1. Record Nr. UNINA9910254321403321

| | |
|---|---|
| Autore | Liu Zhigang |
| Titolo | Detection and Estimation Research of High-speed Railway Catenary / / by Zhigang Liu |
| Pubbl/distr/stampa | Singapore : , : Springer Singapore : , : Imprint : Springer, , 2017 |
| ISBN | 9789811027536 |
| Edizione | [1st ed. 2017.] |
| Descrizione fisica | 1 online resource (XIV, 287 p. 238 illus., 162 illus. in color.) |
| Collana | Advances in High-speed Rail Technology, , 2363-5010 |
| Disciplina | 385.22 |
| Soggetti | Transportation<br>Electrical engineering<br>Mechatronics<br>Electrical Engineering |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references at the end of each chapters. |
| Nota di contenuto | Detection and Estimation Research Overview of High-speed Railway Catenary -- Statistical Characteristics of Pantograph-Catenary Contact Pressure Data -- Wave Characteristic of Contact Line Considering Wind -- Geometry Parameters Detection of Catenary -- Slide Fault Detection of Pantograph -- Fault Detection of Catenary Support System -- Wire Irregularities Detection of Contact Line -- Estimation of Catenary Based on Spectrum. |
| Sommario/riassunto | This book describes the wave characteristics of contact lines taking wind into consideration and discusses new methods for detecting catenary geometry, pantograph slide fault, and catenary support system faults. It also introduces wire-irregularity detection methods for catenary estimation, and discusses modern spectrum estimation tools for catenary. It is organized in three parts: the first discusses statistical characteristics of pantograph-catenary data, such as stationarity, periodicity, correlation, high-order statistical properties and wave characteristics of contact lines, which are the basis of pantograph-catenary relationship analysis. The second part includes geometry parameter detection and support-system fault detection in catenary, as well as slide-fault detection in pantographs, and presents some new detection algorithms and plans. The final part addresses catenary |

estimation, including detection of contact-line wire irregularities and estimation of catenary based on spectrum, and presents detection methods for contact-line irregularity and modern spectrum estimation tools for catenary.