



8th INTERNATIONAL CONFERENCE

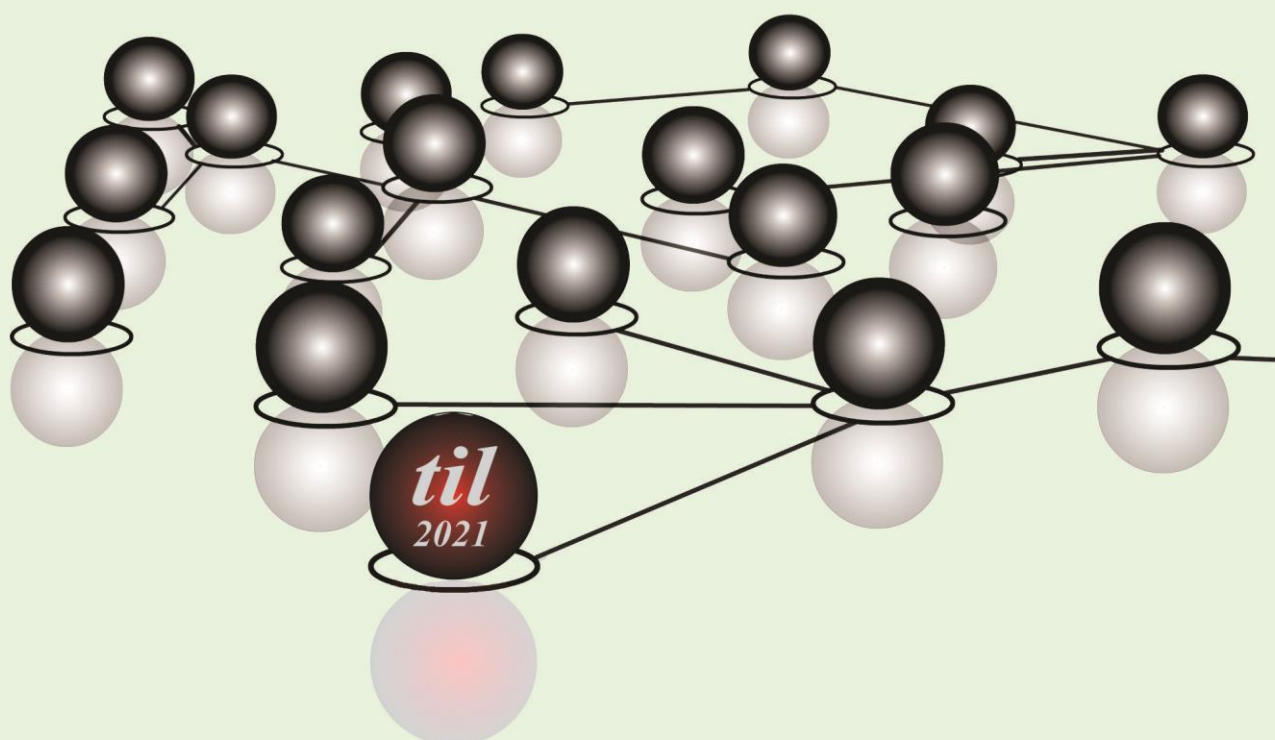
TRANSPORT & LOGISTICS

vehicle routing
inventory control
availability
functions
material flow
storage
structural analysis
production logistics
control
warehousing
maintenance
simulation
optimisation
SCM
transportation
mobile
machines
city logistics
vehicle

material handling
transport machines
management
information flow
ergonomics and industrial design
design
E-business
operation research
VRP
control
traffic safety
management
supply chain
distribution
lean
reverse logistics
management

warehousing
GIS resource
GPS goods
project management
GSM efficient
AHP production
method traffic
supply order
folw system

PROCEEDINGS



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TRANSPORT AND LOGISTICS**

Niš, Serbia 3 December 2021

PROCEEDINGS

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НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА



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FOREWORD

In the field of transport, traffic and logistics, technical systems are created on the basis of strictly rational requirements but completely free forms of solutions and application of the latest technologies. This has led to more efficient systems, better adapted to processes, which in turn has given greater financial sustainability.

The intense global mobility of people, goods and information, with the expected tendency of further growth, indicates the need for education, research and development in the field of transport, traffic and logistics. Evaluating the importance of the development of transport and logistics in the Republic of Serbia and Southeast Europe, in 2002 the European Union, through the TEMPUS programme, adopted and allowed the funding of a three-year project entitled: *The Introduction and Development of a New Study Profile of Transport Flows and Logistics*, which was successfully implemented at the Department of Transport Engineering and Logistics of the Faculty of Mechanical Engineering, University of Niš.

With the aim of presenting the research results and plans in the field of transport and logistics, the Department of Transport Engineering and Logistics of the Faculty of Mechanical Engineering, University of Niš, has thus far organized seven scientific events under the title of Transport and Logistics. The first event was held in 2004, as a symposium, within the TEMPUS project.

The eighth international scientific conference Transport and Logistics – TIL 2021 is being held at the Faculty of Mechanical Engineering in Niš with the old aim but a new and wider scope of the field of transport and logistics, compared with the previous events. The conference is characterized by the participation of a great number of researchers from universities, faculties, institutes and various organizations from Germany, Russia, Croatia, Bosnia and Herzegovina, Macedonia, Libya and Serbia.

Original, review and professional papers contained in the Conference Proceedings encompass the fundamental scientific areas of transport and logistics related to: transport flows, planning and control of logistics systems, design and maintenance of transport machines and vehicles. However, apart from the fundamental areas, the proceedings include, equally and legitimately, a number of papers from the scientific fields whose studies deal with urban mobility, sustainable development, environmental protection and decision-making criteria.

It can be said, as a general conclusion of the Conference, that the intense global mobility of people, goods and information, with the expected tendency of further growth, points to the needs and current trends of future research in the field of transport and logistics.

Asst. Prof. Vesna Jovanović



UNIVERSITY OF NIS
FACULTY OF MECHANICAL ENGINEERING
Department of Transport Engineering and Logistics



PLENARY

DIGITAL TWINS OF RAILWAY JUNCTIONS BASED ON A SIMULATION MODEL

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Rosen Mitrev

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Željko Stević

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