

# ***COMPUTERS IN RAILWAYS IX***

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## Preface

This book contains most of the papers presented at the Ninth International Conference on Computer Aided Design, Manufacture and Operation in the Railway and Other Mass Transit Systems (COMPRAIL) which took place in Dresden, Germany in 2004.

The objective of the meeting was to discuss the latest advances in the use of computer-based techniques for the management, design, manufacture and operations of railways and the advanced passenger, freight and transit systems.

Since 1987, the meeting has become the world forum for planners, developers, manufacturers and operators to benefit from the latest developments in this important area. The Conference attracted a large number of papers, divided into the following sections:

- Planning
- Human factors
- Computer techniques, management and languages
- Electromagnetic compatibility and lightning
- Reliability, availability, maintainability and safety (RAMS)
- Freight
- Advanced train control
- Train location
- CCTV/communications
- Timetable and operations quality
- Timetabling
- Traffic control
- Online scheduling and dispatching
- Dynamics and wheel/rail interface
- Power supply/catenary
- Power supply/energy
- Traction and maglev
- Obstacle detection/collision analysis

This book is, as usual, distributed throughout the world by WIT Press, the publishing arm of the Wessex Institute of Technology. In addition, together with all other COMPRAIL Conferences held from 1994 onwards, the papers will be displayed in the electronic library of the Transactions of the Wessex Institute, permanently

available to the international scientific community. This is a major development which will further enhance the COMPRAIL meetings.

The Editors are grateful to all the authors for the excellent papers contributed to this book and to those members of the Advisory Committee who participated in the review process.

The Editors  
Dresden, 2004



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