THE NETWORK RELIABILITY OF TRANSPORT

PROCEEDINGS OF THE 1ST INTERNATIONAL SYMPOSIUM ON TRANSPORTATION NETWORK RELIABILITY (INSTR)

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INVESTOR IN PEOPLE

Preface

The reliability of transportation networks has become an increasingly important issue as sustained economic growth and improvements to the quality of life around the world lead to increases in the value of time. Consequently, schedules and routes need to be able to accommodate the unexpected, like accidents, disasters or traffic flow fluctuations, with as little loss in operational efficiency as possible. Sources of unreliability include variation of demand and supply. People in the 21st century will desire a more stable transportation system with less travel time uncertainty. It is widely expected that network reliability analysis will play a more important role in the planning, design and management of transportation facilities and networks in the future.

The First International Symposium on Transport Network Reliability (INSTR) was held at Kyoto International Community House, Kyoto, Japan on 31st, July and 1st, August in 2001. The aim of the symposium was to bring together researchers and professionals interested in transportation network reliability to discuss both recent research topics and future directions in this expanding research field. Fifty-five persons participated and thirty-eight papers were presented from all over the world.

This book, The Network Reliability of Transport, is an outcome of the symposium, consisting of twenty-four selected papers. It covers various aspects of transport network reliability, such as definitions and methodological developments for reliability indices, behavioural analysis under uncertainty, evaluation methods for the disaster resistance of transport networks, and simulation / observation of travel time reliability. We believe that this book successfully encapsulates current understanding of transport network reliability and will become a useful reference for future research activities.

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