Technology Offer

9 - Compact Alarm System for Works of Art, Books or Furniture

Reference: FD1103FAG

Country: Germany

Deadline: Thu, November 09, 2007

Abstract:
A small German SME has developed a wireless alarm system for works of art, books, furniture, etc. The central element is a plug that works as an minimised alarm device and is able to protect many different objects of value. The device is smaller than a packet of cigarettes, easy to hide, and cannot be removed without activating the alarm. The company is looking for industrial partners interested in further development

Innovations and advantages of the offer:

- Small and easy to hide
- Perfect security
- Minimal power consumption
- State-of-the-art protection against manipulation
- Low-cost device
- Excellent, non-visible security system for nearly all objects of value
- Modular system
- Mobile use
- Alarm signal can be transferred to any stationary or mobile control system (e.g. mobile phone)

Current Stage of Development: Available for demonstration

Intellectual Property Rights: Patent(s) granted

Current and Potential Domain of Application:

- Alarm system
- Protection of objects of value
- Hardware protection

Collaboration Type:

-License Agreement
-Joint further development
-Testing of new applications
-Adaptation to specific needs

Comments
- Type of partner sought:
Industry

- Specific area of activity of the partner:
Manufacturer and/or distributer of alarm systems

- Task to be performed:
Analyse market, perform appropriate modifications, commercialisation

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=12104&org=000

Technology Offer

10 - Mass distribution detector in development for earthquakes and mining crumps prevision

Reference: 05 PL SPUS 0C1A

Country: Poland

Deadline: Thu, January 31, 2008

Abstract:
A Polish firm's appliance for monitoring of mass distribution in development is resistant to seismic influence and useful in prevision of mining crumps and earthquakes, permanent monitoring of underground gas storages and detection of underground constructions. It works as a highly sensitive accelerometer with a high range of measurement. Other constructions of gravimeters are expensive and not resistant to seismic influence. Partners: area of geology or earth reactions monitoring and mining.

Innovations and advantages of the offer:

- Quantum resolution without using cryogenic environment for sensor
- Possibility of using proof mass in a wide range of temperatures
- Proof mass can work in three-axis sensitivity
- Measurements in a wide range of amplitudes and frequencies
- Reduction of energy consumption after elimination of cryogenic environment
- Mass and shape reduction of proof mass
- Wide-range measurement of acceleration
- Resistance to external conditions
- High sensitivity in gravity scale of the current model, occasionally better than the best gravimeters
- Running reliability

Current Stage of Development: Available for demonstration - field tested

Intellectual Property Rights: Patent(s) granted

Current and Potential Domain of Application:
Mining crumps and earthquakes prevision;
Permanent monitoring of underground gas storages;
Construction industry;
Archeology.

Collaboration Type:
-Joint Venture Agreement
-License Agreement
-Financial Resources

Comments
- Partners souhgt: institutions from the area of geology or earth reactions monitoring and mining enterprises.
The technology is up for joint further development.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=15598&org=000

Technology Request

11 - Device for digital radiography (200kV/3mA) of three-dimensional works of art in view of their documentation/restoration

Reference: 07 BE BIRC 0HT9

Country: Belgium

Deadline: Tue, April 15, 2008

Abstract:
A Belgian federal scientific institution looks for a fully digital X-ray radiography system (200 kV/3mA) for examining & studying large and small works of art in wood, metal and stone in view of their documentation/restoration. Image resolution should be at least equal to those of the currently used film-based X-ray system. The institution would like to find out whether such a system already exists in the cultural heritage, medical or industrial sectors.

Technical Specifications / Specific technical requirements of the request:

Digital X-ray radiography unit:

- 200 kV/3mA X-ray power source
- Exit angle of X-ray beam: 40-50 degrees.
- Minimum size of focal plane array: 30 x 40 cm
- Focal plane array that can be placed in close contact with art object both vertically and horizontally.
- Two positions for x-ray source:
- Source pointing vertically downwards, at 1m distance from object
- Source pointing horizontally, at variable distance from object
- Exposure times: between 1 and 8 minutes
- Safety: system remotely operable from outside lead-lined room
- Images directly visible via computer screen outside lead-lined room
- 254 dpi for printing
- Dimensions of sample area: 10 cm to 2 m

Current and Potential Domain of Application:

X-ray radiography of works of art (objects in wood, stone and metal).
The X-ray radiography of works of art serves a two-fold purpose:
- It establishes the original structure and material history of a work of art by bringing into light the transformations undergone by the object, etc.
- It helps to reveal the true condition of a work of art and as such is often paramount in establishing a suitable course of conservation treatment.

Collaboration Type:

- Joint further development
- Testing of new applications
- Adaptation to specific needs
- Technical consultancy
- Quality control
- Maintenance

Comments
- Type of partner sought: Public institution or private company.

- Task to be performed: The requested partner should either provide the institute with a X-ray digital radiography device for analysis of large and small objects in metal, stone and wood, or alternatively help the institute to adapt an approaching technology to its specific needs.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=23085&org=000

Technology Request

12 - Portable device for digital radiography (50kV/20mA) of paintings and works of arts in view of their documentation/restoration

Reference: 07 BE BIRC 0HT8

Country: Belgium

Deadline: Tue, April 15, 2008

Abstract:
A Belgian federal scientific institution would like to replace its portable, film-based, 50 Kv/20 mA radiography system for the examination and study of works of art (paintings and objects) with a fully digital system, with no loss of image resolution. Portability remains a key requirement, as the system would be used for documentation of works of art in various museums. The institution would like to find out whether such a system already exists in the heritage, medical or industrial sectors.

Technical Specifications / Specific technical requirements of the request:

Digital radiography unit:

- 50kV/20mA X-ray power source
- Exit angle of X-ray beam: 40-50 degrees.
- Minimum size of focal plane array: 30 x 40 cm.
- Focal plane array that can be placed in close contact with art object both vertically and horizontally.
- Three positions for X-ray source:
- Source pointing vertically downwards, approx. 1 meter above object
- Source pointing vertically upwards, approx. 1 meter below object (might require a detachable X-ray source)
- Source pointing horizontally, between 1 and 6 meters in front of object.
- Exposure times: between 5 seconds and 5 minutes
- Safety: system operable at a safe distance of at least 5 meters, from behind a wall
- Transportable in a van
- Not affected by the normal vibrations of road transport
- Movable by 2 people.
- Set-up time of not more than half an hour
- Images directly visible via computer screen
- 254 dpi for printing
- Sample area dimensions: 20 cm to 5 m

Current and Potential Domain of Application:

X-ray radiography of works of art (canvas and panel paintings, objects in wood and glass).
The X-ray radiography of works of art serves a two-fold purpose:
- It establishes the original structure and material history of a work of art by bringing into light the transformations undergone by the object, etc.
- It helps to reveal the true condition of a work of art and as such is often paramount in establishing a suitable course of conservation treatment.

Collaboration Type:

- Joint further development
- Testing of new applications
- Adaptation to specific needs
- Technical consultancy
- Quality control , Maintenance

Comments
- Task to be performed: The requested partner should either provide the institute with a X-ray digital radiography device for analysis of paintings and small objects, or alternatively help the institute to adapt an approaching technology to its specific needs.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=23084&org=000

CONSERVATION TECHNIQUES AND MATERIALS

Technology Offer

13 - Restoration system of three-dimensional art objects with lost parts

Reference: 06 ES BCAV 0FG2

Country: Spain

Deadline: Fri, November 30, 2007

Abstract:
The Conservation-Restoration Section of the Paintings Department of a Basque university in Spain offers a combined and reversible system of joint for art works with lost parts. The use of this system allows the reinstatement of the lost volumes in the art works that recover their original outer appearance without damaging or changing the structure. It can be used on a wide variety of art works. A commercial agreement with technical assistance is sought.

Innovations and advantages of the offer:

It is an original system in the conservation-restoration field. It differs from the conventional ones in that it does not affect to the integrity of the work as it doesn't need either physical or mechanical reinforcements or the use of glues. The conventional systems employed until now do not allow the change of the reproduced parts in an easy and immediate way. On the other hand, with this new system the reproduced pieces can be changed and removed without any risk for the art work. Museums, art galleries, cultural centre and in general any institution related to the Cultural Heritage have to face many times the restoration and reinstatement of artistic works with lost parts. This system is efficient and cheap and in comparison to the ones used to the present time it implies an improvement in many aspects:

- Less time work and use costs as well as more stability for the art work.

- It also has the advantage of getting reproduced detachable pieces with different outer finishes; imitative-realistic, neutral, semi-realistic, and change or combine them depending on the location and the significance that want to express the work

Current Stage of Development: Available for demonstration - field tested

Intellectual Property Rights: Patent(s) granted

Current and Potential Domain of Application: Other construction and building products related

Collaboration Type: -Commercial Agreement with Technical Assistance

Comments
- Type of partner sought:
National and international businesses in relation to the Cultural Heritage, as for example, museums, art galleries and art conservation-restoration institutions.
- Specific area of activity of the partner:
Cultural dissemination, art exhibitions.

- Task to be performed:
They are looking for partners interested in a commercial agreement with technical assistance. They offer technical consultancy and technical training to adapt the restoration system to specific features of each art work. Both material and staff costs for the partner will be minimum

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=20018&org=000

Technology Offer

14 - Innovative and traditional air-conditioning systems

Reference: 05 IT SUUN 0DDN

Country: Italy

Deadline: Fri, October 12, 2007

Abstract:
A university research group in the south of Italy, working on air-conditioning systems, has developed innovative air-conditioning systems and improved traditional ones. These are used for indoor thermal comfort and/or for conservation of cultural heritage. These systems increase thermal performance of building envelope, particularly as regards condensation risks in exterior walls. The group is searching for financial resources and technical cooperation for adaptation to specific needs.

Innovations and advantages of the offer:

The main innovative characteristic of the approach consists of considering adsorption and absorption dehumidification of the air instead of the traditional dehumidification by cooling coil. This allows better control of ambient humidity and also energy saving, mainly in the presence of high latent loads. Humidity control is really important in some applications, such as conservation of cultural heritage; moreover, the innovative technology allows significant energy saving in supermarkets.

Regarding thermal and hygrometric analysis of the building envelope, the main innovative aspect is the capacity in avoiding relative humidity levels higher than 80% on the walls, according to the new international standards. This allows the absence of mould in exterior walls.

Optimisation of energy consumption and thermal performance analysis are obtained from these innovative features.

In addition, adaptation of the technology in real cases can take advantage from the long experience of the research group in the field of air conditioning and thermal analysis of building envelope.

Current Stage of Development: Already on the market

Intellectual Property Rights: Secret know-how

Collaboration Type:

- Financial Resources
- Adaptation to specific needs

Comments
- Type of partner sought:
* Industry
* Research centre
* University
* Institution for cultural heritage

- Specific area of activity of the partner:
* Retail
* Scientific research
* Museums

- Task to be performed:
The partner should be able to customise the technology to the specific needs of the clients.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=17339&org=000

Technology Offer

15 - Product for cleaning titanium surfaces in situ

Reference: 06 ES BCAV 0FG3

Country: Spain

Deadline: Fri, November 30, 2007

Abstract:
A Basque Technological Centre has developed foam to clean titanium. It is a proven product with unique patented attributes that delivers unprecedented metal restoration and cleaning performance, especially when applied in-situ. The foam is applicable to architectural, aerospace, household, medical, sport gear. Partners are sought for license or commercial agreements with technical assistance

Innovations and advantages of the offer:

TICAP Foam is the only safe, effective, efficient, economical and environmentally friendly product available today for restoring and cleaning titanium surfaces without altering their surface appearance or characteristics. It is especially easy to apply in situ, with minimal site intrusion and clean up. Safe & Effective: TICAP preserves titanium's appeal. Without modifying the corrosion resistance, finish or brightness of the base surface, it restores the original lustre and beauty marred by dirtiness or oxidation. It is equally suitable for polished surfaces with aesthetic requirements and/or delicate finished parts. Efficient: TICAP is quick and reaches hard to access places with ease. It is applied rapidly in situ by spray gun over wide areas of simple or complex shapes. Its foam sticks to the surface to avoid the waste as well as uncontrolled splatter, dribble and/or streaking of other treatments. In just one to five minutes the foam is removed and the surface water-rinsed, leaving a fully restored surface with minimal site intrusion. Economical: TICAP's core cost elements are very low. Its ingredients are readily available and inexpensive, costing roughly 0, 1 €/m2. Its associated labour costs are low, requiring a single person with minimal training. Its greatly reduces the high waste levels of liquid sprays or dump baths. Environmentally friendly: TICAP has minimal environmental impact. Its patented process immediately and automatically neutralises the ingredients in situ

Current Stage of Development: Available for demonstration - field tested

Intellectual Property Rights: Patent(s) applied for but not yet granted - Guggenheim Museum Bilbao has included this solution in its maintenance routine which has been patented by this cultural organization in association with INASMET

Current and Potential Domain of Application: Speciality metals (including processes for working with metals)

Collaboration Type:

- Technical Co-operation
- License Agreement
- Commercial Agreement with Technical Assistance

Comments
- Type of partner sought:Industry
-Specific area of activity of the partner: Companies dedicated to metal restoration and manufacturers of cleaning and chemical products
- Task to be performed:Partners for technical cooperation agreements are sought for adapting the product to restore other kinds of metals apart from titanium and testing the product in different weather conditions.
Manufactures of cleaning and chemical products are sought to license the product. INASMET could provide engineering and technical consultancy to adapt partners manufacturing process to produce the foam.
In the case of commercial agreement with technical assistance, INASMET could provide small amounts of the foam adapted to partners requirements and technical training to teach how to apply the product

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=20019&org=000

Technology Offer

16 - Innovative microwaves technology for restoration and pest control in wooden immovable structures

Reference: 07 IT SUTC 0H94

Country: Italy

Deadline: Thu, February 14, 2008

Abstract:
An Italian SME developed a mobile microwaves device for pest control of wood. It is the first full optional industrial system coming from the most advanced Italian scientific and industrial research in the field of pest control. The system substitutes chemicals (mainly methyl bromide) having similar effects, without causing danger either for health or for environment. The SME is interested in commercial agreements with technical assistance with companies distributing systems for pest control.

Innovations and advantages of the offer:

The system is the first full optional industrial mobile microwaves device, replacing the dangerous chemicals commonly used for pest control. It ensures:

- 100% pest lethality
- Very short treatment time with comparison to other methods
- Very easy treatment conditions for both the premises residents and the pest control operators
- Electromagnetic safety
- No need of pre-treatment preparation, nor post-treatment work
- Logic controller with simple and intuitive man-machine interface

The method is completely safe and does not produce pollution. The machinery can be installed in a few minutes thanks to rapid joint electric connectors, with different layouts according to the client's needs. It ensures excellent concentration of electromagnetic field, thus allowing optimal heating uniformity in the material, which results in very fast and safe pest control treatment.

Current Stage of Development: Available for demonstration - field tested

Intellectual Property Rights: Patent(s) applied for but not yet granted

Current and Potential Domain of Application: The system is useful for pest control of fixed wooden structures.

Collaboration Type:

- Technical consultancy
- Maintenance

Comments

- Type of partner sought: Companies.

- Specific area of activity of the partner: Distribution or use of systems for pest control.

- Task to be performed: The company sought should distribute the system, ensuring technical assistance and training. The developer would transfer the needed know-how for the operation of the system.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=22360&org=000

Technology Request

17 - Improvement of software for digital restoration of degraded texts using multi-spectral imaging

Reference: 06 IT MESP 0GIM

Country: Italy

Deadline: Fri, October 26, 2007

Abstract:
A small Italian company delivering services in the cultural heritage sector is interested in improving a set of techniques for digitisation and virtual restoration of degraded texts, and incorporating them into a full-featured application. The company is looking for industrial and research partners working on multi-spectral imaging, digital image enhancement, dictionary creation, and automatic keywords extraction for technical cooperation.

Technical Specifications / Specific technical requirements of the request:

Partners are sought to pursue the following enhancements:

- Construction and integration of special dictionaries for restoration of lost word fragments from ancient languages (e.g. Latin, modern languages from previous centuries, etc.)
- Extraction of keywords and other features for classification and archiving of digital documents
- More advanced and integrated multimedia and Web-based presentation of restored texts

Current and Potential Domain of Application:

Virtual restoration of damaged texts is a concern of major public and private institutions, to preserve the documents while allowing public access (national libraries, museums and private collections, governmental bodies).

Much of this digitisation work is performed by SME subcontractors.

The proposed technique can be used to improve the quality of the digitised texts by recovering damaged or hidden characters and pieces of text.

Collaboration Type:

- Joint further development
- Adaptation to specific needs

Comments
The company is looking for: Academic partners to further improve on the current usage of multispectral techniques, dictionary construction, texts classification
Industrial partners to drive the implementation of a full-featured prototype and, in particular, to improve on the multimedia characteristics of the system

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=21406&org=000

MANAGEMENT, PROMOTION AND FRUITION

Technology Offer

18 - Custom Virtual and Augmented Reality applications

Reference: 06 IT MESP 0EQS

Country: Italy

Deadline: Thu, February 28, 2008

Abstract:
A group of researcher from an Italian university has a large experience with software technologies for Virtual and Augmented Reality (V&AR). The group is able to overcome problems related to data exchange, hardware integration, and display configuration with most known software development tools for V&AR. They are looking for technical cooperation with other research groups and with companies interested in V&AR applications

Innovations and advantages of the offer:

- Integration of different systems for V&AR, computer graphics, scientific visualisation and 3D interaction
- Easy set-up of complex V&AR systems
- Advanced modelling of physical objects
- Realistic interaction within simulated environment In a virtual reality environment it is possible to interact in a more natural way with data, digital products, reconstruction of archaeological sites, etc.

All the physical property of the environment (e.g.: weight, friction, cinematic joints, etc.) can be simulated. The visual quality is improved by many innovative effects like dynamic shadows and reflections, smoke, and all the most recent CG (Computer Graphics) techniques.

Thanks to special devices, users find themselves in a simulated environment in which, through advanced visualisation and interaction mechanisms, they can perceive the depth of the scene, having at the same time the possibility of interacting with the virtual objects by their hands. Such interaction is possible thanks to the use of special gloves, which have sensors able to detect the bending of one's fingers. By supplying the gloves with tracking sensors able to reveal position and orientation, it is possible to reconstruct the movements of the user's hands in a virtual environment; this way the user may carry out several types of simulations connected to the interaction with the product

Current Stage of Development: Available for demonstration

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application:
- Automotive and industrial sector
- Education
- Entertainment
- Cultural heritage

Collaboration Type:
-Technical Co-operation
-Joint Venture Agreement
-Commercial Agreement with Technical Assistance

Comments
- Type of partner sought:
* End users interested in the development of custom V&AR applications
* Technical partners interested in joint development
* Research partners interested in further cooperation

Technical cooperation and assistance may include technical consultancy and technical training, engineering of prototypes and applications

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=19108&org=000

Technology Offer

19 - Augmented Reality for the diffusion, promotion and learning of Cultural Heritage

Reference: 06 ES BCAV 0FG4

Country: Spain

Deadline: Wed, November 21, 2007

Abstract:
A Basque technological centre in Spain offers know-how and expertise in the use of Augmented Reality for Cultural Heritage applications. The technology provides a high degree of realism, due to the combination between reality and virtual information, and information that cannot be caught by the senses. Hence, Augmented Reality make cultural heritage more appealing for visitors. A company or institution is sought for technical cooperation and commercial agreement with technical assistance

Innovations and advantages of the offer:

Some of the main innovating aspects of this technology for the creation of applications or tools for the diffusion of cultural heritage are the following ones:

- Dynamic and attractive presentation of the information, as a tool for improvement of the understanding of information.

- Provides a high degree of realism, due to the combination between reality and virtual information.

- Provides help for interpretation of the environment, including information that cannot be caught by the senses.

- Approach to the patrimony to groups that traditionally are not interested in cultural heritage (children, adolescent, etc.), facilitating its approach in an interactive and fascinating way.

- Eliminates barriers, like language, that the tourist traditionally finds when he arrives to a foreign country. The main advantage of Augmented Reality technologies applied to the diffusion and preservation of cultural heritage is in the capacity of applications that use these technologies to attract visitors to the tourist environment. In this way, an increase of the income generated by the proprietary resource is obtained. At the end cultural heritage will become an economic resource that acts as a tractor element of its region, instead of an economic load

Current Stage of Development: Available for demonstration - field tested

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application: Education

Leisure and Recreational Products and Services

Collaboration Type:
-Technical Co-operation
-Commercial Agreement with Technical Assistance
-Financial Resources

Comments
- Type of partner sought: Companies, institutions.

- Specific area of activity of the partner: Promotion and conservation of cultural heritage.
Developers of technologies for conservation and promotion of cultural heritage and learning programs.

- Task to be performed: The technological centre offers know-how to analyse and develop the best option to apply augmented reality

technologies to each specific case both companies and institutions

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=20020&org=000

Technology Offer

20 - Digitised Book Scanner

Reference: 06 HU HUTP 0G07

Country: Hungary

Deadline: Wed, November 15, 2007

Abstract:
A Hungarian SME has invented and patented a new digitised method of scanning books. Scanning is possible by the opening of books to a 45-degree angle only. There is no damage to the book's spine and distortion of pages is eliminated with this procedure. Luminosity and colour fidelity do not depend on outer light as the closed optical system provides direct and even exposure of the pages. The SME is looking for a partner to develop a prototype and later provide the manufacturing of scanners

Innovations and advantages of the offer:

Overcomes the following main problems of scanning:

- Defects in binding or spine arising from opening the book
- Uneven luminosity and colour fidelity depending on outer light
- Shadow or blind zones appearing at the spine
- Non-linear distortion appearing at the spine
- There are no defects at the spine as books are opened to a 45-degree angle only
- Luminosity and colour fidelity do not depend on outer light, as the closed optical system provides direct and even exposure of the pages
- There are no shadows or blind zones appearing at the spine as the optical system within the wedge shape illuminates and scans the centre of the pages to the same extent as the rest of the page.
- There is no distortion at the spine as the wedge shape optical system placed between the pages completely covers the pages of the book

Current Stage of Development: Development phase - Laboratory tested

Intellectual Property Rights: Patent(s) granted

Current and Potential Domain of Application: Increasing cost of storage and preservation of books: in the U.S. alone more than 117,000 libraries are planning to digitise their books. As an additional advantage, it is making it possible for schools, universities, hospitals, etc to access books

Collaboration Type:

- Joint further development
- Adaptation to specific needs

Comments
- Type of partner sought: industry

- Specific area of activity of the partner:
manufacturing electronic equipments

- Task to be performed:
develop and manufacture prototype; provide further manufacturing

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=20743&org=000

Technology Offer

21 - Interactive Multimedia Plastic Model

Reference: 07 IT IRCT 0H7U

Country: Italy

Deadline: Tue, February 12, 2008

Abstract:
A small Italian communication company has developed an interactive multimedia system projected onto a three-dimensional plastic model suitable for museums or scientific exhibitions. This method offers a more group-oriented communication than conventional models, with greater emotive involvement. The company is looking for a partner for production of advanced communication systems (museums, scientific organisations, exhibition and event organisers and museum exhibition designers).

Innovations and advantages of the offer:

The innovative aspect consists of the creation of an interactive communication language that brings together different technologies - some of which already existing - in a harmonious, coordinated and extremely involving ensemble.

The digital technology used enables the management of widely differing applications in terms of both content and target user.

The technology allows the communication of a considerable quantity of information in a relatively small space, while offering greater user involvement than possible with conventional showing methods, equating to significant cost savings.

Current Stage of Development: Already on the market

Intellectual Property Rights: No intellectual property rights are formally registered.

Current and Potential Domain of Application: Museum design projects, event and exhibition management, museum, scientific and natural history exhibitions.

Collaboration Type:

- Joint Venture Agreement
- Joint further development
- Testing of new applications
- Adaptation to specific needs
- Assembly
- Engineering
- Technical consultancy
- Quality control
- Maintenance

Comments
- Type of partner sought:
Museums, museum exhibition designers, event and exhibition management companies.

- Specific area of activity of the partner:
Exhibition device manufacturers, three-dimensional plastics manufacturers, multimedia solution providers.

- Task to be performed:
Cooperation in museum projects or exhibit realisation.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=22314&org=000

Technology Offer

22 - Robot acting as a guide in cultural areas

Reference: 05 IT MECR 0DQ3

Country: Italy

Deadline: Tue, November 06, 2007

Abstract:
A laboratory for robotics of an Italian university has developed software architecture for autonomous robots able to guide people in public sites like museums & cultural areas. The robot is mobile and autonomous; it recognises the environments in which it is by its own sensors. It can interact with tourists in several ways. The robot moves indoors. The research group is looking for technical collaboration to develop missing software items to solve problems related to the robot outdoor movements

Innovations and advantages of the offer:

Innovation features distinguishing the robot:

- Automatic reasoning that makes the robot able to both perceive and act
- High-level knowledge functions allowing reasoning about targets, actions, knowledge perception and acquisition, knowledge states of other agents, time, co-ordinate execution, learning and 3-D vision
- Integration of reasoning, perception, learning and action The robot is able to guide persons in public sites like both museums and cultural areas. The robot, due to its mobility and autonomy is able to recognise the environment in which it is by its own sensors (cameras, laser, sonar).

The robot is able to interact with tourists in different ways

Current Stage of Development: Available for demonstration

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application: This technology can also be applied in other fields, like, e.g., bank, airport, hospital surveillance, pointing out any anomalous situation by either connecting to security or signalling directly to Police

Collaboration Type: - Technical Co-operation

Comments
- Type of partner sought:
industry or research institute/university
- Specific area of activity of the partner:
software development and robotics

- Task to be performed:
Further development of the existing software with the technical assistance of the laboratory for the requested new features of the robot: capability to move through an open space or in a different environment

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=17787&org=000

Technology Offer

23 - Innovative system applied on audio guides used in open spaces

Reference: 05 IT LOCM 0CO5

Country: Italy

Deadline: Sun, December 31, 2006

Abstract:
An Italian SME is offering a new technology applied on special multimedia audio-video visit guides, developed for assisting and guiding the visitor wherever he wishes in complete freedom within open spaces. When the visitor runs into a relevant item the guide provides audio-visual information adapted to all users. The company is looking for co-operation with parks, archaeological and naturalistic sites managing organisations

Innovations and advantages of the offer:

The technology offered is particularly innovative as the tool doesn't need a permanent network or system or any power supply; it does rely on maps or pointers and the user doesn't have to dial any code.

The audio-visual guide can be activated anywhere and works in all weather conditions.

Moreover, the tool can display different levels of content and is available to impaired people. Provision of a portable audio/visit guide designed specifically for open spaces.

Technology offered allows the achievement of the following goals:

- Add value to the place through application of new and user-friendly tools

- Facilitate the dissemination of environmentally friendly attitudes among the people in drawing attention on naturalistic sites;

- Improve the enjoyment degree to artistic, naturalistic and historical areas for impaired people

Current Stage of Development: Already on the market

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application: Mobile communications, pagers and cellular radio

Media related services

Collaboration Type:
- License Agreement
- Commercial Agreement with Technical Assistance

Comments
- Type of partner sought:
Local authorities, foundations and organisations managing parks, botanic gardens, archaeological and naturalistic sites.

- Specific area of activity of the partner:
Management of naturalistic and historical sites.

- Task to be performed: Application of the technology offered. Technical support will imply technical consultancy and training and maintenance

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=16421&org=000

Technology Offer

24 - Wireless Information Network for Tourist and Environmental Routing

Reference: 07 IT MESP 0H9R

Country: Italy

Deadline: Thu, February 14, 2008

Abstract:
An Italian IT company presents a wireless tourist and environmental guide capable of delivering multimedia contents, geo-referenced maps, up-to-date information and targeted messages. The system integrates wireless technologies, global/local positioning (GPS, IrDA), and portable terminals (PDA) to support virtual and guided visits. The company is looking for partners, primarily associations and consortia, in tourism and commerce, for commercial agreements with technical assistance.

Innovations and advantages of the offer:

- State-of-the-art technologies:
- Multimedia information (text, images, audio, video).
- Networking technologies (wireless, xDSL).
- Global and local positioning (GPS, IrDA).
- Traditional and portable terminals (PDA).
- Multilingual support.
- User profiling to tailor the information delivered according to various parameters (time available, themes, main cultural interests, etc.).
- Possibility to deliver targeted information (emergency, commercial, etc.) for specified areas and users profiles.
- Unique device to cover wide areas with different types of information (cultural, recreational, etc.).

Current Stage of Development: Available for demonstration - field tested

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application: The system is very effective for culturally and/or environmentally rich areas.

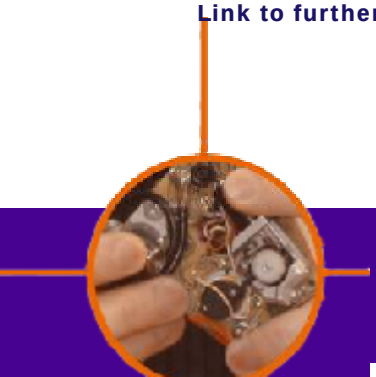
The architecture based on a Central Repository that is able to deliver any kind of information and interact with the portable terminals (PDA) may also yield to new personalised services.

Collaboration Type:

- Testing of new applications
- Adaptation to specific needs
- Engineering
- Technical consultancy
- Quality control
- Maintenance

Comments
The company is looking for partners commercially oriented, mainly in the touristic sector, and for associations/consortia interested to the promotion of cultural and environmental resources.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=22383&org=000



Technology Offer

25 - GPS-WiFi multimedia and mobile guide for art cities

Reference: 06 IT IREN 0GNE

Country: Italy

Deadline: Thu, November 08, 2007

Abstract:
An Italian company developed the first multimedia guide for the city of Florence with a GPS system. It is distributed in information points for tourists and hotels. Through the GPS system tourist can follow the itinerary proposed directly on the map and play multimedia contents which refers to interest points grouped in categories (restaurants, museums, transports, etc.). The company is looking for collaborations and financial support from private and public institutions interested.

Innovations and advantages of the offer:

In order to gauge customers' satisfaction level and to identify areas for further improvement, we developed a back-office component used to collect statistics on users' main actions and movements. This information is stored as special click stream data that are records of what users clicked and visited in the city while carrying the device. According to the click stream, less viewed items can be modified and presented in a more attractive way, or simply they can be dropped from the available options when their overall interest seems too low.

The presence of GPS gives to the users the opportunity to build personalised paths. Thanks to the feature of sensing the users' position, the system can be seen as a location-aware device. Indeed, it can locate the user on high detailed cartography through GPS, by tracking his movements and keeping the map centered on his position. It can help in reaching places by building and showing the path from the actual position retrieved by the GPS. It can also automatically show contents related to places of interest for the user and can suggest other places in the nearby of the traced path.

Current Stage of Development: Already on the market

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application: The best market strategy towards the end users is to intercept tourists when they arrive in the city. Another good option is to build partnerships with companies already working in the tourist sector, like hotels or tour operators; it is particularly advisable to offer the multimedia system inside packets of services sold by these operators.

Collaboration Type:
- Financial Resources
- Engineering
- Technical consultancy

Comments
•Type of partner sought: Partnership for distributing Arianna in other cities
•Specific area of activity of the partner: Tourism
•Task to be performed: To get a larger distribution of the product.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=21578&org=000

Technology Offer

26 - Software for the integration of documents located within database of libraries and cultural institutes

Reference: 07 IT TUPR 0H5E

Country: Italy

Deadline: Sun, January 20, 2008

Abstract:
An Italian ICT company has developed software for the integration of documents that are located within database of libraries and cultural institutes. The tool is able to research and visualise the images and the corresponding transcriptions by using web technologies at both levels, intranet and internet. The company is looking for a commercial agreement with technical assistance.

Innovations and advantages of the offer:

This software operates as an instrument that is able to catalogue items that have not been filed; this particular innovative aspect permits the unification of those documents that are not homogeneous each other (referring to documents such as books, manifests, manuscripts, letters, invoices, photographs, etc) and without any standard reference available on the market. There is also a function that is able to follow each request of consultation, in particular: book marking, functions of search, export, print and aid.

This software offers a high resolution for the management of the images and an automatic images depth of the resolutions in order to show them to the Internet customers. There is also the simultaneous management of manuscript digital reproductions. Moreover, the software contains an indexing system that can be used for all the words (shapes) inserted in a document during the transcription and for all the annotations containing the references to the text where every single unit appears.

Current Stage of Development: Already on the market

Intellectual Property Rights: Secret know-how

Current and Potential Domain of Application:

Collaboration Type:
- Assembly
- Technical consultancy
- Maintenance

Comments
- Type of partner sought: Libraries, Cultural Institutes, Museums.

- Specific area of activity of the partner: Institutes or companies interested in a software for the integration of documents. It is usually useful within Cultural Institutes or Libraries.

- Task to be performed: Technical Assistance is offered to the partner. In particular a first consultancy to make sure of the correct installation of the software, according to the client needs. A periodic assistance would be useful in order to guarantee the best performarce of the system.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=22226&org=000

Technology Offer

27 - A search engine for video and images that is based on visual similarity and semantic annotations

Reference: 06 GR IHND 0GDV

Country: Greece

Deadline: Fri, October 12, 2007

Abstract:
A Greek IT research institute is developing (at a prototype level) a search engine capable of retrieving visual content such as 2D/3D images and video based on keyword annotation, or on the visual similarity of images provided by the user. The system has been used to retrieve visual content from the cultural heritage domain, but it can be easily incorporated into other domains. Content providers or distributors who are interested in applying this methodology are sought for technical cooperation.

Innovations and advantages of the offer:

The novel feature of highest significance is that the two subsystems described can co-operate at run-time in a hybrid fashion. Thus the user has more options to use in order to get back the desired result set.

Based on publicly available DBMS (DataBase Management System) MySQL (is an open source relational database management system that uses Structured Query Language, the most popular language for adding, accessing, and processing data in a database) knowledge base, MPEG-7 XM server (Easy Personal FTP Server). The search engine can be easily extended and configured to the user's needs.

Current Stage of Development: Available for demonstration

Intellectual Property Rights: This methodology and product has been developed in the context of funded multi-partner research project (IST-2001-32795) and graduate and undergraduate dissertations.

Current and Potential Domain of Application: Digital collection management systems, image search engines.

Collaboration Type:
- Joint Venture Agreement
- Joint further development
- Adaptation to specific needs

Comments
- Type of partner sought: Multimedia Content provider/distributor

- Task to be performed: The potential partner will provide the multimedia content and the requirements for further applications of the engine

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=21235&org=000

Technology Request

28 - Cheap Real Time Locating Systems (RTLS) based on WiFi or Bluetooth technology

Reference: 06 IT IREN 0GL9

Country: Italy

Deadline: Mon, October 15, 2007

Abstract:
A small Italian company is looking for an inside RTLS (Real Time Locating System) to be integrated within a PDA-based multimedia guide for tourists. The required technology should be based either on TAG (Tiny Aggregation Service) WiFi or on detection software running under a well-known mobile operating system (for PDAs). The technology requested can either be at the laboratory stage or fully developed.

Technical Specifications / Specific technical requirements of the request:

- Accuracy: 1 m
- Location speed: 1 s
- Life cycle (for TAG only): more than 1 year
- Price for the tag: less than 10 €
- Sensors inside: motion detection
- Logic: it switches on only if moved

Collaboration Type:

- Adaptation to specific needs
- Transfer of knowledge in new raw materials
- Engineering

Comments

- Type of partner sought: TAQ manufacturer or RTLS software developer.

- Specific area of the activity of the partner: Electronics and informatics.

- Task to be performed: Integration of the TAG/RTLS software with the company's own system.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=21501&org=000

Technology Request

29 - Protective shell for handheld device

Reference: 05 IT LOCM 0DUH

Country: Italy

Deadline: Mon, December 31, 2007

Abstract:
An Italian SME has developed special multimedia audio-video visit guides for assisting the visitor wherever he wishes in complete freedom within open spaces. The company would like to start some technical cooperation or a manufacturing agreement with a producer of protective shells for electronic handheld information devices made of shockproof material able to reduce to minimum the risks deriving from falls and shocks.

Technical Specifications / Specific technical requirements of the request:

The SME is looking for a company able to produce protective shells for hand-held computers made of shock-proof materials able to reduce to minimum the risks deriving from falls and shocks, to be adapted and applied on to the portable audio-guides.

The hand-held computers (audio-guides devices) are common Personal Digital Assistants, with double battery; therefore the shell should contain the battery as well, and might need some adaptation.

Collaboration Type:

- Joint further development
- Adaptation to specific needs
- Change in the partner sought's currently used technologies (installations, process, facilities)

Comments

- Type of partner sought: SME, industry.

- Specific area of activity of the partner:
Materials (plastic, rubber, etc.), safety, IT components.

- Task to be performed: Technical co-operation is required for possible adaptation of the technology that the Italian company is looking for, and manufacturing agreement in order to subcontract the production of the new component required.

Link to further info: http://www.ircnet.lu/matching/completerec.cfm?BBS_ID=17945&org=000

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