

IMPROVED SYSTEM FOR RECOGNITION OF HUMAN ACTIONS

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ABSTRACT

Computer-based recognition of human physical actions is gaining attention in fields such as medical care, tele-immersion and athletic training. Most conventional approaches to computer-based recognition of human actions are based on computer vision systems along with model-based or appearance-based vision algorithms. However, these conventional approaches have limitations including the requirement for human subjects to be observed in a finite environment that is instrumented with cameras and other sensors -- and those instruments can't analyze very small body movements.

To address this problem, researchers at UC Berkeley have developed a distributed recognition framework to segment and classify human actions that was inspired by emerging compression sensing theory.

APPLICATIONS

Medical care, for example quantitative study of treatment of Duchenne Muscular Dystrophy

Assisted living care, for example remote monitoring of elderly people

Athletic training and fitness programs

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,060,714	06/23/2015	2008-082

ADVANTAGES

Observations are not limited to an environment that has been instrumented with cameras and other sensors -- this enables continuous monitoring in natural environments (i.e. homes)

Readily scalable approach thereby enabling the monitoring of increasingly smaller body movements

Power consumption is lower than comparable alternatives

Classification of human actions are more robust and flexible

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OTHER INFORMATION

KEYWORDS

sensors

CATEGORIZED AS

- » **Medical**
- » Other
- » **Sensors & Instrumentation**
- » Other

RELATED CASES

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