Special Issue:

Use of Modern Software for Investigating Contemporary Problems in Traffic, Laser Scanning, and Earthquake Engineering

and

Digitalization of Work
And New Skills Entry into Entrepreneurship

Guest Editors: Marko Marinković and Mirjana Radović-Marković

Guest Editor Marko Marinković:
Use of Modern Software for Investigating Contemporary Problems
In Traffic, Laser Scanning, and Earthquake Engineering

The first part of this issue discusses contemporary problems and solutions by using modern software solutions in traffic, laser scanning and earthquake engineering. Papers analyzed the topics as follows:

*Paper no. 1, "**Solving the Vehicle Routing Problem in the Open-Source Software 'ODL Studio'**" (by Stančić, Nikola; Kovačević, Jovan; Cvijetinović, Željko; Brodić, Nenad; and Mihajlović, Dragan),* the authors of this study investigated the Vehicle routing problem (VRP) that is important for the organization of the transportation of goods to end users, to minimize the total cost of the routes. They discuss the possibilities of applying open-source software for solving the VRP. The experiment was carried out on the open spatial data from a collaborative project of the virtual community that refers to the territory of Serbia. The authors concluded that the software is easy to use, which can be attributed to the clarity of the interface, but also the interactive tutorials from the official website. Furthermore, they found out that the combination of ODL Studio with OpenStreetMap data provides a free, efficient, robust and affordable alternative to commercial software solutions for the same purpose.

*Paper no. 2 titled "**Airborne Laser Scanning to Digital Elevation Model – LAStools approach**" (by Kovačević, Jovan; Stančić, Nikola; Cvijetinović, Željko; Brodić, Nenad; and Mihajlović, Dragan)* pointed out that the most popular and cost-effective approaches for collecting the Digital Elevation Model (DEM) data are Airborne Laser Scanning (ALS). Therefore, they analyzed the functionality of the LAStools software package for DEM generation. Authors proposed the procedure for generating DEM products from ALS point cloud with LAStools, with its advantages and disadvantages, possibilities and limitations.

*In paper No.3, "**Seismic analysis of a school building with reinforced concrete panels**" (by Praštalo, Gordan), the author described the design procedure for the seismic analysis of a school using an example of a reinforced concrete school building. This paper includes the calculation of required and adopted reinforcement, as well as displacement control, and interstorey drift control, respecting the provisions of modern European codes. Based on the*

calculation results gained from the numerical models made in modern software, certain conclusions were drawn, and some possible solutions were also proposed to potentially improve the building.

*"**Comparative Analysis of Behaviour of Different Constructive Systems of Reinforced Concrete Building Under Earthquake Loading"** (by Bošković, Matija)* is paper No 4, where the author investigated different constructive systems (models) of a reinforced concrete office building and their behavior under the earthquake loading. For each of the numerical models made in modern software for the design of structures, the amount of reinforcement for all structural elements was calculated according to current regulations-Eurocodes. Based on the comprehensive study, the author gave conclusions not only about the advantages and disadvantages of individual models but also about the optimal choice of the structural type from the aspect of human safety, limited damage in the event of an earthquake and the effective amount of installed reinforcement.

We hope that this special issue will provide a contemporary resource for scholars and other readers who are interested in the numerical studies and models that can be used in the field of traffic, laser scanning and earthquake engineering.

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Guest Editor Mirjana Radović-Marković:
Digitalization of Work and New Skills Entry into Entrepreneurship

The second part of this issue discusses the economic and social benefits of digitization and working from home. Papers analyzing this topic are the following:

*In Paper no. 5, "**Digitalization and new skills in the workplace**" (by Radović-Marković, Mirjana),* the author of this study *discussed the competency-based education definition and compares it to traditional education. Also, the study tries to link education based on competencies with success in the workplace. It is concluded that employers must be confident that graduates have not only a theoretical knowledge of a subject but also a strong ability to apply theories to real-work situations. Namely, workers will need to gain new skills to advance their occupations, as compared to only 6% before the pandemic. In this context, reskilling is a top priority by 2025.*

*Paper titled "**Social and economic profiles of remote workers**" (by Radulović Sofija, Todorović Katarina, Radović-Marković Mirjana, Petrušić Irena, and Dragojević Arsen) (No.6),* pointed out that the most significant differences have been noted between freelancers from Montenegro and freelancers from the other three selected countries in the Western Balkans. Firstly, the study showed that freelancers from Montenegro see less positive contributions working in the "Gig Economy" than others, and they significantly more often believe that the "Gig Economy" can't reduce unemployment and prevent brain drain abroad. In line with this, the authors explained the lower prevalence of freelancers, poorer job structure, and lower income with an unfavorable socio-economic status in Montenegro.

*In paper No.7, "**Protective factors at work at home in four countries of the Western Balkans**" (by Radulović Sofija, Đurović Sandra, Marković Dušan, Vučeković Miloš, and Petrušić Irena), the authors described psychosocial adjustment to work at home in the four Western Balkan countries. They investigated similarities, and differences among the countries. At last, they presented the profiles of psychosocial adjustment for each country.*

*"**Impact of psychosocial adaptability to the success of the business from home**" (by Grgurević Nikša, Radulović Sofija, Petrušić Irena, and Maksimović Ana)* is paper No 8, where authors discussed different impacts of psychosocial adaptability of workers at home to the success of their home-run businesses**.** The results of their research are significantly different from the results of foreign research. The only similarity is regarding social isolation, and partly in the fact that the respondents feel overburdened by work at home as well as certain difficulties in separating business from personal life, although, within our samples, these occurrences are slightly less expressed.

In paper no.9," *The influence of information technologies in the development of entrepreneurship* (by *Slađana Vujičić, Oliver Momčilović,* and *Marija Lukić)*, the authors tried to examine the impact of information and communication technologies on the development of entrepreneurship in the Republic of Serbia. Based on the results of an empirical study, this paper concluded that there is a dependence of entrepreneurship on information technologies, i.e. the higher the level of use of information technologies, the higher the level of entrepreneurship development.

We hope that this special issue will provide a contemporary resource for scholars and other readers who are interested in "Gig" economics and the transformation of work models, as well as the socio-psychological consequences of using the Internet and new technologies.

Prof. Dr Mirjana Radović-Marković,

Elected member of Academia Europaea and its Section Committee "Economics, Business, and Management Sciences"