

Stanisław Gago: Selected Issues of Safety in Railway Transport

The article features selected safety issues in railway transport. The specific character of railway transport concerning its safety for passengers and staff, both in infrastructure and vehicles (traction vehicles, wagons) has been described.

Railway transport safety should be constantly enhanced along with technical progress in this area. There are currently being implemented modern monitoring systems of railway infrastructure facilities and vehicles, systems detecting defects of railway track and vehicles during movement as well as highly effective and sophisticated systems of rail operation which by their nature improve rail transport safety. New threats appear with technological progress such as disturbances in computer systems' operation which may cause serious disruption in railway operation and its organization. Therefore ensuring cyber security for these systems is of vital importance.

Another crucial issue connected with railway safety is so called safety culture whose task is to develop appropriate procedures to eliminate or decrease the effects of failures of railway traffic signaling, command, control and management systems.

Chapter 1 includes selected threats that may emerge in railway transport, stressing the cost of terrorist attacks in rail transport in Europe. Chapter 2 presents the characteristics of railway transport in the aspect of public safety. Chapters 3 and 4 refer to systemic railway transport safety in the area of safety and security. Chapter 5 concerns safety culture in railway safety that should be created by its users (stakeholders), i.e. administration, carriers, and infrastructure operators. These entities should create the so called organizational and decision-making being connected with railway operation safety. Chapter 6 includes considerations on railway operation safety which should be permanently monitored and follow technical progress implemented in railway transport.

Keywords: rail transport, danger, threat, safety, safety culture