Technology Offer

Novel set of IT tools for monitoring and objectifying the table olives elaboration process

Summary

A Southern Spanish SME, provider of IT services to the agriculture sector, has developed a novel set of IT tools comprising hardware, software and app capable of fully monitoring and objectifying the process of elaboration table olives. This tool contributes positively to environmental and economic impacts as well as a better product quality. The SME is interested in getting in contact with industrial companies of table olive production for commercial agreements with technical assistance.

Creation Date	07 February 2017
Last Update	15 February 2017
Expiration Date	15 February 2018
Reference	TOES20170207001

Details

Description

Currently, the process of elaboration of table olives is based on subjective methods, mainly by the experience of the technical manager.

According to the state of art, there isn´t any tool capable of objectifying this process at 100% accuracy. The Southern Spanish SME has approached with the concept of industry 4.0 sector, since all the stages of the process are monitored on-line and real-time as well as analyzed thanks to the tool they have developed. The results obtained are converted into knowledge through Big Data techniques.

This tool is an easy-to-implement user-friendly system that only requires a device (similar size to a small printer) and a tablet with an Internet connection.

This set of IT tools can be used for the process of elaboration of the 3 major varieties of table olives: sevillian green style, natural black and black ripe, so that any company can benefit from this new system.

For each production stage, different measures are taken and processed using analysis software which yields data on the evolution of the process over time in order to optimise it. The tool can predict the end of the process to produce the best-quality final product.

All collected information is uploaded to a cloud server that is available online in real-time to both the client manufacturing staff and technicians working outside the client facilities.

In this way, communication is continuous and any failure in the production operations can be easily avoided or solved. In addition, this improves the quality of the decision process and therefore the quality of the olives.

The Spanish SME is interested in approaching table olive processing companies for commercial agreements with technical assistance. They should need optimisation of their manufacturing processes.

Advantages and Innovations

Advantages
By objectively monitoring different stages in the process, the system hereby exposed it optimizes the quality, efficiency and reliability in the processing of table olives. This is translated into:
-Better product quality and traceability. It reduces quality losses along the whole production process. The impact in quality improvement can be up to 15-20% (it highly depends on the initial level of optimization in the processes).
-A reduction of the environmental impact, due to waste reduction through efficient processing. An optimized process monitored with this tool can generate up to 4-5 times less wastewater compared to a traditional processing (e.g. green olives: 0.65 versus 2.50 L/kg, black ripe 0.65 versus 3.50 L/kg).
-A reduction of production costs, due to efficient input consumption and reduced corrections and wastewater management. The reduction differs depending on the level of technical capabilities in the industry, reaching levels over 20% in companies following traditional processing.

Innovations
Apart from advantages indicated above, all functionalities of this tool contribute to the sector with a very important innovation: Introduction of objectivity, achieving a higher degree of reliability, as an objective method is applied.
Currently, the process of elaboration of table olives is based on subjective methods, mainly the experience of the technical manager. This tool contributes to 100% monitoring and manage the manufacturing process.

Stage of Development

Already on the market

IPR Status

Copyright

Profile Origin

Private (in-house) research

Keywords

Technology

01003010	Databases, Database Management, Data Mining
01003024	Cloud Technologies
01004	IT and Telematics Applications
02003001	Process automation
08002004	Traceability of food

Market

08002003	Process control equipment and systems
09005	Agriculture, Forestry, Fishing, Animal Husbandry & Related Products

NACE

J.63 Information service activities

Network Contact

Issuing Partner

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Open for EOI : Yes

Dissemination

Send to Sector Group

ICT Industry and Services

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

2005

Turnover

<1M

Already Engaged in Trans-National Cooperation

Yes

Experience Comments

Other certification standards not listed below: 1. UNE 166002 (Research & Development management standard) 2. Better Process Control School (BPCS) provided by Food Safety Preventive Controls Alliance (FSPCA)

Certification Standards

ISO 9001

Languages Spoken

English

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

The Spansih SME is interested in getting in contact with table olive (Sevillian green olives, green, natural black, or black ripe.) processing companies. They should carry out the entire process of elaboration. Private or cooperative companies of 1st or 2nd degree are welcome. Commercial agreements with technical assistance is sought by this industrial company to optimise their manufacturing processes.

Type and Size of Partner Sought

SME 11-50,SME <10,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

Commercial agreement with technical assistance

Attachments

Image-based CAPTCHA for touch screen devices

Summary

Researchers from a Spanish university have developed a new image-based CAPTCHA technology for touch screen devices such as mobile phones or tablets. This invention allows controlling web access, in addition to selecting and counting image elements. Also it allows for analysing and segmenting images. ICT companies engaged in the implementation and development of CAPTCHA related technologies are sought for licensing and research cooperation agreements.

Creation Date	09 March 2017
Last Update	21 March 2017
Expiration Date	28 February 2018
Reference	TOES20160205001

Details

Description

A Spanish research group specialized in image processing, analysis and computer vision has developed an innovative image-based CAPTCHA technology for touch screen device. A CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart) is a widespread security measure that prevents automated abuse of networked resources such as free-e-mail, providers, social networks, wikis and blogs.

One of the advantages humans possess over computers is the capacity to recognize similar objects within images, in spite of various types of distortion. The invention proposes a new form of image-based CAPTCHA interface design well suited for touch screen devices. In addition, it allows identifying and counting image elements to provide solutions to certain tasks that computers cannot perform without human intervention (Human-Based Computation).

For example, the prototype developed permits users employ their fingers directly on the screen surface to select and count human erythrocytes in an image. Furthermore, they can select different deformed red blood cells causing certain types of anaemia such as siklemia.

ICT companies engaged in the implementation and development of CAPTCHA related technologies are sought.

Advantages and Innovations

The developed technology in comparison with similar products permits the direct use of one's fingers on the screen surface to recognize similar objects within given images. Furthermore, this invention is particularly accessible for younger or non-expert smart device users.

Stage of Development

Prototype available for demonstration

Comments Regarding Stage of Development

Prototype available for demonstration. The interface allows distinguishing human users from computer bots. The usability testing shows that it is well-suited for mobile devices.

IPR Status

Secret Know-how

Profile Origin

Private (in-house) research

Keywords

Technology

01003006	Computer Software
01003007	Computer Technology/Graphics, Meta Computing
01003012	Imaging, Image Processing, Pattern Recognition
01003013	Information Technology/Informatics
01003018	User Interfaces, Usability

Market

02004004	Other scanning related (incl. image processing, ...)
02006009	Other computer services

NACE

M.72.1.9	Other research and experimental development on natural sciences and engineering

Network Contact

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Open for EOI : Yes

Dissemination

Send to Sector Group

ICT Industry and Services

Client

Type and Size of Organisation Behind the Profile

University

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

ICT companies engaged in the implementation and development of CAPTCHA related technologies are sought.

Type and Size of Partner Sought

SME 11-50,SME <10,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

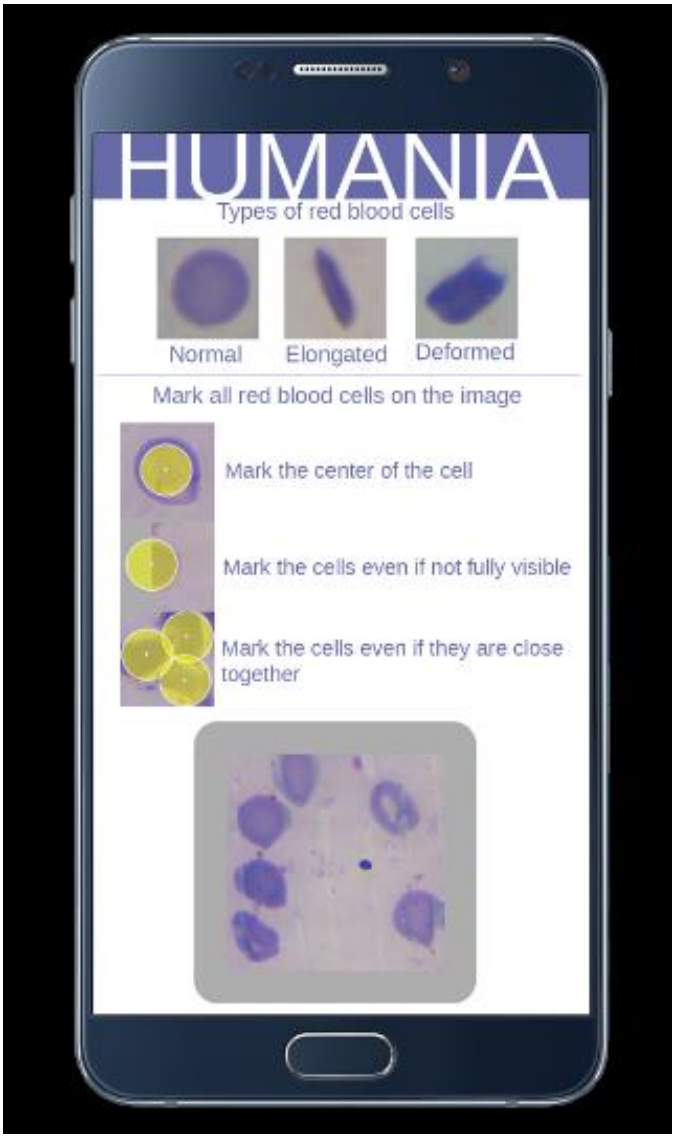
License agreement
Research cooperation agreement

Attachments

captcha2.png



captcha1.png


HUMANIA
Types of red blood cells
Normal
Elongated
Deformed
Mark all red blood cells on the image
Mark the center of the cell
Mark the cells even if not fully visible
Mark the cells even if they are close together

Technology Offer

The company working in the electrical circuits sector is looking for partners.

Summary

A Turkish company offers processor IPs (Intellectual Property) for implementing embedded systems in systems on chip. Their processors IP are silicon efficient and ultra-low power 32-bit. The company is active in the field of electronic information and is looking for partners licensing-out its products and services to Germany, Britain and the USA.

Creation Date	30 December 2016
Last Update	05 January 2018
Expiration Date	18 July 2018
Reference	TOTR20161230001

Details

Description

The company is conducting R&D and sales activities in the field of electronic information. The company has 10 employees. It has quality personnel structure.
R&D activities 'integrated circuit intellectual property core' is the domain of embedded signal processing system development. Intellectual property cores, person or organization reusable chip layout of the design.
Intellectual property cores, are reusable design chip layout belonging to the person or entity. Application-specific integrated circuits (ASIC) or field programmable gate arrays (FPGA) is a building block. A Turkish company that designs 32 bit general processor IP cores that can be applied to almost any system-on-chip (SoC)/ASIC (Application Specific Integrated Circuit) application. Any core can be tailored according to the partner’s needs.
JESD204B is a new transmission standard between processor and data converters. It presented by the Company as JESD204B product design.
With this data exchange is assured by Cysteine chip. Fast data transfer is ensured.
Base stations, remote radio head (increased need for this technology, 4G), is used in high-speed data conversion applications such as active electronically scanning array radar systems.
Signal separation feature, character displacement of the active / passive as the direction and error reports that are advantageous compared to its competitors in the world market.
Working with electric circuits kitchen utensils, toys, radar systems, manufacturers can work with the company's new technology products.

Advantages and Innovations

- Very low power consumption
- Very good code density
- Excellent starting point for security solutions.

Examples:
- Very price-sensitive applications with relatively low margins such as SIM cards and touchscreen controllers for smart phones,

- Implementation of low power systems with a low duty cycle for wireless applications including smart metering and Internet of Things (IoT)

Stage of Development

Already on the market

IPR Status

Copyright

Profile Origin

National or Regional R&D programme

Keywords

Technology

01002004	Embedded Systems and Real Time Systems
01002010	Printed circuits and integrated circuits

Market

01004002	Data communication components
03001005	Microprocessors

NACE

J.63.1.1	Data processing, hosting and related activities

Network Contact

Issuing Partner

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Open for EOI : Yes

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

2009

Turnover

<1M

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English

Client Country

Turkey

Partner Sought

Type and Role of Partner Sought

License Agreement: Any type.
Partner shought: The company is looking for companies with need to obtain tools and algorithms concerning the compression of images and video. Any application that needs to be implemented in an FPGA (an integrated circuit designed to be configured by a customer or a designer after manufacturing) or ASIC (An application-specific integrated circuit) device, with standrads based functionality, covered by the available IP Cores solutions.

Type and Size of Partner Sought

SME 11-50,University,R&D Institution,SME 51-250

Type of Partnership Considered

License agreement

Attachments