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# ***Safety and Security in Railway Engineering***

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## Preface

There is a notable lack of agreement regarding the *safety* approaches adopted by different transportation modes, while the sudden increased demands for *security* for both freight and passengers has provided a more uniform methodological approach.

Each transport mode has, over time, developed its own safety rules. The unprecedented and apparently irreversible growth of terrorist activities has affected all transport systems. It is virtually impossible to think of new infrastructure projects without taking these parameters into consideration. This led to the EU Commission recent approval of the European Directive 2008/114/EC “on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection.”

Measures to be taken relating to security are dependent on the users, and if properly handled may help reduce global transport costs and increase the efficiency of the operators. Competing networks can provide information about freight and passenger movements leading to the optimisation of the entire supply chain. This is particularly the case in Italy where freight logistics represents an overhead of 20%, much higher than in other competing countries.

We have, inevitably, a conflict between the disclosure of policies intent on our safety and the very concept of security that includes, of course, a degree of confidentiality of the data and special procedures.

In the case of safety, making statistics, procedures and technologies public can act as a deterrent in order to reduce accidents on transport networks; while managers must protect the same information in order to ensure the personal security of millions of passengers, at sea, on trains, in flight or on the road.

This volume collects the most significant papers that various authors have submitted in conferences organised by the Wessex institute of Technology on *safety* and *security* in order to present the state of the art of research in these areas.

The Editor