Patent Search

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Abstract:

AUTOMATED PLATFORM EXTENSION DEVICE ABSTRACT An automated platform extension device (100) is disclosed. The device (100) comprises an extension housing comprises an extension platform (104). The device (100) further comprises sensors (106) arranged in a proximity of the extension housing (102) to measure a buffer s between a solebar (204) of a vehicle (202) with a platform structure (200). The device (100) is configured to: receive data related to the measured buffer space; receive stoppage of the vehicle (202) at the platform structure (200); transmit an activation signal to trigger a motor driver (110); and enable the extension platform (104) to e adjust in three-dimensional spatial directions till the measured buffer space becomes zero between the solebar (204) of the vehicle (202) with the platform structure device (100) eliminates risk of passengers falling into a train-platform gap by deploying extensions only where doors are located. Claims: 10, Figures: 6 Figure 1A is sel

Complete Specification

Description:BACKGROUND

Field of Invention

[001] Embodiments of the present invention generally relate to a safety barricading device and particularly to an automated platform extension device.

Description of Related Art

[002] Railway transportation remains one of the most widely used modes of travel across the world. Millions of passengers rely on trains daily for both short-dis commuting and long-distance journeys. Despite continuous improvements in infrastructure and rolling stock, issues related to the platform-train gap continue to po persistent challenge. This gap results from necessary allowances and tolerances for lateral and vertical movements of trains, variations in platform designs, and a p of curved station layouts. Such inconsistencies increase the difficulty for passengers to step safely between the platform and the train.

[003] Conventional safety practices rely on visual markings, audible warnings, tactile surfaces, or staff supervision. While these methods provide guidance, they t to eliminate a physical hazard of the platform-train gap. Fixed gap fillers or manually operated ramps exist in certain stations, yet such solutions often prove to be inadequate due to limited adaptability, increased labor requirements, and operational inefficiencies during peak hours. Infrastructure-based adaptations such as pl extensions or retractable fillers are generally expensive, and deployment remains limited to selected locomotive sections with standardized train-door alignment.

[004] The absence of a universally adaptable and cost-effective system continues to expose passengers to accident risks. Vulnerable groups such as elderly indiv children, and persons with disabilities face greater danger when navigating the platform-train gap. Moreover, crowded stations and rushed commuters exacerbate problem, leading to frequent safety concerns

View Application Status

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