New application for drug detection

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A joint project between UPM and VincilLab Company has resulted in an application that allows us to automatically analyze drug rapid tests detection by using a mobile phone.

This new system, created by Computer Vision Group of the Universidad Politécnica de Madrid (UPM) in collaboration with VinciLab Healthcare, has a high reliability and can be helpful in different areas such as monitoring programmes of prevention, occupational health, risk prevention and control of traffic, transport and police.

So far, results of drug rapid tests detection have been visually explained in the same way as a traditional pregnancy test, that is, by the presence or absence of lines on a paper strip. Usually, visual interpretation can entail errors due to diversity and intensity of lines or lighting conditions when reading the results.

In recent years, some health companies have developed systems that allow us to automatically read tests of drug detection but, these devices are expensive and have limited portability and provide few options to focus and analyze de information of tests which are frequently dispersed.

The new system, VinciPort, is designed to automatically interpret rapid drug test on a mobile phone, being able to minimize errors and misinterpretations.

Relying on the connectivity and usability provided by mobile phone devices, this application simplifies documents, storage and aggregate

data analysis in the same device or in the cloud. The cloud can have a high impact on institutions or governments to assess and monitoring of real time prevention policies.

In order to guarantee the right interpretation, the system has integrated valid algorithms for next generation for Image Processing and Pattern Recognition developed by Computer Vision Group of the UPM. VinciPort is mainly designed for environments that require mobility, speed, reliability and accuracy in the interpretation of results of drug rapid tests.

The system is capable of adapting the workflow of each institution and results can be wireless printed from the same device. The application can send the results by mails or automatically upload them to the VincePport Cloud. It is an ultraportable solution and has a significant reduction in acquisition cost compared to similar equipments on the market.

Provided by Universidad Politécnica de Madrid

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