Automatic Site Survey and Inspection

Organization: Kone

Overview: KONE does maintenance to own elevators and Non-Kone elevators also. Maintenance is now carried out manually. Few inspection areas in the site is possible to automate on having suitable solution.

Current Challenges: Currently technician goes to the site for regular inspection of the elevator components in the shaft. This includes travelling cost, time and manual effort. Identifies the problem and one more visit is required to fix or replace the components.

Business Requirements: Technology Partner, Site Inspection if automated can reduce the manual effort, cost and time. Solution required to capture the data, learn and do the analytics. This helps Kone in doing faster and better maintenance. For e.g. A Camera can be placed on top of the car to capture the images or video of the components and do the analytics on the edge or cloud. Or a drone can do the inspection autonomously.

Use cases: 1. Give 3D/2D models with dimensions with the accuracy of +or-30 mm by scanning the entire shaft. This will be helpful while installing the elevator. 2. Rope failure detection, elevator ropes are subject to damage over a period of time and usage, condition monitoring of the rope helps in predictive maintenance. 3. It is possible for the landing doors to get gaps in between. This may leads to door operation failure. Identifying such issues automatically helps in predictive maintenance.