

<u>Name</u>	<u>Organisation</u>	<u>Project title</u>	<u>Decision No.</u>	<u>Decision date</u>	<u>Funding period</u>	<u>Funding</u>
Pietikäinen, Matti	OY	Affective human-robot interaction	129236	14.11.2008	01.01.2009 - 31.12.2012	600 000

**Project description**

The objective of the project is to develop leading edge solutions for affective human-robot interaction (HRI) in advanced Ubicom environments. An intelligent robot should be able to detect and identify the user in order to personalize its services and guarantee security, it should recognize user's emotions to allow affective interaction, and it should be able to communicate easily with the user and understand given commands by recognizing speech and gestures. The robot must also learn to change its behavior according to the user and his/her emotional state. The planned research is divided into three work packages dealing with machine vision methodology for HRI (WP1), robot embodiment and learning in HRI (WP2), and experimental validation of affective HRI (WP3). Our experimental system will contain a network of cameras attached in the laboratory environment, an intelligent mobile robot equipped with cameras, microphones and other sensors. The persons interacting with the robot will also have mobile phones or PDAs equipped with cameras. The project team is composed of researchers from two groups: Machine Vision Group (MVG) led by Prof. Matti Pietikäinen and Intelligent Systems Group (ISG) led by Prof. Juha Röning. The team has carried out research on machine vision and intelligent robots since the early 1980's.