

A Method of Estimating Flight Area for Unmanned Aircrafts Used for Inspection of DC Overhead Contact Line System

Gaku MORITA Kiyonobu HIGUCHI Takashi SASAKAWA

This paper proposes a method of estimating safety flight area for unmanned aircrafts aimed at inspection of DC overhead contact line system. In a DC electrified railway environment, DC magnetic field emitted from traction currents and magnetization of iron structures may affect an operation of flight control system of an unmanned aircraft. The method proposed in this paper is provided on the basis of a case study in some unmanned aircraft applications, an immunity test of two type unmanned aircrafts, an experimental study and a development of a new simulation technique.