1. Record Nr. UNISA996418258003316

Autore	Jacob Maria
Titolo	Forecasting and Assessing Risk of Individual Electricity Peaks [[electronic resource] /] / by Maria Jacob, Cláudia Neves, Danica Vukadinovi Greetham
Pubbl/distr/stampa	Cham, : Springer Nature, 2020 Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-28669-X
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XII, 97 p. 38 illus., 35 illus. in color.)
Collana	SpringerBriefs in Mathematics of Planet Earth, Weather, Climate, Oceans, , 2509-7326
Disciplina	519
Soggetti	Mathematics Statistics Energy efficiency Algorithms Energy systems Mathematics of Planet Earth Statistical Theory and Methods Energy Efficiency Energy Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Preface -- Introduction -- Short Term Load Forecasting -- Extreme Value Theory -- Extreme Value Statistics -- Case Study -- References -- Index.
Sommario/riassunto	The overarching aim of this open access book is to present self-contained theory and algorithms for investigation and prediction of electric demand peaks. A cross-section of popular demand forecasting algorithms from statistics, machine learning and mathematics is presented, followed by extreme value theory techniques with examples. In order to achieve carbon targets, good forecasts of peaks are essential. For instance, shifting demand or charging battery depends on correct demand predictions in time. Majority of forecasting

	algorithms historically were focused on average load prediction. In order to model the peaks, methods from extreme value theory are applied. This allows us to study extremes without making any assumption on the central parts of demand distribution and to predict beyond the range of available data. While applied on individual loads, the techniques described in this book can be extended naturally to substations, or to commercial settings. Extreme value theory techniques presented can be also used across other disciplines, for example for predicting heavy rainfalls, wind speed, solar radiation and extreme weather events. The book is intended for students, academics, engineers and professionals that are interested in short term load prediction, energy data analytics, battery control, demand side response and data science in general. .

2.	Record Nr.	UNINA9910983390303321
	Autore	Huang Wei
	Titolo	Advances in Dynamics of Vehicles on Roads and Tracks III : Proceedings of the 28th Symposium of the International Association of Vehicle System Dynamics, IAVSD 2023, August 21–25, 2023, Ottawa, Canada - Volume 1: Rail Vehicles / / edited by Wei Huang, Mehdi Ahmadian
	Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
	ISBN	9783031669712 3031669711
	Edizione	[1st ed. 2025.]
	Descrizione fisica	1 online resource (1281 pages)
	Collana	Lecture Notes in Mechanical Engineering, , 2195-4364
	Altri autori (Persone)	AhmadianMehdi
	Disciplina	625.2
	Soggetti	Railroad engineering Dynamics Nonlinear theories Transportation engineering Traffic engineering Rail Vehicles Applied Dynamical Systems Transportation Technology and Traffic Engineering
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia

Nota di contenuto	Preface -- Organization -- Contents -- Multi-band Fault Feature Extraction of Rail Vehicle Axle-Box Bearing Under Multi-source Interferences -- 1 Introduction -- 2 Proposed Method -- 3 Verification with Train Axle-Box Bearing Fault Signals -- 4 Conclusions -- References -- Advances in Long Train-Track Dynamics Modelling -- 1 Introduction -- 2 Method -- 3 Simulation Results -- 4 Conclusion -- References -- A Machine Learning Approach for Predicting Railway In-Train Forces from ATO Measurements -- 1 Introduction -- 2 LTD Modelling and Data Collection -- 3 Machine Learning Predictive Model -- 4 Predictive Results -- 5 Conclusions -- References -- On Seismic Analysis of a HighSpeed Train Travelling over a HighPier Bridge -- 1 Introduction -- 2 Train-Track-High Pier Bridge Dynamic Interactions Under the Seismic Action -- 3 Ground Motion Simulation -- 4 Numerical Analyses -- 5 Conclusions -- References -- Research on Hinge Load of Upper Arm Based on Rigid-Flexible Hybrid Model of Pantograph Considering Spatial Characteristic
Sommario/riassunto	This book offers a timely snapshot of research and development in rail vehicle dynamics. Gathering a set of peer-reviewed contributions to the 28th Symposium of the International Association of Vehicle System Dynamics (IAVSD), which was held on August 21–25, 2023 in Ottawa, Canada, this first volume of the proceedings covers a broad range of topics relating to rail vehicles. Topics covered include modelling and simulation as well as design, control, and monitoring of rail vehicles and strategies to improve safety, performance, and ride comfort, among others. Overall, this book provides academics and professionals with a timely reference on state-of-the-art theories and methods that can be used to understand, analyze, and improve rail vehicle safety and performance in a wide range of operating conditions. .