

Ambient Assisted Living (AAL) Through Innovative Technology

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In order to enhance personal safety and wellbeing, a European research project explores the possibilities of measuring specific stress levels between burnout and bore out.



The system, using common consumer wearable sensor devices, can be easily enhanced for other purposes and linked to a database system.

While this AAL project is supposed to support elderly people at work, the technology has great potential to be adapted in much more areas of work and private life. And it might be soon another useful "thing" in the fast growing IoT.

In the Trans.Safe project, devices and applications are developed out of an international and interdisciplinary team from universities, associations and specialized companies in Switzerland, Germany, Great Britain and Italy.

The expertise of konplan, as a mechatronic engineering company, is the programming of the cloud database, interfaces and to run integration tests of the several system components as there are smartphone apps, as well as sensors and cloud databases. Continuous Integration, unit tests and automated UI tests allow modification within a very short time and make sure that this system is executable as intended.

Applicability is ensured through the constant involvement of potential end users. Product design and usability are monitored by project partners. The wearable data collection system part delivers information about variable parameters like HRV and GSR.

These data are combined with the environmental data collection of temperature, humidity, light intensity and noise level. An algorithm detects the grade of overload respectively underload and suggests an intervention. In this research particularly the light effects are investigated.

Therefore a device with special glasses spreading calming light towards the eyes is developed. This intervention is noticeable for the user, however, it is invisible for others.

With this project konplan proves its excellence as a partner for ambitious interdisciplinary and international mechatronic engineering.

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