Researchers at the University of South Florida have developed a technology with primary utility as provider of clinically useful information related to wandering in dementia and agitated movement in clinical depression; and tools aimed at safety, security and people management.

The US long term care industry continues to experience strong growth due to the aging population. A key purpose of this industry is to help patients achieve a certain level of functional independence while providing a glitch-free continuum of care ranging from low through high intensity services.

According to the most recent data published in 2005, life expectancy which was 47 years in 1900, is now 77.9 years. The implication is that occurrence of age related diseases have increased, and more individuals are requiring care. These needs call for better and more efficient elderly care and management services. Our invention is a huge step in that direction.

A virtual display of the movement of people and objects helps to provide continuous record for management purposes. However, unlike surveillance technologies, it has unique capabilities because of the integrative use of Artificial Intelligence to analyze complex patterns of movements. These include provision of data that describe locomotor patterns characteristic of dementia and depression; multipurpose research tool for researchers working in long term care; tool based on location tracking and awareness services etc.

This technology also has potential application in military training and other fields in which movement monitoring or object tracking is a requirement.

**ADVANTAGES:**
- Patient safety, security and human management
- Provides data on disorders common in long term care industry
- Multipurpose research tool
- Helps to evaluate effectiveness of machine generated messages
- Application to diverse areas of human studies

Tracks the location of people and objects

“Accurate tracking allows better management of wandering and elopement. Here tracked persons are displayed as moving 3D figures in close proximity to an exit.”

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