

INSTITUTE OF CRIMINOLOGICAL AND SOCIOLOGICAL RESEARCH

TRAFFIC, CRIMINALITY AND URBAN SAFETY

INTERNATIONAL SCIENTIFIC THEMATIC CONFERENCE

2023



Međunarodni naučni tematski skup
International scientific thematic conference

SAOBRAĆAJ, KRIMINALITET I URBANA BEZBEDNOST

TRAFFIC, CRIMINALITY AND URBAN SAFETY

TEMATSKI ZBORNIK RADOVA MEĐUNARODNOG ZNAČAJA

THEMATIC CONFERENCE PROCEEDINGS
OF INTERNATIONAL SIGNIFICANCE

Palić, 14-15 jun 2023.
Palic, 14-15 June 2023.

Institut za kriminološka i sociološka istraživanja
Beograd, Srbija, 2023
Institute of Criminological and Sociological Research
Belgrade, Serbia, 2023

Izdavač
Institut za kriminološka i sociološka istraživanja
Beograd, Gračanička 18

Za izdavača
Dr Ivana Stevanović
Direktorka Instituta za kriminološka i sociološka istraživanja

Urednici
Dr Ana Batrićević
Dr Dragan Obradović

Recenzenti
Prof. dr Gál István László
Prof. dr Mario Caterini
Prof. dr Stanko Bejatović

Kompjuterska obrada teksta
Slavica Miličić

Dizajn korica
Dr Ana Batrićević

Tehničko uređenje
Milka Raković

ISBN: 978-86-80756-55-4
DOI: 10.47152/Palić2023

Štampa
Pekograf d.o.o., Beograd

Tiraž
300

Održavanje međunarodnog naučnog tematskog skupa podržali su:

MINISTARSTVO NAUKE, TEHNOLOŠKOG RAZVOJA I INOVACIJA REPUBLIKE SRBIJE

Publisher
Institute of Criminological and Sociological Research
Belgrade, Gračanička 18

For Publisher
Ivana Stevanović, PhD
Director of the Institute of Criminological and Sociological Research

Editors
Ana Batrićević, PhD
Dragan Obradović, PhD

Reviewers
Prof. Gál István László, PhD
Prof. Mario Caterini, PhD
Prof. Stanko Bejatović, PhD

Prepress
Slavica Miličić

Cover design
Ana Batrićević, PhD

Technical Editor
Milka Raković

ISBN: 978-86-80756-55-4
DOI: 10.47152/Palić2023

Print
Pekograf d.o.o., Belgrade

Impression
300 copies

International scientific thematic conference was supported by
MINISTRY OF SCIENCE, TECHNOLOGICAL DEVELOPMENT AND INNOVATION
OF THE REPUBLIC OF SERBIA

SMART TOOLS FOR LAW ENFORCEMENT AND CITY SECURITY*

Prof. Endre NYITRAI, PhD*

Prof. Ferenc DÁVID, PhD*

The purpose of the study is to present and summarize the subsystems of the smart city and the concept of the smart city in the light of Hungarian legislation, as well as its essential content elements. The publication analyzes and presents the opportunities provided by smart devices, which not only form the basis of smart cities, but also play a prominent role in law enforcement and city security.

KEY WORDS: *smart city / city security / law enforcement / digitization / smart devices*

INTRODUCTION

Smart devices help police work in parallel with the development of the digital society. However, smart devices also play an important role in the creation and maintenance of a smart city. By using the applications provided by the smart city, we can leave a lot of digital data behind, while criminals can leave a digital trail, which can effectively help the work of law enforcement agencies in the framework of raster and e-investigation. On social media platforms, and by their smart phones, they may leave digital linguistic fingerprints (Ürmösné, 2019, 2023) as well, concerning texting, commenting and sending messages, from which the forensic linguists can draw conclusions (Ürmösné-Nyitrai, 2021).

The digital ecosystem plays a significant role in the field of law enforcement and public safety, as the availability of electronic devices and services and the advanced IT

*Project no. 2022-2.1.1-NL-2022-00012 has been implemented with the support provided by the Ministry of Culture and Innovation of Hungary from the National Research, Development and Innovation Fund, financed under the 2022-2.1.1-NL funding scheme.

* National University of Public Service Faculty of Law Enforcement, Budapest, nyitrai.endre@unke.hu

* Technology Transfer Institute, research fellow; National Laboratory for Cooperative Technologies, david.ferenc@techtra.hu; Lecturer, University of Pécs Faculty of Law, david.ferenc@pte.hu

background promote the efficiency and effectiveness of activities related to crime prevention, as well as reduce the reaction time of law enforcement agencies and speed up the operation of the justice system (NIS, 2014:16.). The basis of the smart city should be the smart police, since the safety, operation and development of the smart city can be hindered by the lack of the smart police.

The study analyzes a number of smart devices and possibilities, which will be continuously expanded and supplemented with technical development. The list is not exhaustive, but it highlights the role that smart solutions play in law enforcement and city security.

1. SMART CITIES

We can come across many concepts in the definition of a smart city. According to Sallai, a smart city displays a multitude of Internet-based applications for the collection and processing of data (Sallai, 2019:54.). According to Szendi, the smart city is a complex concept. It is a city that uses innovative strategy and solutions to improve the quality of life of its residents while making effective use of its creativity and knowledge base (Szendi et al, 2020: 252).

While in the Hungarian legislation the 56/2017. (III. 20.) formulated the concept of a smart city in a government decree, according to which the smart city: a settlement that prepares and carries out its integrated settlement development strategy based on the smart city methodology, while the smart city methodology: settlements or settlements group's settlement development methodology, which develops the natural and built environment, the digital infrastructure, as well as the quality and economic efficiency of settlement services using modern and innovative information technologies, in a sustainable manner, with increased involvement of the population (56/2017. (III. 20.) Korm. rendelet).

However, the terms "smart city" and "smart city methodology" were replaced by the following provision in September 2021: smart city: a settlement or a settlement participating in the joint planning of municipalities that prepares and implements its integrated settlement development strategy based on the smart city methodology (314/2012. (XI. 8.) Korm. rendelet).

The smart city is made up of subsystems, the continuous monitoring of which gives a comprehensive picture of the current conditions and the necessary directions of development. The Hungarian system defines indicators in six subsystems in order to monitor evaluation and development:

- Smart mobility (transportation, freight, multimodal availability, technical infrastructure),
- Livable environment (smart buildings, long-term resource management, climate-friendly city)

- Smart people (inclusion, integration, education, training, creativity) - Smart living conditions (well-being, safety, health)
- Smart governance (online processes, infrastructure, educational and cultural institutions, healthcare, utilities, waste management)
- Sustainable economy (e-economy, innovation, productivity, efficiency, local and global connections) (Dobai et al, 2015:32-33).

The development of the smart city is most determined by the development of the Internet of Things (IoT) in the present and in the future. With their rapid spread, sensors are able to transmit information about public areas, industrial processes, public rooms, the quality of the soil, the purity of drinking water or even our state of health in the long term, at relatively low costs and using little energy. By processing the large amount of incoming data, the police will be able to, if necessary to initiate immediate intervention. An essential condition for creating security, identified as one of the elements of the smart living conditions subsystem, is the rapid flow of information, which, translated into digital language, assumes an online presence. The real-time data flow must be followed by real-time data processing, in order to ensure that optimal and effective measures can be taken without delay in order to maintain security, prevent crimes, and apprehend the perpetrators of violations that have already occurred (Berki, Nyitrai, 2021). The spread of smart city applications and sensors also increases the safety of cities. The same thoughts are available for prisons as well. (Czenczer, 2019)

What refers to the smart security, it requires a new approach to information and processing, and a new system of dynamic analysis and assessment. (Bács, 2020) This dynamic system processes all the information from the big data creating virtual networks from the mass of information, combines and re-combines the networks determining the probability of reasons of events in the past and the probability of possible events in the future, including problems with resource management, traffic failures and criminal activities. (Bács, 2022)

2. SMART DEVICES AND SOLUTIONS

Several sensor devices are and will be helping your city safety in the future. Currently, city security in Hungary is helped by, for example, intelligent zebras, the Veda system, smart benches, or even drones. Most smart devices are equipped with a camera, which also increases public safety. The recordings are analyzed, although different analysis programs can help (Mátyás 2018, 2019). Furthermore, by using the police portal, the authority can get information more quickly, thereby increasing city security.

Both smart devices, camera recordings and internet portals increase objective security and significantly influence the subjective sense of security in a positive direction.

2.1. VEDA and smart cameras

Developments that improve traffic safety include the VÉDA Road Intelligent Camera Network project. The project harmonizes with the existing Hungarian and European Union programs, since the ex post evaluation of the traffic safety action programs pointed out that the control of compliance with traffic rules is key to reducing the number of road deaths and injuries (Berki, Nyitrai, 2021:9-10). The traffic control point created with the camera network contributes to the safety of the city (Chart 1).



Chart 1. VEDA system and smart cameras

The camera network increases the safety of road traffic, rule-following behavior can be checked and maintained, and compliance with traffic rules can be checked. Camera recordings recorded in the VÉDA system can also help in the detection of crimes by checking the number plates of the cars on the recordings to see if they passed the checkpoint at the place and time in question. If the driver can be seen in the car, it may be possible to use the facial image analysis register and the facial image analysis system. Facial recognition plays a significant role in the administration of citizens and in the police in the field of criminal work.

2.2. Entry barriers

Numerous license plate recognition cameras help to filter out cars, for example, when entering Budapest's protected tourist areas. The smart camera identifies the number plate and the barrier is then raised (Chart 2.)



Chart 2. Smart camera

In several places, bollards are installed on the protected road section (Chart3).



Chart 3. Bollards

If the car has an entry permit, the column preventing entry will sink into the ground after reading the license plate number and the car can continue on the road section in question without hindrance. This column prevents unauthorized persons from entering the protected road section, thus preventing, for example, terrorist acts committed by cars.

It is also possible to install spheres, which prevent the car from driving onto the pavement (Chart 4).



Chart 4. Spheres

These columns or spheres are also used in high security risk locations, government buildings, airports or public areas. Columns preventing entry or spheres preventing driving onto the sidewalk also make the city safer.

2.3. Intelligent zebras

The attention-grabbing design of pedestrian crossings is primary in terms of traffic and city safety. It is often found that the pedestrian crossing is difficult to notice even in daytime conditions, because on the one hand, the road markings forming the zebra are worn off, the signs are covered, and on the other hand, the average night lighting does not highlight the crossing sufficiently (Smart Zebra).

The pedestrian crossing, known as a smart or intelligent zebra, is a pedestrian protection system aimed at the safety of pedestrians and the prevention of fatal accidents. The intelligent zebra detects the pedestrian's actual intention to cross and warns cars from both directions with the help of flashing light signals built into the roadway, so that the car drivers can detect from a distance that they will soon have to give way (Okos zebra).

Picture 5 shows when the sensor does not signal, picture 6 clearly illustrates with the help of the light indicator that priority must be given.



Chart. 5. Sensors do not give a signal



Chart 6. Sensors give a signal

In summary, the light indicator can already detect a pedestrian a few meters from the zebra crossing, thereby signaling to drivers that they must stop. The flashing light is visible as long as the pedestrian does not leave the zebra, however, the clearly visible flashing light does not dazzle motorists, so it does not disturb traffic.

The crossing's sensors can count the passage of all pedestrians, cyclists and cars, and even record the speed of vehicles (Új kamerarendszer). The goal is for this warning device to be integrated into the minds of road users, thus increasing the safety of the city.

2.4. Smart columns and smart benches

Smart columns can be important players in the detection of public spaces, which can contain a large number of sensors that can provide information about light conditions, air pollution, and the dynamics of the surrounding traffic.

The smart benches provide Wi-Fi in a narrower environment request for help to use or create an interactive connection in audiovisual form (Chart 7).



Chart 7. Smart benches

In Budapest, several smart benches have been installed in public areas and playgrounds. In addition, intelligent Budapest has been built with a number of smart pillars in the past period (okos oszlop).

The intelligent public lighting poles are suitable for street light emission, thus illuminating public areas, for charging electric cars, as well as for WIFI emission, thus enabling free internet access (Budapest oszlopa). The security camera mounted on the pole is also a surveillance tool, while the emergency button for establishing contact with the police serves the safety of residents and passers-by (Chart 8).



Chart 8. Smart columns

The light fixture located at the top of the smart pole automatically adjusts its brightness depending on whether it detects the movement in its environment. By analyzing crime and law enforcement data, you can get an accurate picture of which points in the area to be protected are the most infected from a criminal point of view, and you can select the neighborhoods where a large number of crowds or groups can be expected to appear. Instead of these, it is advisable to install a smart column. In poorly lit, sparsely built-up, low-traffic neighborhoods, there is a high chance of preventing a crime from being committed with a local alarm that draws attention (perhaps the simultaneous use of sound and light) in the event of an immediate request for help.

Summarize, many sensors can be placed in the columns and several functions can be installed. Among other things, a wi-fi service, a security camera and the emergency call button can be installed, as well as environmental sensors and programmable LED information screens, as well as electric car charging equipment that can be operated with a smart phone application and also indicates the charging status. These options also help the operation of the smart city and can provide additional information to the smart security system. Due to its dynamic capabilities, the latter offers solutions to the emerging problems immediately, in their progress. (Bács, 2020)

2.5. Drones

The unmanned aerial vehicle (English: Unmanned Aerial Vehicle, UAV; hereinafter: drone) is defined in Act XCVII of 1995 on air transport. 35 of § 71 of the Act, according to which "a civil aircraft that is designed and operated in such a way that it is not driven by the person on board."

The drone has become more and more widespread, which can also be explained by that it can be supplemented with several devices (for example thermal and infrared cameras, Wi-Fi, sensors, face recognition, motion detectors), thereby promoting the safety of the city (Chart 9).



Chart 9. Drone

From the point of view of traffic safety, busy road sections can also cost-effectively be checked in real time. and in the case of accidents, it can transmit immediate information, which can help how the authorities group the available forces, tools and methods, since the drone can be the first to arrive at the accidents and be informed about the extent of the emergency (Vigh, 2018:90-91).

The drone can also document the speed of vehicles moving in the city, so drivers can be checked at any time. These functions and possibilities are also intended to promote the safety of the city. It can also help the work of the authority in the prevention, prevention and detection of crimes committed in public areas, as it can record ongoing actions or committed crimes and track the escape routes of the perpetrators (Nyitrai, 2020). Various analysis software can also help in the analysis of camera recordings.

2.6. Application and websites

There are many free city safety apps available on smart phones. With the help of telephone applications, it is also possible to report waste illegally dumped within the city limits, thereby making the elimination of environmental pollution even more effective. Parking applications not only make parking easier, but can also increase city safety, as they can also help detect crimes if the authorities detect and identify the user of the application.

Information communication devices, sensors and applications can help manage the life, traffic and public safety of a city more efficiently. Digital tools and programs are connected to the physical world, which promotes the creation of the smart city and the safety of the city.

It is important for the police to be available digitally as quickly as possible. The police administration portal is available from home at ugyintezes.police.hu (Chart 10).

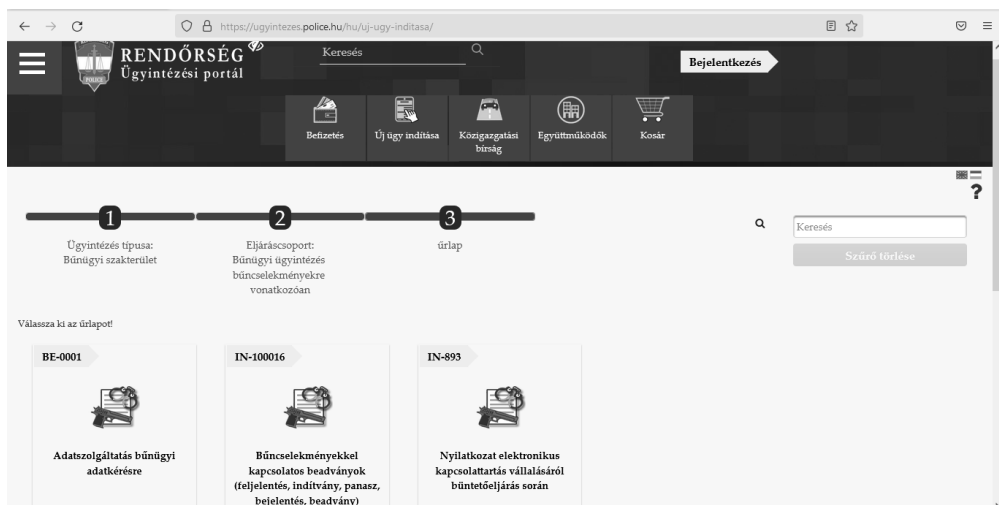


Chart 10. The police administration portal, [police.hu](https://ugyintezes.police.hu)

Most police cases can be easily initiated on the portal, or ongoing ones can be completed online. The incurred costs can be settled using a bank card (Ügyintézés). The

police enables electronic administration with the help of online fillable forms (inNOVA forms) available on the Administration Portal.

Several types of administration (field of expertise) can be selected from the police administration portal:

- criminal,
- control,
- economic,
- border police,
- official assignments,
- official,
- call receiving center,
- administrative police,
- administrative proceedings (judicial review),
- traffic police,
- public order protection.

Within the specialized areas, there are several forms that can be filled in to start the procedure. By clicking on the icon in the area of crime, for example, you can choose from submissions related to crimes (denunciation, motion, complaint, report).

The administration portal of the police can significantly facilitate the administration of citizens in some cases, however, it must be taken into account that in many cases electronic administration will not trigger a personal appearance at the relevant branch (the police).

All the operations initiated and registered through the administration and police portals, also provide information for dynamic security system for crime prevention and investigation purposes. (Bács: 2020) These solutions are applicable for preventing and combating organized crime in its new forms. (Bács, 2021)

SUMMARY

The creation of a smart city makes life easier for city dwellers and creates an ecosystem for city security. Both digitization and modern technical tools play an important role in the formation of the ecosystem. The basis of the smart city must also be the smart police force, which applies modern and innovative information technologies in the performance of its tasks, and is able to use the opportunities provided by digitization, artificial intelligence and digital network research. The opportunities offered by the smart city and the modern technical tools used in this way are already spreading in rural villages, thereby increasing the safety of the villages. The most important role of the tools discussed in the study is in creating security, but it also plays a significant role in prevention and law enforcement.

REFERENCES

1. Bács, Zoltán György (2020): Dynamic matrix method based on information theory in analysis and assessment in counter-terrorism Honvédségi Szemle: A Magyar Honvédség központi folyóirata 148 : Special Issue 2 pp. 132-135.
2. Bács, Zoltán György (2021): Dynamic Asymmetry and Converging Threats Academic and Applied Research in Military and Public Management Science 20: Special Edition pp. 9-17.
3. Bács, Zoltán György (2022): Új, innovatív módszer megalapozása az elemző-értékelő munkában Magyar Rendészet 22: 3 pp. 83-99.
4. Berki, Antal ; Nyitrai, Endre (2021) Mesterséges intelligencia gyakorlati alkalmazásának lehetőségei – okos város, okos rendőrség, (Possibilities of practical application of artificial intelligence - smart city, smart police), Rendőrségi Tanulmányok, 2021/3. sz. pp. 4-47. doi: 10.53304/RT.2021.3.1
5. Czenczer Orsolya: Az alapvető jogok biztosának a Nemzeti Megelőző Mechanizmus keretében végzett vizsgálatai egy bv-s szemével - különös tekintettel a fiatalok szabadságvesztés büntetési intézeteiben végzett vizsgálatokra. Miskolci Jogi Szemle, 2019/2 különszám pp 135-146.
https://www.mjsz.uni-miskolc.hu/files/6546/16_czenczerorsolya_t%C3%B6rdelt.pdf (10.05.2023.)
6. Dobos Klára, Kulcsár András, Nagy Péter, Sik András, Szemerey Samu, Vasváriné Menyhárt Éva (2015): Smart City Tudásplatform – metodika javaslat, (Smart City Knowledge Platform - methodology proposal) Lechner Tudásközpont, Lechner Nonprofit Kft., 2015. pp. 1-84. <https://lechnerkozpont.hu/doc/okos-varos/smart-city-tudasplatform-metodikai-javaslat.pdf> (05.04. 2023.)
7. Mátyás, Szabolcs: The role of hot spot analysis in crime analysis, Magyar Rendészet 2018/1. pp.177-183.
8. Szabolcs, Mátyás: Predictive policing softwares in law enforcement. In: Дикаева, Салмана Умаровича (szerk.) УГОЛОВНАЯ ПОЛИТИКА И ПРАВОПРИМЕНИТЕЛЬНАЯ ПРАКТИКА, Saint-Petersburg, 2019., Oroszország : Supreme Court Russian Federation North-West Branch of the Russian State University of Justice, pp. 443-452. 10 p.
9. Nyitrai Endre: A drónok alkalmazásának lehetőségei a rendőrségi feladatok ellátása során, (Possibilities of using drones in the performance of police duties), Rendőrségi Tanulmányok 2020/1. sz. pp. 94-119.
10. Sallai Gyula: Az okosváros-konceptió és az internettechnológia, (The smart city concept and Internet technology), Dialóg Campus Kiadó. Budapest, 2019. p. 54.
11. Szendi Dóra, Nagy Zoltán, Sebestyén Szép Tekla: Mérhető-e az okos városok teljesítménye? – Esettanulmány a 2004 után csatlakozott EU-tagállamok fővárosairól, (Can the performance of smart cities be measured? – Case study

- of the capitals of the EU member states that joined after 2004), *Területi Statisztika* 2020/2. sz. pp. 249–271. <https://doi.org/10.15196/TS600207>
12. Ürmösné Simon Gabriella: Miben segítik a nyelvi ujjnyomok a nyomozást? *Magyar Rendészet*, 2019/1, pp. 65-75. doi: 10.32577/mr.2019.1.4
 13. Ürmösné S. G, Nyitrai E: The phenomena of epidemic crime, deepfakes, fake news, and the role of forensic linguistics. *Információs Társadalom*, 2021. pp. 86-101. <https://dx.doi.org/10.22503/inftars.XXI.2021.4.5>
 14. Ürmösné Simon Gabriella: A területiség szerepe a forenzikus nyelvészetben – a bűnözésföldrajz és a nyelvészet kapcsolódási pontjai. *Bűnözésföldrajzi Közlemények*, 2023. pp. 43-60. https://rendeszet.unike.hu/document/rendeszet-uni-nke-hu/BFK_2023_1-2.pdf#page=43
 15. Vigh András: A drónok rendészeti alkalmazási lehetőségei, (Law enforcement applications of drones) *Belügyi Szemle* 2018/10. pp. 90–91., DOI: 10.38146/BSZ.2018.10.6

LEGAL SOURCES

16. 56/2017. (III. 20.) Korm. rendelet egyes kormányrendeleteknek az „okos város”, „okos város módszertan” fogalom meghatározásával összefüggő módosításáról [56/2017. (III. 20.) Government decree on the amendment of certain government decrees related to the definition of the concepts of "smart city" and "smart city methodology"]
17. 314/2012. (XI. 8.) Korm. rendelet a településfejlesztési koncepcióról, az integrált településfejlesztési stratégiáról és a településrendezési eszközökről, valamint egyes településrendezési sajátos jogintézményekről [314/2012. (XI. 8.) Government decree on the settlement development concept, integrated settlement development strategy and settlement planning tools, as well as some specific legal institutions for settlement planning]

INTERNET RESOURCES

18. Véda Közúti Intelligens Kamerahálózat (2015), <https://www.police.hu/a-rendorsegrol/europai-tamogatások/operatív-programok/veda-kozuti-intelligens-kamerahalozat#6> 07.05.2023
19. Nemzeti Infokommunikációs Stratégia 2014–2020. 16. o., <https://2010-2014.kormany.hu/download/b/fd/21000/Nemzeti%20Infokommunik%C3%A1ci%C3%B3s%20Strat%C3%A9gia%202014-2020.pdf> 07.05.2023
20. Smart zebra: <https://hofeka.hu/smart-zebra-a-nagyobb-biztonsagert/> 08.05.2023
21. Okos zebra: <https://www.letenyemedia.hu/cikkek/magyarorszag/itt-az-elso-magyar-okos-zebra.html> 08.05.2023

22. Új kamerarendszer: <https://www.vezess.hu/magazin/2022/12/16/zebra-ami-vigyaz-rad-kiprobaltuk-milyen-egy-okos-varos/> 08.05.2023
23. Okos oszlop: <https://itbusiness.hu/technology/okos-oszlopokkal-epul-az-intelligens-budapest/> 08.05.2023
24. Budapest oszlopa: <https://ng.24.hu/tudomany/2015/11/24/budapest-also-okos-oszlopa/> 08.05.2023
25. Ügyintézés: <https://ugyintezes.police.hu/hu/home> 08.05.2023

Prof. dr Endre NYITRAI

Nacionalni univerzitet za javne službe, Fakultet za primenu zakona, Budimpešta

Prof. dr Ferenc DÁVID

Pravni fakultet, Univerzitet u Pečuju

PAMETNI ALATI ZA PRIMENU ZAKONA I GRADSKU BEZBEDNOST

Svrha studije je da predstavi i sumira podсистeme pametnog grada i koncept pametnog grada u svetlu mađarskog zakonodavstva, kao i njegove suštinske sadržajne elemente. Publikacija analizira i predstavlja mogućnosti koje pružaju pametni uređaji, koji ne samo da čine osnovu pametnih gradova, već imaju i istaknutu ulogu u sprovođenju zakona i bezbednosti grada.

KLJUČNE REČI: pametni grad / bezbednost grada / sprovođenje zakona / digitalizacija / pametni uređaji

CIP - Каталогизација у публикацији Народна библиотека Србије, Београд

656.08(082)

351.74/.76:711.4(082)

**МЕЂУНАРОДНИ научни тематски скуп Саобраћај, криминалитет и
урбана безбедност (2023 ; Палић)**

Tematski zbornik radova međunarodnog značaja / Međunarodni naučni tematski skup Saobraćaj, kriminalitet i urbana bezbednost, Palić, 14-15 jun 2023. = Thematic Conference Proceedings of International Significance / International scientific thematic conference Traffic, Criminality and Urban Safety, Palic, 14-15 June 2023. ; [urednici, editors Ana Batrićević, Dragan Obradović]. - Beograd : Institut za kriminološka i sociološka istraživanja = Institute of Criminological and Sociological Research, 2023 (Beograd : Pekograf). - 456 str. : ilustr. ; 25 cm

Radovi na srp. i eng. jeziku. - Tiraž 300. - Str. 17-20: Predgovor = Preface / Ana Batrićević, Dragan Obradović. - Bibliografija uz svaki rad. - Abstracts ; rezimei.

ISBN 978-86-80756-55-4

a) Саобраћај -- Безбедност -- Зборници b) Градови -- Безбедност -- Зборници

COBISS.SR-ID 116824073