

Design and Fabrication of Pneumatic System to Generate Compressed Air by Using Locomotive Wheel

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Abstract: Train passenger door is the key system for operation and maintenance on urban rail train. In this paper, we analysis passenger door system of urban rail train working process and establish the mathematical model Firstly, we use the method of parameter estimation to get physical parameters of doors on different working condition. Then fault diagnosis experiment is done to train passenger door with principal component analysis and rough set theory, In the end, we verify fault diagnose accuracies under different time settings of opening and closing profile with the test rig.

Keywords: Door control system, fault diagnosis, principal component analysis (PCA)

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