Profile Status: Published

## Technology Offer

# Learning space to implement educative robotics in official curricula

## Summary

*A Spanish company specialized in educational robotics is looking for partners in European countries for further development and customization of a LMS (learning management system) platform for educational activities with social robots. This LMS platform allows students to study official curricula (primary and secondary schools) in an interactive and digital environment. Apart from technical cooperation agreement, the company is also interested in a commercial agreement with technical assistance.*

| | |
|---|---|
| **Creation Date** | 03 May 2017 |
| **Last Update** | 19 May 2017 |
| **Expiration Date** | 19 May 2018 |
| **Reference** | TOES20170503001 |
| **Public Link** | https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/901dda24-d334-48df-bbcd-c610433a6104 |

## Details

### Description

A Spanish SME working in educational robots has developed a LMS (Learning Management System) for carrying digital learning activities, with the use of educational robots, to introduce new methodologies in teaching of the official curricula, and to create a new paradigm of education applying the latest developments in ICT and educational robotics technologies in order to improve the quality of education especially in the fields of formal education (kindergarten, primary and secondary).
The system aims to incorporate a significant and innovative improvement in both technology and organizational, as in generation of educational digital content to promote an intelligent environment that allows the implementation of content and educational sessions for use of social robots in the classroom, to facilitate the approach of the robotic technology benefits to teachers and students.
The system is a comprehensive Platform created for easily implementing robots in educational curricula. It allows professionals to create, without the need for specific IT skills, their own educational contents to be implemented over any robot in the market, as well as manage these contents and students' progression.
The use of robots in education entails a framework too rigid, closed and costly to meet the needs and wants of the people involved in education. The platform addresses this situation from a deep understanding of the barriers that are preventing a wide use of an exciting technological advance in education: It is a Learning Management System, it is capable of operating with different robots, it is extremely user friendly, bases in visual interfaces.

At present, there is no solution that facilitates the management of educational contents, their integration in the official curriculum, and the implementation in the classroom of different robots. There are partial developments based in the use of social robots, without integration in the educational system and without educational contents.
Two types of cooperation are envisaged:
- Technical cooperation with companies and/or R&D partners interested in joint further development, testing and adaptation of the platform.
- Commercial agreement with technical assistance with potential users of the platform.

**Advantages and Innovations**

The LMS has been designed taking into account the characteristics of an educational project for teaching the core subjects of the Spanish educational system specifications. The organization of all the learning activities have been designed and adapted on the basis of:
• Educational level: child education / primary / secondary / high school education teaching.
• For each educational level, knowledge areas: for example, natural sciences, social sciences, mathematics, language, etc.
• For each knowledge area, skills and thematic blocks: for example the block of matter and energy; core competences, for example, mathematical competence and basic competences in technology.
The system has taken into consideration the characteristics of the students, adapting the methodology and activities to social, motor, affective, to communicative and cognitive characteristics of students, to create an environment specific virtual learning for education in cycles of primary and secondary .

The added value of the platform can be found at:
• Flexibility. It can be adapted to both the curriculum of the institution, as to the content and teaching style of the organization. It also allows to organize courses easily and quickly.
• Interactivity. The students become the protagonists of their own learning, promoting the development of personal autonomy.
• Standardization. Content / activities follow a standardized design, providing them with a uniformity that facilitates learning processes at all levels. Thanks to this standardization, you will be able to see trends in the development of students throughout their academic record.
• Usability. The platform is designed according to the characteristics of the students, and is a totally friendly environment that facilitates learning processes.
• Ubiquity. Ability of a platform to generate tranquillity to the school that everything you need will be found in this virtual environment.

**Stage of Development**

Available for demonstration

**IPR Status**

Copyright

**Profile Origin**

Private (in-house) research

## Keywords

**Technology**

| | |
|---|---|
| 01001001 | Automation, Robotics Control Systems |

| | |
|---|---|
| 01004013 | Didactic System |
| 01005002 | E-Learning |

**Market**

| | |
|---|---|
| 02007010 | Education software |
| 07005004 | Education and educational products and materials |

**NACE**

| | |
|---|---|
| J.62.0.9 | Other information technology and computer service activities |

## Network Contact

**Issuing Partner**

ASTER - SOCIETA CONSORTILE PER AZIONI

**Contact Person**

Vera Lullo

**Phone Number**

+39 0516398090

**Email**

vera.lullo@aster.it

## Open for EOI : Yes

## Client

**Type and Size of Organisation Behind the Profile**

Industry SME 11-49

**Year Established**

0

**Already Engaged in Trans-National Cooperation**

Yes

**Languages Spoken**

English
Spanish

**Client Country**

Spain

## Partner Sought

**Type and Role of Partner Sought**

In the case of a technical cooperation agreement:
Type of partner sought: academy, company, partners in R&D.
Specific area of activity of the partner: education, manufacturing, research and development.
Task: the Spanish company is looking for partners interested in joint further development, testing of the technologies/products and adaptation. Partner is expected to ensure technological capacities and further commerce capacities.
In the case of a commercial agreement:
The partner would be a user of the learning platform, under the supervision of the Spanish company that will offer the necessary assistance. The partner will be able to access and test the contents designed for the teaching of educational robotics with the aim of a future commercialization in its area of influence.

**Type and Size of Partner Sought**

SME 11-50,University,R&D Institution,SME <10,>500 MNE,251-500,SME 51-250,>500

**Type of Partnership Considered**

Commercial agreement with technical assistance
Technical cooperation agreement

## Attachments

Profile Status: Published

## Technology Offer

# Telecare and fall detection system on a smart watch for the elderly

## Summary

*A Slovenian research institute is offering licencing of software for telecare and fall detection applications on the elderly care and wellbeing market. The software is running on a smart watch, which is adapted for the elderly who are still active, however occasionally they need some support from a caretaker. The institute is looking for companies that develop wellbeing devices. Companies with special focus on elderly applications and services are of special interest.*

| | |
|---|---|
| **Creation Date** | 25 April 2017 |
| **Last Update** | 08 May 2017 |
| **Expiration Date** | 08 May 2018 |
| **Reference** | TOSI20170425001 |
| **Public Link** | https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/a022cccb-63a1-403b-a127-ca7207be345d |

## Details

### Description

The number of elderly living with cognitive impairment is growing rapidly due to increasing life expectancy. The percentage of those who live alone depends upon the condition (i.e. roughly 30% of those diagnosed with dementia) but the majority would like to live in their own home or with a family, provided that it is safe, comfortable, and cost effective. The proposed software application is helping elderly to prolong and support their independent living. The product is a software application that is running on a smart watch that works indoors and outdoors, is practical, intuitive and simple to use. The user interface and all functions of the application were developed for the elderly, however, they can be adopted to other groups of people (e.g. kids). The main objective of the smart watch application is to give the elderly extra confidence and support with their everyday tasks in a house and outside of the house. The main function of the application is automatic detection of falls and other dangerous situations. If such situation occurs, the smart watch informs relatives or other caregivers by automatically calling them via established mobile phone connection and sending them SMS with the event description and a location of the person. The only limitation for communication of the smart watch is the coverage of the mobile phone network. The use of mobile phone network and possibility of establishment of phone call differentiates this solution from other fall detection systems on the market, which mainly work in the range of their in-house communication signal (e.g. Bluetooth or Wi-Fi). The system includes proprietary state-of-the-art technologies and award-winning algorithms for activity recognition. The system is currently under the evaluation of a group of beta users (elderly persons and caregiver institution) who are giving user feedbacks for developers to final modify the user interface and functional properties of the smart watch.

Authors of the algorithm are computer science experts employed at the Slovenian institution for research in sciences and technology. They are specialized in the development of proprietary methods and algorithms for analysing wearable sensor data used mainly in health domain, but applicable to other domains. The team has been among finalists of the global competition for medical diagnostic devices. They have won the international competition for activity recognition. They are active in several projects for development smart watch and other wearable monitors for independent living of seniors with dementia; detection of falls and abnormal behaviours for elderly; support older workers in reducing physical and mental stress using wristband and personalized advices and decision support to help patients with heart problems.
The research institute is offering a software licence to companies active in the wellness and elderly care sectors. The most suitable partners are companies, which develop and produce wearable wireless wellbeing devices with special focus on elderly applications and companies, which offer solutions for elderly care institutions, nursing homes, residential care institutions and adult day service centres.

**Advantages and Innovations**

Many commercial applications and research prototypes for automatic fall detection are available on the elderly care market for last couple of years. There is, however, a lack of fully mobile application without the need of external base station or other device to establish a communication with a caregiver. Mainly, the fall detection sensors (e.g. smart wristbands or necklaces) work within a limited range of a home base station or only in pair with an external communication device (e.g. smart-phone). The main conceptual advantage as opposed to many available solutions on the market is that the proposed solution runs on a commercially available and affordable wristwatch, which enables full mobility and communication, which is limited by the phone signal coverage of the mobile network operator.

Other advantages of the proposed solution are:

- Novel fall detection system, winning international competition for activity recognition
- Modular and interoperable solution
- Simple integration with carer support portal
- Works indoors and outdoors
- Practical, intuitive, simple to use
- No internet or Bluetooth connection required.

**Stage of Development**

Field tested/evaluated

**Comments Regarding Stage of Development**

The application is currently under the evaluation of a group of beta users (elderly persons and caregiver institution) who are giving user feedbacks for developers to final modify the user interface and functional properties of the smart watch.

**IPR Status**

Secret Know-how,Exclusive Rights,Copyright

**Profile Origin**

Private (in-house) research

## Keywords

**Technology**

| | |
|---|---|
| 01003006 | Computer Software |
| 01004001 | Applications for Health |
| 01004004 | ASP Application Service Providing |
| 11001 | Socio-economic models, economic aspects |
| 11005 | Infrastructures for social sciences and humanities |

**Market**

| | |
|---|---|
| 01002003 | Message forwarding, queuing and answering systems |
| 02007016 | Artificial intelligence related software |
| 05010001 | Safety for the elderly |
| 07001004 | Sporting goods, hobby equipment and athletics clothes |
| 09003007 | Other services (not elsewhere classified) |

**NACE**

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

## Network Contact

**Issuing Partner**

ASTER - SOCIETA CONSORTILE PER AZIONI

**Contact Person**

Vera Lullo

**Phone Number**

+39 0516398090

**Email**

vera.lullo@aster.it

## Open for EOI : Yes

## Dissemination

**Send to Sector Group**

ICT Industry and Services

## Client

**Type and Size of Organisation Behind the Profile**

R&D Institution

**Year Established**

1949

**Turnover**

20 - 50M

**Already Engaged in Trans-National Cooperation**

Yes

**Languages Spoken**

English
Slovenian
Croatian

**Client Country**

Slovenia

## Partner Sought

**Type and Role of Partner Sought**

The research institute is looking for a partner who is interested in obtaining a licence for software for telecare and fall detection. The partner should be able to cover and organize all commercialization activities (marketing and sales, distribution, support, collaboration with third party caregiving institutions).

In particular following partners from wellness and elderly care sectors can be involved in a licencing agreement:

- companies which develop and produce wearable wireless wellbeing devices with special focus on elderly applications;
- companies which offer solutions for elderly care institutions, nursing homes, residential care institutions and adult day service centres.

**Type and Size of Partner Sought**

SME 11-50,R&D Institution,>500 MNE,251-500,SME 51-250,>500

**Type of Partnership Considered**

License agreement

## Attachments

Profile Status: Published

## Technology Offer

# Artificial intelligence using visual discovery to drive more sales and engagement

## Summary

*A Singapore SME that provides deep machine learning and computer vision technology develops intelligent image and video recognition solutions to bridge digital content and commerce through visual search, recommendation and discovery. Its solutions also enable analytics to identify trends and behaviour patterns to help retail, brands and media owners make intelligent recommendations and predictions. It seeks to work with SMEs or MNEs in a licensing, R&D or service partnership.*

| | |
|---|---|
| **Creation Date** | 25 April 2017 |
| **Last Update** | 09 June 2017 |
| **Expiration Date** | 09 June 2018 |
| **Reference** | TOSG20170407001 |
| **Public Link** | https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/100b0b3d-b157-44f3-b7f3-a0b3840d15a8 |

## Details

### Description

The Singapore SME develops fully-automated intelligent visual technology solutions delivered over highly scalable cloud infrastructure capable of supporting billions of images.

Built on deep learning and computer vision technology, the company's solutions are used by major retail businesses today helping over 250 million users make better buying decisions by simplifying their search.

Specialising in image search and recognition, the company automatically converts digital content browsing into engagement opportunities for media owners and make videos shoppable at-scale for video publishers.

Shoppers can take a photo/video of an item in store and search online and look for matching items in the merchant's online and offline stores. This eliminates ineffective and time consuming keyword guessing attempts during the product search and discovery process and promotes sale of products through the search results that can come with recommendations.

Please refer to attached illustration for a summary of the features offered by the technology.

The Singapore SME is keen to explore the following types of partnerships with SMEs of any size or MNEs:

- License agreement
- Services agreement
- Research cooperation

**Advantages and Innovations**

For Retailers:
- Simplifies search experiences for online shoppers and drive traffic to stores
- Powers search across major retailers and over 250 million online shoppers

For Publishers:
- Connects content with commerce through discovery
- Drives engagement and makes content profitable

**Stage of Development**

Already on the market

**IPR Status**

Patent(s) applied for but not yet granted

**Profile Origin**

Other

## Keywords

**Technology**

| | |
|---|---|
| 01 | ELECTRONICS, IT AND TELECOMMS |
| 01004 | IT and Telematics Applications |
| 01004015 | ICM – Internet Content Management |

**Market**

| | |
|---|---|
| 07 | CONSUMER RELATED |
| 07002 | Retailing |
| 07002002 | Clothing and shoe stores |

**NACE**

| | |
|---|---|
| J.58.2.9 | Other software publishing |

## Network Contact

**Issuing Partner**

ASTER - SOCIETA CONSORTILE PER AZIONI

**Contact Person**

Vera Lullo

**Phone Number**

+39 0516398090

**Email**

vera.lullo@aster.it

## 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**

2012

**Turnover**

1 - 10M

**Already Engaged in Trans-National Cooperation**

Yes

**Languages Spoken**

English

**Client Country**

Singapore

## Partner Sought

**Type and Role of Partner Sought**

The Singapore SME seeks to work with SMEs of any size or MNEs.

The partner sought could be any of the following or have similar profiles where they can adopt the artificial intelligence solutions to improve their customer engagement capabilities:

- E-Commerce Players

- Brick-&-mortar retail stores
- Content Publishers
- Brands
- Adtech companies

The type of partnerships could be any of the following:

i) License agreement:
The partner licenses the technology for adoption or offers it as a new product or service to its customers.

ii) Research cooperation agreement
The partner co-develops a new product or services with the Singapore company for adoption or introduction as a product or service to new customer or market segments.

iii) Services agreement
The partner engages the services of the Singapore company in using the technology for its own operations or offering the technology as a product or service to its clients.

**Type and Size of Partner Sought**

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

**Type of Partnership Considered**

Services agreement
License agreement
Research cooperation agreement

## Attachments

Technology Platform.png

