

IMPORTANCE AND ROLE OF NEW TECHNOLOGIES ON ROAD TRAFFIC SAFETY

prof. Sadko Mandžuka, PhD
University of Zagreb
Faculty of Transport and Traffic Sciences
Department of Intelligent Transport Systems

Summary: In the transport engineering of the 21st century we are looking for new ways to achieve safe, efficient and reliable transport, also with minimal impact on the environment and society. The fundamental feature of the proposed solutions is increasing demands by the imperative of lower costs. In Croatia, the priority is the safety of road users, particularly traffic safety in cities. The paper provides an overview of some of the latest technologies that provide a new opportunity to solve traffic safety in cities. Today, it is already a whole class of mature technologies so called Intelligent Transport Systems - ITS. Possibilities of ITS to improve traffic safety can we discuss through the following technology areas: systems related to infrastructure (roads, bridges, tunnels, etc.), systems related to vehicles and systems based on cooperation.

Keywords: Intelligent transport systems, Urban traffic, Traffic safety, Cooperative systems

References:

- [1] I. Bošnjak, *Inteligentni transportni sustavi 1*, Fakultet prometnih znanosti, Zagreb, 2006.
- [2] P. Škorput, S. Mandžuka, N. Jelušić, Real-time detection of road traffic incidents, *PROMET-Traffic&Transportation* 22 (4), 273-283
- [3] I. Bošnjak, S. Mandžuka, Lj. Šimunović, Mogućnosti inteligentnih transportnih sustava u poboljšanju stanja sigurnosti u prometu, *Zbornik radova: Nezgode i nesreće u prometu i mjere za njihovo*, Hrvatska akademija znanosti i umjetnosti, Zagreb 5 (2007).
- [4] Lj. Šimunović, I. Bošnjak, S. Mandžuka, Intelligent transport systems and pedestrian traffic, *PROMET-Traffic&Transportation* 21 (2), 141-152, 2009
- [5] Škorput, P., *Stvarno - vremensko upravljanje incidentnim situacijama*, magistarski rad, Fakultet prometnih znanosti, Zagreb, 2009.
- [6] Mandžuka, S., Matulin, M., Škorput, P., *Napredna telematička rješenja za žurnu medicinsku pomoć*, Znanstveni skup: Medicinski, tehnički i pravni aspekti sigurnosti prometa, Hrvatska akademija znanosti i umjetnosti, Zagreb, 2009.
- [7] S. Mandžuka, Z. Kljaić, P. Škorput, The Use of Mobile Communication in Traffic Incident Management Process, *Journal of Green Engineering* 413-429, 2011.
- [8] Z. Kljaić, S. Mandžuka, P. Škorput, Primjena ICT-a u upravljanju kritičnom infrastrukturom u tranzicijskom zemljama, *Telekomunikacioni forum TELFOR* 18, 75-78, 2010.