

Traffic Engineering in Post-Industrial Era

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The development of traffic engineering sciences was caused by rapid industrial expansion in the field of automotive production and increasing motorization since the first half of the twentieth century. The essential subjects of research were capacity, traffic control and safety which remain till now. New technologies based on data collection, processing and dissemination of information known as transport telematics encourage hopes that many problems might be solved on soft base (electronics, sensors, database, software, data propagation ...). Microscopic models of traffic flow are used instead of traditional calculating formulas especially in more complicated network. Simulated complex systems are characterized by nonlinear dynamic properties and predictions are rather similar to weather forecasting. The responsible researchers must deal not only with new methods but also with realistic estimation of their benefits. New technologies by themselves do not guarantee sustainable transport.