

Abstract

The invention relates to a method (100) and a device (1) for monitoring a state of a physical passenger transport system (2). The method (100) comprises monitoring the state of the passenger transport system (2) by means of an updated digital-double dataset (102) which reproduces in a machine-processable manner characterizing properties of components of the physical passenger transport system (2) in an actual configuration after its assembly and installation in a structure (5). At least one detection device (200) is arranged in the conveyor belt (7) of the physical passenger transport system (2), which detects accelerations (a_x , a_y , a_z) and changes in position (α , β , γ) in all three axes (x , y , z) during operation, which are transmitted to the virtual conveyor belt (107) of the UDDD (102). By means of dynamic simulations, forces, impulses and vibrations resulting from the dynamic behavior of the conveyor belt (107), which act on the virtual components (129) of the virtual conveyor belt (107), corresponding to the physical components, and on the virtual components (126, 128) which interact with the virtual conveyor belt (107), can be determined and evaluated by means of the UDDD (102).

(Fig. 1)