

1. Record Nr.	UNINA9910253983703321
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Titolo	Intelligent Transportation Systems : Functional Design for Effective Traffic Management // by Robert Gordon
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-14768-4
Edizione	[2nd ed. 2016.]
Descrizione fisica	1 online resource (286 p.)
Disciplina	621.042
Soggetti	Transportation Automotive engineering Civil engineering Application software Automotive Engineering Civil Engineering Information Systems Applications (incl. Internet)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Cost Effective Design Processes -- Functional ITS Design Issues -- Non-Recurrent Congestion -- Improvement of Time to Clear Incidents -- Non-Recurrent Congestion: Incident Information to Motorists -- Recurrent Congestion -- Information to Motorists -- Ramp Metering -- Transportation Management Centers -- Evaluation of System Design and Operation -- Active Traffic Management (ATM) -- Corridor Management -- Website Support.
Sommario/riassunto	<ul style="list-style-type: none"> · Provides Intelligent transportation system (ITS) planners and managers with practical tools and methodologies supporting economical and efficient design · Includes new chapters on the most cutting-edge advances in Active Transportation and Demand Management (ATDM), transportation corridors, coordination of traffic management centers, and evaluation of ITS designs and operations · Examples and cost-benefit analyses drawn from actual projects clearly illustrate concepts · Features methodologies and algorithms for automated evaluation using traffic management center

data Intelligent Transportation Systems: Functional Design for Effective Traffic Management provides practical guidance on the efficient use of resources in ITS designs. The author explains how functional design alternatives can meet project objectives and requirements with optimal cost effectiveness, and clarifies how transportation planning and traffic diversion principles relate to functional ITS device selections and equipment locations. Methodologies for translating objectives to functional device types, determining device deployment densities, and determining the best placement of CCTV cameras and dynamic message signs are provided, as are models for evaluating the benefits of design alternatives based on traffic conditions. Concepts for planning various geographic levels of diversion are described. Readers will learn how to reduce recurrent and non-recurrent congestion, improve incident clearance time, , provide real-time incident information to motorists, and use transportation management center data to implement lane use and speed controls that are key to new active transportation and demand management (ATDM) methods. The author describes the processes and algorithms for using transportation management center data to evaluate ITS performance, and offers examples of how states have organized evaluation results into performance reports for use by decision makers and the public. The book focuses on ITS treatments that improve safety and mobility, reduce motorist delays, improve the use of energy and reduce vehicle emissions. This resource will greatly benefit all ITS designers and managers, and is of pivotal importance for operating agencies performing evaluations to justify operational funding and system expansions.
