Analysis of data from the MariCare Smartfloor at Skovhuset Care Home - DTU Orbit
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In this project data is analysed from a smartfloor which is installed in an elderly care home. Two lines of investigation are carried out. The first uses "event data" from the smartfloor. This data contains every event (bathroom visits, people entering/exiting the room etc.) registered by the floor over a one year period. Control charts are used to investigate a link between the event data and UTI incidence. A clear predictor for UTI is not found, but the value of control charts in this setting is demonstrated. In the second line of investigation "position data" is analysed. The position data is more limited than the event data in that it is extracted manually using image analysis on the smartfloor user interface program. Using the position data, the trajectories traced by a resident moving about their room are visualised and properties such as direction and speed are investigated. A method is found for comparison of trajectories to determine their degree of similarity and this method can identify unusual trajectories in the dataset.

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