

Optimising passenger safety and comfort and train dwell time: Automatic Selective Door Operation (ASDO) system by EKE-Electronics Ltd.

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By EKE-Electronics

Automatic Selective Door Operation (ASDO) is a train door control system that automatically enables the correct train doors to be opened on the right side and place of the platform. The system automatically checks the platform configuration to ensure that only doors safe to be opened are enabled, thus enhancing passenger comfort and safety while allowing for shorter stops at stations.

ASDO is connected to the train door control unit, allowing it to release the doors. The system enables that where the platform is shorter than the train, some doors can be prevented from opening to ensure that passengers do not disembark from coaches not standing on the platform. The system ensures that only the doors on the platform side of the train are enabled, thus maximising the usage of the train and

infrastructure capacity without compromising safety. The system is SIL2 according to Safety Integrity Level standards.

ASDO uses an onboard system unit with odometer, GPS, and optionally balises together with the Station database to decide which doors are safe to enable. The system architecture of ASDO (picture attached) involves an onboard ASDO system unit that uses technologies such as Trackside Beacons, Global Positioning System, Distance Measurement, Route Tracking, and Platform Detection to determine the train's accurate position and the corresponding platform configuration.

The ASDO Visualisation Tool is an add-on to the ASDO Station database tool. It enhances user experience by providing an interactive map window that visualises objects from the ASDO database, including Stations, Reset Points, and Segments. The tool's graphical user interface simplifies editing of the station database, utilising the OpenStreetMap Online map. (Link to our brochure)

The ASDO system optimises train dwell time at stations, improves passenger safety, and increases operational efficiency.

Benefits for train operators:

Enhanced safety

Shorter stops

Streamlined operations

Benefits for passengers:

Enhanced safety

Improved comfort

Reduced delays

Overall benefits:

increased capacity, greater flexibility, lower costs, enhanced passenger experience, improved service reliability, shorter dwell times

3) Download brochures: EKE-Trainnet®

(https://www.eke-electronics.com/wp-content/uploads/2022/08/EKE-Trainnet-Brochure-full_20220826.pdf)

ASDO Visualisation tool

(<https://www.eke-electronics.com/wp-content/uploads/2022/08/ASDO-Visualisation-Tool-Brochure.pdf>),

[Click here for more details.](#)

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