

## **Kepler Vision ensures care home residents receive immediate care following falls**

*Kepler Vision's computer vision technology alerts staff to residents falling within 60 seconds, outperforming all traditional motion detectors*

**Amsterdam, 19 May 2021** — A recent study by Kepler Vision Technologies - a global leader in computer vision monitoring - has today revealed how its patented care home monitoring solution improves the lives of care home residents by increasing the response speed of staff when residents experience a fall.

Residents falling in care homes is a constant issue. Even when uninjured, 47% of elderly people cannot get up without assistance [1], and research indicates that in the event of a fall residents lie on the floor for 5 minutes or longer in 5 out of 6 cases [2].

In its first extensive real world application, Kepler Night Nurse (KNN) solution reduced this to less than 1 out of 6 cases, significantly reducing the chances of being on the floor for a prolonged period and limited the chance of additional injury. Over an evaluation period of nine months, from June 20<sup>th</sup>, 2020 to March 19<sup>th</sup> 2021 with one of the Netherlands' leading care home groups, Kepler Night Nurse identified and alerted staff to every instance of a patient falling, with 100% reliability.

KNN reduced the number of false alarms that staff received by over 99%. While traditional motion detection systems generated over 2195 alarms over three weeks, Over the same period of time, the KNN system produced only 9 false alarms, massively reducing the burden on staff to respond unnecessarily. This reduced the feeling of 'alarm fatigue' among staff, where desensitization to alarms leads to delayed responses to alarms and even ignorance of true alarms where residents need immediate aid.

During a time when there has never been more of a focus on care homes, as a result of the Covid pandemic, it raises the question as to whether existing technology deployed in care homes is doing a good enough job to protect the health of residents.

Dr. Harro Stokman, CEO of Kepler Vision said: "Residents and families of residents in care homes should be able to have complete confidence that when they fall they can receive assistance in seconds, not minutes or hours. No-one should have to suffer that kind of indignity and run the risk of catching a cold laying on a cold floor for hours while solutions are available that can make this a thing of the past. We are happy to be able to show how our Kepler Night Nurse solution can give care home residents and their families peace of mind, by guaranteeing that they can receive assistance immediately. The fact we can reduce the amount of false alarms that staff need to respond to is so much the better, as this frees up their time to focus on their core purpose of providing person-to-person care."

The KNN solution is a computer vision powered body language detection system which identifies when care home residents are in need of assistance, notifying care staff with simple alerts so they can immediately respond.

Where monitoring systems like motion sensors, bed mats, and wearables are unable to distinguish between a resident in need and a resident just moving in their sleep, Kepler Night Nurse only creates an alert when a resident needs assistance. This allows carers to intervene

when necessary, reducing the amount of time spent checking on patients and freeing up staff time and resources, as well as reducing the disruption to residents at night.

The full Kepler Vision whitepaper can be found here: <https://keplervision.eu/white-papers/artificial-intelligence-improves-resident-safety/>

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[1] Tinetti, Mary E., Wen-Liang Liu, and Elizabeth B. Claus. "Predictors and prognosis of inability to get up after falls among elderly persons." *Jama* 269.1 (1993): 65-70.

[2] Fleming, Jane, and Carol Brayne. "Inability to get up after falling, subsequent time on floor, and summoning help: prospective cohort study in people over 90." *Bmj* 337 (2008).

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### **About Kepler Vision Technologies**

Kepler Vision Technologies is a Dutch company which uses artificial intelligence to look after the well-being of humans at night through vision-based human activity recognition software. Kepler Vision's mission is to make the job of nurses operating in elderly care homes less stressful and more enjoyable by allowing them to focus on providing care - not chasing false alarms and writing endless reports.

To achieve this Kepler Vision's Night Nurse solution analyses live video streams, recognizing if and when clients need care and informing staff accordingly. Kepler Vision Technologies is a spinoff company from the University of Amsterdam. To date, it has received investment from organisations including UvA Ventures and the Netherlands Ministry of Economic Affairs totaling over €3.9 million. The company is headquartered in Amsterdam and employs 15 people with expertise across machine learning, computer vision and healthcare.

The company website is here: <https://www.keplervision.eu/>