



International forum  
**SAFETY FOR  
THE FUTURE**

**SoCMan**  
SECURITY AND CRISIS MANAGEMENT - THEORY AND PRACTICE

**IX INTERNATIONAL FORUM „SAFETY FOR THE FUTURE 2023“**

**IX INTERNATIONAL SCIENTIFIC - PROFESSIONAL CONFERENCE**

# **SECURITY AND CRISIS MANAGEMENT - THEORY AND PRACTICE**

**PROCEEDINGS**



IX INTERNATIONAL FORUM „SAFETY FOR THE FUTURE 2023”

IX Scientific-professional conference  
SECURITY AND CRISIS MANAGEMENT -THEORY AND PRACTICE  
(SeCMan)

September 29<sup>th</sup> and 30<sup>th</sup>, 2023 Belgrade, Republic of Serbia

## FOREWORD

*The international forum **Safety for the Future** arose from the idea and the need to see security problems, and yet separately, through a prism of scientists and experts to bring science, company practice and economy together. The forum contains several important events: the International Scientific Conference "Security and Crisis Management-Theory and Practice", various lectures and workshops, an exhibition of tools and equipment, demonstration exercises on the usage of different assets and equipment in various security activities and numerous debates and discussions with a variety of topics.*

*This year, for the ninth time, we are holding the conference "Security and Crisis Management-Theory and Practice", with new elements of researching security phenomena in the field of crisis management, but also including all related areas. The fact is that the environment in which individuals and legal entities exist is increasingly complex, and the range of phenomena that affect the security of an entity is becoming wider. It consists of familiar and unfamiliar circumstances. Managing those circumstances is possible to a certain extent if there is an optimal and necessary quantum of knowledge. Hence, knowledge is the foundation on which is necessary to build the capabilities of individuals and legal entities to be able to recognize, prevent and react to threats.*

*Crisis management has become an everyday need, essential for the survival of individuals, companies, or society. It is more and more difficult to assess the risk of events with negative effects at the very beginning of their occurrence, and coping with negative consequences leaves harder effects on society. Scientific research of security phenomena has become the priority of society's sustainable development. Scientific knowledge is necessary for systematic knowledge of phenomena in the environment and practice for checking their usability.*

*Scientific findings do not always come to those who perform security tasks, such as individuals or legal entities. Therefore, there is a need for scientists and experts to meet and exchange ideas, opinions, and knowledge. Materialization of knowledge is carried out daily in the process of modern business and management. Exposed to the impacts of a turbulent environment and focused on sustainability, modern business and management require permanent monitoring of changes and adaptation to these changes.*

*Comprehension of the environment in which modern society exists is possible if there is the necessary knowledge of the phenomena that characterize it. That knowledge provides an opportunity for preventive action through an efficient risk assessment system. Only knowledge, formed as a symbiosis of science and profession, has quality and strength, which guarantees the possibility of preventive action and an optimal level of readiness to react to negative events. The resistance of contemporary society to negative events depends on the degree of knowledge development.*

*This year's conference is organized in specific conditions, due to increased danger of a world nuclear conflict. Namely, the world is still facing a serious risk of an outbreak of armed conflict on a global scale. Not analyzing the necessity of solving international disputes through war, it is the fact that in the year 2023 we are standing on the edge of possible war between the Russian Federation and NATO. That automatically implies conflict on a global level. The special military operation, conducted by the Russian Federation on the Ukrainian territory (which lasts more than 500 days), has even strongly triggered a sequence of events which affect the security of the whole world (economy, demography, energy, finances, etc.). This crisis is just another proof that forum **Safety for the Future** properly observes the complexity of the security environment and steers it towards crisis management. Bearing in mind that it is not possible to put all the problems in one Proceedings or to answer all the questions, the*

*forum will continue to deal with the contemporary security challenges, risks, and threats in the future, as well.*

*Proceedings from the IX International Conference — Security and Crisis Management — Theory and Practice, present a new value in the observation of a portfolio of security phenomena at the strategic, company, and individual levels. The papers published in the proceedings are new findings and views of the authors. A wide range of issues confirms the assumption of the necessity of such a conference. The papers presented at the last eight conferences have unambiguously demonstrated the need for regional cooperation and the harmonization of joint capacities. And spreading knowledge becomes a priority in the development of a security culture.*

*The forum represents a review of existing knowledge, a source of new knowledge, assistance to researchers and practitioners in solving security problems, support for those who practically deal with security and a source of an initiative to improve existing knowledge in the field of security, management, and engineering.*

*Besides the conference, throughout the other events and by analyzing different occurrences, the forum contributes further spreading of security culture and merging of theory and practice.*

*We hereby invite all interested scientists and professionals to improve the quality of future publications with their papers.*

***Program Committee***

## PROGRAM COMMITTEE

- Branko Babic PhD, *Higher Technical School of Professional Studies, Novi Sad - Chairman*
- Aleksandar Andrejevic PhD, *EDUCONS University, Sremska Kamenica, Serbia*
- Andrea Andrejevic Panic PhD, *EDUCONS University, Sremska Kamenica, Serbia*
- Goran Andjelic PhD, *EDUKONS University, Faculty of Security Studies, Sremska Kamenica, Serbia*
- Darko Bozanic PhD, *University of Defense, Military Academy, Belgrade, Serbia*
- Marijan Brozovic PhD, *Polytechnic of Karlovac, Croatia*
- Ruggiero Cafari Panico PhD, *Full Professor of European Union Law, University of Milan, Italy*
- Gian Luigi Cecchini PhD, *Full Professor of European Union Law, University of Trieste, Italy*
- Sinisa Domazet PhD, *EDUCONS University, Faculty of Security Studies, Sremska Kamenica, Serbia*
- Drazan Erkcic PhD, *The Republic of Srpska Ministry of the Interior - Police Administration Zvornik, Bosnia and Herzegovina*
- Tatjana Gerginova PhD, *University of St. Kliment Ohridski, Faculty of Security Skopje, Northern Macedonia*
- Ljubomir Gigovic PhD, *University of Defense, Military Academy, Belgrade, Serbia*
- Ladin Gostimirovic PhD, *College of Business and Technical Education, Dobo, Bosnia and Herzegovina*
- Emina Hadzic Dreznjak PhD, *University of Sarajevo, Faculty of Civil Engineering, Bosnia and Herzegovina*
- Predrag Ilic PhD, *Institute for Protection, Ecology and Informatics, Banja Luka, Republika Srpska, Bosnia and Herzegovina*
- Zeljko Ilic PhD, *Republic Administration CZ, Republika Srpska, Bosnia and Herzegovina*
- Vladimir Jakovljevic PhD, *University of Belgrade, Faculty of Security, Belgrade, Serbia*
- Jelena Jesic PhD, *EDUCONS University, Sremska Kamenica, Serbia*
- Radislav Jovicic PhD, *Business and Technical College, Dobo, Bosnia and Herzegovina*
- Dragisa Jurisic PhD, *Security Research Center, Banja Luka, Republika Srpska, Bosnia and Herzegovina*
- Samed Karovic PhD, *EDUCONS University, Faculty of Security Studies, Sremska Kamenica, Serbia*
- Milica Mladenovic PhD, *S4 Glosec Global Security, Belgrade, Serbia*
- Savo Kentera PhD, *Atlantic Alliance of Montenegro, Podgorica, Montenegro*
- Nenad Komazec PhD, *University of Defense, Military Academy, Belgrade, Serbia*
- Tomaz Kramberger PhD, *University of Maribor, Faculty of Logistics Celje, Slovenia*
- Mirjana Laban PhD, *University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia*
- Ivona Shushak Lozanovska PhD, *Faculty of Law, St. Kliment Ohridski University Bitola, Northern Macedonia*

Goran Maksimovic PhD, *Security Research Center Banja Luka, Republika Srpska, Bosnia and Herzegovina*

Nada Marstijepovic PhD, *Faculty of Maritime Studies, Kotor, Montenegro*

Marina Mihajlovic PhD, *University of Belgrade, Faculty of Technology and Metallurgy, Innovation Center, Belgrade, Serbia*

Aleksandar Milic PhD, *University of Defense, Military Academy, Belgrade, Serbia*

Branislav Milosavljevic PhD, *University of UNION Nikola Tesla, Faculty of Business Studies and Law, Belgrade, Serbia*

Dragan Mladjan PhD, *Criminal Police University, Belgrade, Serbia*

Nenad Mustapic PhD, *Polytechnic of Karlovac, Croatia*

Vesna Nikolic PhD, *University of Nis, Faculty of Occupational Safety Nis, Serbia*

Dragan Pamucar PhD, *University of Belgrade, Faculty of Organizational Sciences, Belgrade, Serbia*

Ruggiero Cafari Panico PhD, *Full Professor of European Union Law, University of Milan, Italy*

Aca Randjelovic PhD, *University of UNION Nikola Tesla, Faculty of Business Studies and Law, Belgrade, Serbia*

Tomislav Radovic PhD, *Faculty of Management Zajecar, Megatrend University, Belgrade, Serbia*

Momcilo Sakan PhD, *Independent University of Banja Luka, Bosnia and Herzegovina*

Slobodan Simic PhD, *Security Research Center Banja Luka, Republika Srpska, Bosnia and Herzegovina*

Augusto Sinagra PhD, *European Union Law, University of Rome "La Sapienza"*

Miomir Stankovic PhD, *University of Nis, Faculty of Occupational Safety Nis, Serbia*

Katarina Strbac PhD, *Faculty of Engineering Management, Belgrade, Serbia*

Jovan Vucinic PhD, *Polytechnic of Karlovac, Croatia*

Nahla Yassine-Hamdan PhD, *American University in the Emirates, College for security and global studies, Dubai, United Arab Emirates*

Dusko Tomic PhD, *American University in the Emirates, College for security and global studies, Dubai, United Arab Emirates*

Eldar Saljic PhD, *American University in the Emirates, College for security and global studies, Dubai, United Arab Emirates*

Dr.h.c.. mult. Mgr. JUDr. Jozef Zařko, PhD., MBA, LL.M, Honor. Prof. mult., *Európsky inštitút d'alsieho vzdelávania, Podhájska, Slovensko*

Peter Plavcan PhD, *Danubius University, Sládkovicovo, Slovak Republic*

Marija Vukic PhD, *IRC Alfatec, Nis, Serbia*

Zeljko Zoric PhD, *Sector Security Company, Banja Luka, Republika Srpska, Bosnia and Herzegovina*

Dragana Kosic Msc, *Sector Security Company, Banja Luka, Republic of Srpska, Bosnia and Herzegovina*

Tatjana Bojanic, *Institute for Standardization of Serbia, Belgrade, Serbia*

## **ORGANIZING COMMITTEE**

Milica Mladenovic, PhD, *S4 GLOSEC Global Security, Belgrade, Serbia, Chairman*

Slavica Dabizljevic, PhD candidate, *RASEC, Belgrade, Serbia*

Maja Mijatovic, MSc, *S4 GLOSEC Global Security, Belgrade, Serbia*

## IMPRESSUM

### *Editorial*

Komazec Nenad, PhD, Belgrade, Serbia  
Babic Branko, PhD, Novi Sad, Serbia  
Dragan Mladjan, PhD, Belgrade, Serbia

### *Publisher*

Regional Association for Security and Crisis Management-RASEC  
S4 GLOSEC Global Security

### *Reviewers*

Kramberger Tomaz, PhD – Slovenia  
Karovic Samed, PhD – Serbia  
Strbac Katarina, PhD – Serbia  
Pamucar Dragan, PhD – Serbia  
Babic Branko, PhD – Serbia  
Jurisic Dragisa, PhD – Bosnia and Herzegovina  
Bozanic Darko, PhD – Serbia  
Komazec Nenad, PhD – Serbia  
Maksimovic Goran, PhD – Bosnia and Herzegovina  
Tatjana Gerginova, PhD – North Macedonia  
Milic Aleksandar, PhD – Serbia  
Slobodan Simic, PhD – Bosnia and Herzegovina  
Mladjan Dragan, PhD – Serbia  
Domazet Sinisa, PhD - Serbia

### *Design*

Mladenovic Milica, PhD  
Komazec Nenad, PhD

### *Edition*

75 copies

### *The press:*

Stamparija Donat Graf, Grocka, Belgrade

### *ISBN*

978-86-80692-10-4

### **Notes:**

*The authors opinions expressed in this book do not necessary reflect the views of the institution in which they are employed*

*All papers are reviewed and checked for plagiarism*

*Papers which express any form of discrimination shall not be published*





## CONTENT

1. GEOSTRATEGIC IMPLICATIONS OF THE RUSSIAN-UKRAINIAN CONFLICT <i>Bozidar Forca</i> .....	17
2. CHALLENGES OF CRITICAL INFRASTRUCTURE PROTECTION IN CONTEMPORARY SECURITY ENVIRONMENT <i>Dragisa Jurisic</i> .....	41
3. MASS SURVEILLANCE AND PRIVATE COMPANIES <i>Sinisa Domazet</i> .....	48
4. REVIEW OF THE RISKS OF AUTONOMOUS WEAPONS <i>Katarina Jankovic, Nenad Komazec, Drazan Erkcic</i> .....	54
5. ONE APPROACH TO DETERMINING THE DANGERS TO THE SECURITY- INTELLIGENCE SYSTEM OF THE REPUBLIC OF SERBIA <i>Nenad Kovacevic, Antonio Mak, Zoran Karavidic</i> .....	63
6. CRITICAL INFRASTRUCTURE PROTECTION IN SOME BALKAN COUNTRIES IN COMPARISON WITH BOSNIA AND HERZEGOVINA <i>Zeljko Zoric</i> .....	71
7. RIGHTS AND OBLIGATIONS OF THE CITIZENS IN EMERGENCIES <i>Slajana Eric</i> .....	78
8. EMERGENCY HEADQUARTER'S "TABLE TOP" EXERCISES IN LOCAL GOVERNMENTS <i>Dragisa Jurisic</i> .....	83
9. THE POSSIBILITY OF USING AN AIRBAG AS AN ALARM FOR INJURIES AT WORK <i>Predrag Vasiljevic, Milorad Danilovic, Slavica Antonic</i> .....	90
10. PERSONAL DATA PROTECTION – FRAMEWORKS, PRACTICAL EXPERIENCES AND CHALLENGES <i>Radoslav Rakovic</i> .....	95
11. RESCUING FROM THE RUINS <i>Branko Babic</i> .....	106
12. COUNTERING THE THREAT OF UNMANNED AERIAL SYSTEMS TO CRITICAL INFRASTRUCTURE <i>Goran Maksimovic</i> .....	113
13. RISK MANAGEMENT DURING THE PANDEMIC <i>Goran Bozic, Hatidza Berisa</i> .....	124
14. COMPARATIVE ANALYSIS OF NATIONAL SECURITY STRATEGIES <i>Bozidar Forca</i> .....	132
15. TOOLS TO REDUCE VULNERABILITY FROM HYBRID THREATS <i>Tatjana Georginova</i> .....	144

16. LEGAL REGULATION AND CONTROL OF THE SECURITY SYSTEM OF THE REPUBLIC OF SERBIA <i>Zorana Ivetic, Jovanka Tosic</i> .....	152
17. CURRENT STATE OF EMERGENCY MANAGEMENT IN THE REPUBLIC OF SERBIA <i>Jovanka Tosic, Zorana Ivetic</i> .....	161
18. MILITARY APPLICATION OF ARTIFICIAL INTELLIGENCE <i>Milan Miljkovic, Hatidza Berisa, Srdjan Zgonjanin</i> .....	169
19. METHODOLOGICAL PROBLEMS OF DESIGNING RESEARCH IN SAFETY SCIENCES <i>Samed Karovic, Jovanka Tosic, Zorana Ivetic</i> .....	175
20. ASPECTS OF MACHINE LEARNING IN HUMANITARIAN DEMINING PROCESSES <i>Dejan Blagojevic, Gordana Jovic, Aleksandar Milic, Bojan Glamoclija</i> .....	184
21. ENERGY SECURITY AT THE CORPORATE LEVEL <i>Radislav Jovicic</i> .....	191
22. STRATEGIC MANAGEMENT IN CBRN EVENTS: APPLICATION OF WORD ASSOCIATION TEST <i>Halil İbrahim Çiçekdağı, Fatime Ökenek, Yıldız Tosun</i> .....	201
23. ENERGY SECURITY AS A PARADIGM OF CONTEMPORARY GEOPOLITICS <i>Srdjan Zgonjanin</i> .....	213
24. BEST PRACTICES IN CIVIL PROTECTION MANAGEMENT: IDENTIFYING CHALLENGES, RECOMMENDATIONS, AND INTERNATIONAL CASE STUDIES <i>Katarina Strbac, Branislav Milosavljevic</i> .....	222
25. MODERN ARMED CONFLICTS AND RESERVE MILITARY FORCES <i>Hatidza Berisa, Goran Korsev</i> .....	230
26. SYSTEMATIC APPROACH TO RESOLVING CRISIS DUE TO EPIDEMIC/PANDEMIC DISEASES <i>Slobodan Simic</i> .....	237
27. RIVER BASIN WATER RETENTION CAPACITY COUPLING WITH NBS FOR HYDRO-METEOROLOGICAL DISASTER RISK REDUCTION <i>Branislava Matic</i> .....	243
28. PERFORMING MOBING IN THE PUBLIC SECTOR <i>Leon Vedenik</i> .....	250
29. ANALYSIS OF COMPLIANCE OF VALJEVO DISASTER RISK ASSESSMENT WITH METHODOLOGY <i>Srecko Vukovic, Serif Bajrami, Katarina Jankovic</i> .....	259

30. APPLICATION OF SIMULATIONS IN TARGETING TRAINING <i>Zeljko Jokic, Aleksandar Aleksic, Marko Radovanovic.....</i>	266
31. THE ROLE OF THE SERBIAN ARMED FORCES IN THE SYSTEM OF PROTECTION AND RESCUE IN FIGHTING NATURAL DISASTERS - A CASE STUDY OF THE FLOOD OF 2014 IN THE REPUBLIC OF SERBIA <i>Serif Bajrami, Stefan Pusulic.....</i>	272
32. SIMULATIONS AND THE QUALITY OF MILITARY EDUCATION <i>Nenad Komazec, Aleksandar Milic, Aleksandar Petrovic.....</i>	278
33. FOREST FIRES AND CLIMATE CHANGES IN THE REPUBLIC OF SERBIA <i>Jelena Lazarevic, Nikola Vukojevic, Jovica Milicevic.....</i>	286
34. RESPONSE OF THE ARMY OF SERBIA TO NON-MILITARY THREAT - MIGRATION <i>Nikola Banjac, Nenad Komazec.....</i>	294
35. PERCEPTION OF CIVIL DEFENSE'S STATE IN THE REPUBLIC OF SERBIA <i>Milica Mladenovic.....</i>	305
36. THE DIBR-SAW MODEL FOR THE SELECTION OF LOCATION FOR OVERCOMING WATER BARRIER WITH DEEP DRAFT <i>Katarina Dojic, Darko Bozanic, Jovica Milicevic.....</i>	313
37. HYDROTECHNICAL AND HYDROLOGICAL CONDITIONS FOR NAVIGATION IN THE CHANNELS OF THE DANUBE-TISA-DANUBE HYDROSYSTEM <i>Milorad Tesanovic, Vladimir Matijevic, Svetislav Soskic.....</i>	320
38. WAREHOUSE OPERATIONS SIMULATION FOR SAFETY IMPROVEMENT <i>Tomaz Kramberger, Bojan Rupnik.....</i>	333
39. RISK ASSESSMENT DURING IMPLEMENTATION OF EXERCISES WITH MINE EXPLOSIVE ORDNANCE <i>Stefan Pusulic, Aleksandar Milic.....</i>	340
40. CAMOUFLAGE, CONTENT OF RESOURCE PROTECTION, FOLLOWING EXPERIENCES FROM UKRAINE'S ARMED CONFLICT <i>Aleksandar Milic, Dejan Blagojevic, Srdjan Kostic.....</i>	346
41. CHARACTERISTICS AND CONSEQUENCES OF NATURAL DISASTERS IN THE TERRITORY OF THE REPUBLIC OF SERBIA <i>Nikola Vukojevic, Stefan Tosic, Aleksandar Petrovic.....</i>	355
42. STRATEGIC DIMENSIONING OF THE DEFENSE SYSTEM OF THE REPUBLIC OF SERBIA BASED ON THE PHYSIOLOGY OF MODERN ARMED CONFLICTS <i>Katarina Jankovic, Srecko Vukovic, Slavica Dabizljevic.....</i>	363

## METHODOLOGICAL PROBLEMS OF DESIGNING RESEARCH IN SAFETY SCIENCES

Samed Karovic<sup>1a</sup>, Jovanka Totic<sup>2b</sup>, Zorana Ivetic<sup>3c</sup>

<sup>1</sup> Educons University, Faculty of Security Studies, Vojvode Putnika 87, Sremska Kamenica, Republic of Serbia, samed.karovic@educons.edu.rs

<sup>2</sup> Educons University, Faculty of Security Studies, Vojvode Putnika 87, Sremska Kamenica, Republic of Serbia, jovanka.totic@educons.edu.rs

<sup>3</sup> Educons University, Faculty of Security Studies, Vojvode Putnika 87, Sremska Kamenica, Republic of Serbia, zoranaivetic@yahoo.com

Received: 4<sup>th</sup> July 2023

Accepted: 31<sup>th</sup> July 2023

Review paper

**Abstract:** *Designing scientific research in the sciences of safety is essential for achieving quality results, efficient use of resources, protecting ethical principles and contributing to scientific knowledge in the field of security. The paper describes the elements of designing research in safety sciences with a focus on the research project for the preparation of the doctoral dissertation.*

*Bearing in mind that the methodology of scientific research is the basis for successful conduct of scientific research, the emphasis is on the basic problems that arise when choosing research problems, defining research subjects, selection of samples, ethical issues, validity and reliability of data and interdisciplinarity.*

*These methodological problems are just some of the challenges that can be faced in the design of scientific research in the preparation of doctoral dissertations in the sciences of safety.*

**Key words:** *methodology of scientific research, security science, research design, validity and reliability of data, ethical issues*

### 1. INTRODUCTION

Designing research in safety sciences is essential for defining research objectives, selecting the appropriate methodology, collecting relevant data, analyzing them and interpreting the results. Due to the specifics and characteristics of the safety sciences, the design of research requires and certain stages and steps, thus gaining the complexity and necessity of complying with established standards and procedures.

---

<sup>a</sup> ORCID: 0000-0001-5470-4650

<sup>b</sup> ORCID: 0000-0001-6025-3542

<sup>c</sup> ORCID: 0000-0003-0629-8189

During many years of work and dealing with the methodology of scientific research, problems have crystallized in the design of research in the sciences of safety in the field of solving certain scientific problems that are often present with doctoral students and designing for the preparation of doctoral dissertations. The paper presents the basic elements of designing research with a focus on the scientific idea, and the key part that conditions other elements of scientific thought.

Also, the paper deals with the specifics of security sciences and their relationship with the most related sciences, primarily military and political sciences. This part is very important, because in research in the field of security sciences there are also "experts" from the aforementioned sciences, which makes it difficult to classify and mix certain problems in safety sciences. This is one of the issues that affects the number of scientists at certain institutions and whose views prevail in this case. But it's a special topic to consider on another forum.

The following specifically deals with the design of research in the sciences of safety and finally precisely defines the problems that are current in the field of designing research in the sciences of safety with some elements of guidelines that need to be in mind for design and research in the safety sciences to be scientifically verified and reflect the correctness of research and contribute to the development of safety sciences.

## **2. SECURITY SCIENCES**

In the scientific ("Official Gazette of RS", 114/2017 and 24/2020) field of social sciences and humanities, they were classified as a security auxiliary and given the status of science. Bearing in mind the status of science, it should be noted, if the same as M. Markovic: "Science is objective, critical, methodically derived knowledge [...], whose goal is to establish the objective truth about reality." (Markovic, 1994) Markovic further points out, "in order to achieve this goal, science uses certain socially accepted research procedures and appropriate criteria for evaluating whether a particular research result should be accepted as true or not", (Markovic, 1994).

In this particular case, as M. Markovic pointed out again (Markovic, 1994), "the concept of knowledge (as well as the concept of truth) implies an object to which it relates and which is learned from a certain human perspective. In this case, every science has its own subject." Also, the concept of cognition implies a certain way of knowing, that is, a subjective practice by which one comes to the awareness of the object, which is the method", (Markovic, 1994).

Given the foregoing, the subject of security is the study and analysis of all aspects of security, including political, military, economic, social and technical dimensions. The aim of security education is to understand and understand the source and, nature and consequences of threats and challenges to security, as well as to develop strategies, policies and safeguards to ensure the safety of societies, organizations and individuals. In this sense, the sciences of security belong to the applied sciences "[...] which deal directly with practical problems and contain not only explanations of immediate experiential phenomena, but instructions for control and practical mastery of them. Most expressions of their language are descriptive, concrete, single or low degree of generality, methodologically, the focus is on technical data collection and classification, (Markovic, 1994).

From the point of view of the object of safety science, it can be concluded that it covers all aspects that are relevant to security, which includes international relations, military strategy, terrorism, crime, cybersecurity, global risks, crisis management, transport safety, energy, environmental protection and other areas that may have an impact on security. Precisely because of the width of the facility, the science of safety includes it and various disciplines and areas of research. The interdisciplinary approach is key to understanding and solving

complex security challenges, and security science will use knowledge in the fields of political science, international relations, military strategy, sociology, psychology, law, technology and other relevant disciplines.

In particular, it should be emphasized that security sciences have broader scope and are studied by various aspects of security at the global, national and individual levels. The science of security covers analysis of threats and challenges that threaten security, including terrorism, crime, cybersecurity, natural disasters, economic crises and other risk factors. At the same time, security sciences encompass multidisciplinary approaches in the fields of politics, law, sociology, psychology, technology and other disciplines in order to understand the nature of security challenges and develop strategies to overcome them. In this case, it is also important to note the relations between the sciences of security, military and political science.

### **1.1. The relationship between security sciences and military sciences**

It is important to understand the relationship between military science and security sciences because both received classification at the same time. The subject of military science is primarily related to armed struggle. The sciences are a multidisciplinary field that deals with the study of military operations, strategies, tactics, technologies and organizations. The aim of military sciences is to understand and apply principles and concepts that are essential for military activities, including war planning, operations management, and military logistics. Include the study of historical conflicts, military theory, military doctrine, and the application of military technology. Their main orientation is on military operations and aspects that are directly related to armed struggle.

It should be noted that even if there are overlaps between military science and security sciences, military science is usually oriented towards the military aspects of security, while the sciences of security have a wider range of interests that include the civilian aspects of security. However, both fields can benefit from the exchange of knowledge, methodologies and experience, especially in areas such as crisis management, strategic planning, threat analysis and risk assessment.

In today's complex security environment, cooperation between military science and the sciences of security is becoming increasingly important in order to better understand and address contemporary security challenges and threats.

### **1.2. The relationship between security science and political science**

What to keep in mind when it comes to political science and security science and how to make a distinction between them, it is necessary to look at the following:

1. Political sciences are mainly concerned with the study of political institutions, political processes, political systems, political theories, and political behavior. On the other hand, security sciences focus on the study of factors that affect national and international security, such as military strategy, terrorism, conflict, information security and the like.
2. When it comes to research, political science tends to understand political phenomena, processes, and systems in order to better understand political behavior and political decision-making. In contrast, security science studies the factors that influence security, in order to identify sources of threats, assess vulnerabilities, and develop protection strategies.
3. A particular aspect in the methodology of political science and security science research is that the political sciences use a variety of methodologies, including field research, political document analysis, interviewing, and statistical analysis. The security sciences

also use these methods, but often rely on intelligence analysis, security assessments, scenarios, and models.

4. A special relationship between these sciences is interdisciplinarity, which can be characterized in the fact that both political science and security science are areas that use concepts and approaches from other disciplines. Political science often relies on sociology, economics, philosophy, and history, while the sciences of security include elements of political science, international relations, military science, information security, and other related disciplines.
5. Finally, what should be particularly emphasized is that secretaires have a strong applied dimension, with the aim of providing guidelines for risk management, ensuring national security, implementing appropriate policies and decision-making. Political science, on the other hand, is often oriented to theoretical research and understanding of political phenomena.

So, these are key elements when it comes to the relationship between security science and political science, especially in the sphere of research. Unfortunately, in practice, it often happens that in the design and preparation of doctoral dissertations, the problem of research is replaced and the problems of political phenomena are classified into security problems and vice versa.

### **3.DESIGNING RESEARCH IN THE SCIENCES OF SAFETY**

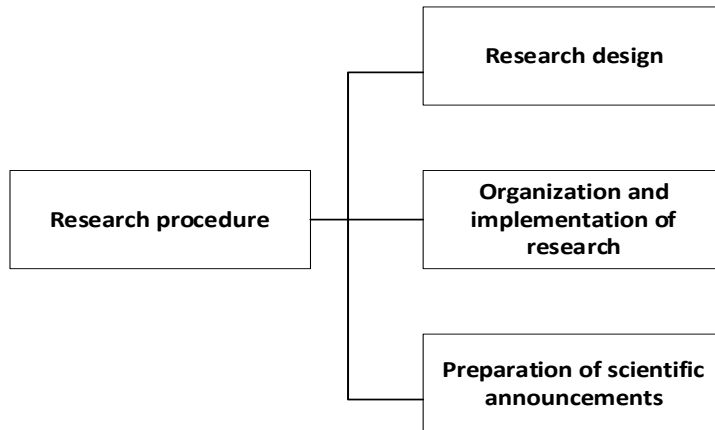
The design of research in the social sciences, which includes the science of safety, depends on the characteristics of the subject being researched. The subject of research in this area is so complex "[...] that it is not possible in scientific inquiry to include it in what is commonly called research methods", (Vujevic, 1983). The design of research involves meaningful, primarily mental activity in the development of a research project. As Milosavljevic M. points out, "it is a dynamically synchronized and coordinated system of interconnected and conditioned scientific and professional activities; mostly creative ones that are creating a research project", (Milosavljevic, 1980).

In this regard, the projection of research in the sciences of safety involves a series of steps that need to be carried out to define the problem of research, the subject of research, objectives and research, research hypotheses, method of research (methodology), collection of relevant data and analysis a Results. As a result of the design, a project is created that has its own characteristics, functions and parts.

The project is an imaginary model of [...] the acquisition of (scientific) knowledge about the subject of research, [...] it is an imaginary target, purposeful, rational and functional system and [...] a scientific and operational-organizational document" (Milosavljevic, 1980). In the end, it can be concluded that the project is an imaginary theoretical and practical model of acquiring scientific knowledge about the problem and the subject of research. It is, as The Merciful Says, "[...] expresses: first, idea – basic attitudes about the problem and subject of research; secondly – the idea of thought processes, techniques, means and procedures by which true scientific knowledge will be obtained", (Milosavljevic, 1980). It can be concluded that the design comes to the model, i.e. The whole we are [...] in their consciousness constructed and shaped on the basis of scientific and experiential knowledge, imagination, inspiration – through thinking according to the rules of logic. This model is expressed in appropriate language, signs, symbols, usually in writing and graphically in the form of a document called a research project", (Milosavljevic, 1980).

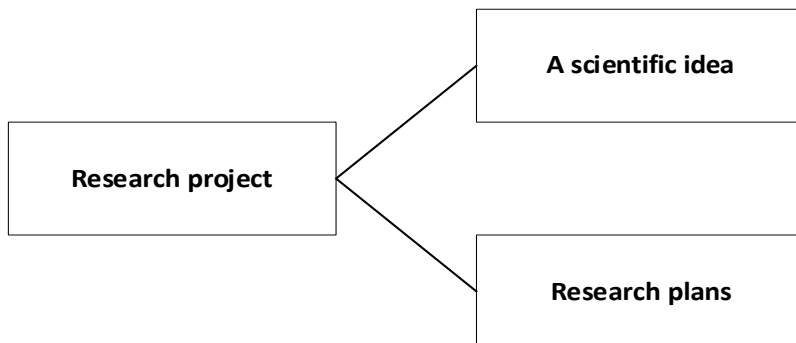
It should be noted, as Pointed out by Mihailovic D., "[...] The research project can be compared to a chess game. In it are firmly established the basic rules, what is the starting position of the figures, how they can move... [...] similar to a chess game and a research project is a kind of "mental game". There are well-known, generally accepted, firm rules by which research is conducted. The principles of methodological means and the order in their use shall be respected", (Mihailovic, 1999).

In order to understand research in the sciences of safety, it is important to present the structure of the entire research process. It is simply an established rule of research conduct methodology and is a consistent set of activities carried out during research in order to obtain objective, concrete and general and sufficiently critical and verifiable knowledge in the field in which the research is carried out. The research process is shown in Figure 1.



**Figure 1.** Research process  
*Source: Editing by authors*

As you can see in the picture, the first element is the design of research. It should be emphasized that successful design in a particular area of research conditions fundamental knowledge in the theory and practice of a specific field, logic, methodology and other specific areas that are important for concrete research. As a result, a fully elaborated research project is created, the structure of which is shown in Figure 2.

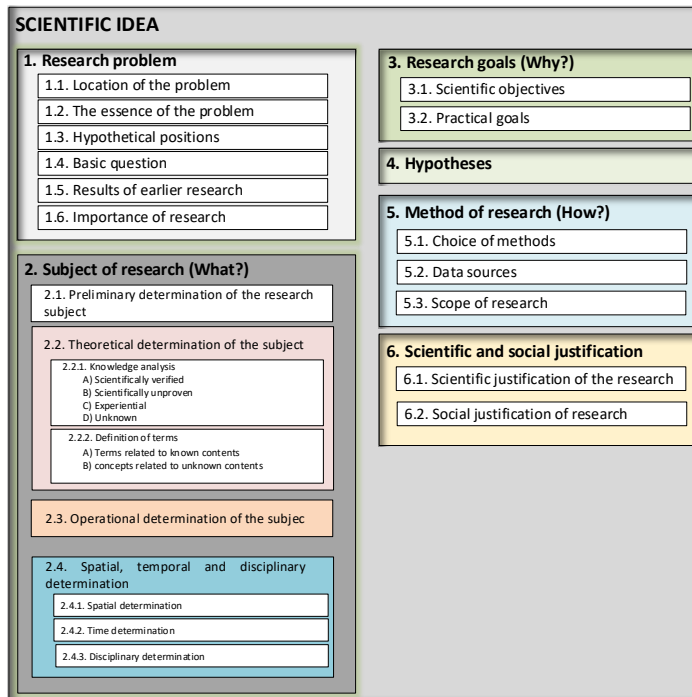


**Figure 2.** Structure of the research project  
*Source: Editing by authors*

The paper is oriented on the scientific idea that is structurally shown in Figure 3. In this context, within the framework of the scientific concept, three key questions are answered:



1. What's being investigated?
2. Why is it being investigated and
3. How is it investigated?



**Figure 3.** The scientific idea of research

*Source: editing by authors*

On each of the above questions, as pointed out by Milosevic N." [...] the answer is given through certain parts of the scientific idea" (Milosevic, 1989). The concept of designing research in the sciences of safety is that security is a term that refers to a state of freedom from risk, danger or adverse events. It refers to the protection of individuals, groups, organizations or states from potential threats or harmful influences. Security can be physical, psychological, financial, traffic, cyber, and many other types.

In particular, it should be borne in mind that security is a multidisciplinary area that studies the phenomena and factors that affect security and develops strategies, techniques and methods of protection. It uses knowledge and methodologies from various disciplines such as political science, sociology, psychology, technology, law, economics and information technology to analyze risks, identify potential threats and develop effective ways of responding. Discusses how to identify, analyze and manage various sources of danger in order to reduce the chances of damage or loss. It also explores how people, organizations and societies can prepare for emergencies, how to deal with them when they occur, and how to minimize their consequences.

All of the above elements have a complex impact on the design of research in the sciences of safety, especially on the design of research in the context of doctoral dissertations. The essence of the paper primarily refers to the design of research in the preparation of doctoral dissertations and the treatment of topics, the choice of research problems and the mixing of problems for which it is not necessary to "engage" science.

The methodology of scientific research has been in crisis for many years. Every mention of the methodology of scientific research carries the epithet that it is in crisis. It should be borne in mind that many scientists run away from the methodology of scientific research and that the biggest problems arise precisely in the design of research.

#### **4. DESIGN AND RESEARCH PROBLEMS**

On the problems of designing research in the sciences of security, we must first start from the fact that deduction safety (aka security science) is to be used in the field of safety. security science is a multidisciplinary field that studies the causes, factors and protection measures associated with safety. It deals with research, analysis and understanding of various aspects of security in order to identify risks and threats, develop appropriate protection models and strategies, as well as effective interventions to reduce or eliminate risks. It is precisely the stated property of the sciences of security that makes it difficult to design research, especially the selection and formulation of research problems, research objects, hypotheses, ways of research, data processing and the verification of hypotheses.

In particular, it should be noted that security sciences use various methods of research, data analysis, modeling, simulation and use of technological tools to provide effective strategies and solutions for the prevention, detection, response and recovery of security threats. It also deals with ethical, legal and political issues related to security.

The basic design problems in the safety sciences can be summarized as follows: defining the problem of research, selection of the sample, validity and reliability of the sample, the verification of hypotheses, ethical issues and interdisciplinarity.

The part concerning the design of research in the sciences of safety and which is the basis is the problem of research. As Zajecaranovic G. pointed out, "The problem is therefore a kind of question and it is the kind of questions that cannot be answered based on the available knowledge... Not all problems are scientific problems. The scientific problem is only that which contributes to the enrichment of scientific knowledge, that is, that problem which, when solved, contributes to the development of scientific knowledge" (Milosevic, 1989).

Thus, the draft of the scientific idea begins with the formulation of the research problem where the connection between the scientific-theoretical fund and the concrete research project is established. It contains a cross-section of pre-existing theories and significant research in the field of problems that are to be investigated (Mihailovic, 1999). This is one of the elements concerning design and which in the formulation of the research project bypasses and does not understand. That is why difficulties arise because the problem of research is often identified and confused with the subject of research. It should be noted that the problem of research is broader than the subject of research and surpasses other parts of the research project. Therefore, in security sciences, problems can often be complex and insufficiently precisely defined. That is why it is important to carefully formulate a research problem to ensure clarity and direction of research.

Of course, it should be further noted and ambiguities concerning hypotheses, their role in research, in particular, determining the level of scientific knowledge, indicators and instruments. The relationship between the importance of hypotheses in the research and testing of hypotheses in statistics is often identified, thus creating general confusion in the verification of hypotheses and the results of the research. All this affects the production of reports, their quality and essentially the results of the research.

When it comes to the assembly of the appropriate sample for research, it should be noted that it is done with a limited number of participants that may be difficult to reach, such as e.g.

soldiers, members of the police force or other special units. Such challenges can make it difficult to generalize survey results to the entire population.

Collecting relevant data in the sciences of security, or data science in general, is a challenging job that is conditioned by indicators and a built instrument. Limited access to information, inconsistency or unreliability of data, as well as their interpretation, can affect the validity and reliability of research results. Therefore, it is important to apply appropriate methods of data collection and analysis to ensure their accuracy and reliability.

It should be especially emphasized the method of verification of hypotheses, because simply in the statements the researchers state in the conclusions that the hypotheses are verified, and in the presentation of the results of the research there is absolutely no argumentation. It is important to note, as Basic M. points out, "[...] Hypotheses are a tool that has the function of testing a theory, [...] therefore a hypothesis must be formulated in such a way that its verification is possible, and this is feasible only in a situation where its formulation expresses a theoretical predicament in accordance with the concrete social conditions of research ... it is necessary to transform the research question into a hypothesis that will be a guide in the process of research and which will thus help us to assess the adequacy of the theoretical explanation offered" (Besic, 2019).

Another element that should not be ignored, and concerns ethical issues. Bearing in mind that scientific research in the field of security often deals with sensitive topics, such as terrorism, crime, conflict and other types of violence, it can raise a number of ethical questions regarding the protection of the rights and personal data of research participants, as well as the correct interpretation and use of the research results. It is necessary to carefully consider the ethical aspects of research and ensure compliance with ethical guidelines.

It is inconceivable in modern conditions that scientific research is of an intradisciplinary character. Thus, security sciences, in their character, are an interdisciplinary field that encompasses various disciplines such as political science, sociology, law, psychology, military sciences, etc. This multidisciplinary approach can pose a challenge in terms of integrating different theoretical frameworks, research methods and data analysis. That is why it is essential for researchers to be familiar with different disciplines and able to integrate their approaches into research.

However, the above methodological problems are just some of the challenges that can be faced in designing scientific research in the sciences of safety. It is important to approach research with careful planning, the use of appropriate methods and continuous critical thinking to overcome these problems and provide valid and relevant research knowledge.

## **5. CONCLUSION**

The methodology of scientific research is the basis for the successful conduct of scientific research. It provides the structure and guidance that researchers use to achieve research objectives in a systematic way. The subject and object of research methodology of security science refers to the study and understanding of the approaches, techniques, procedures and methods used in the analysis and research of the security field.

Designing research in the sciences of safety is a complex procedure that creates the necessary conditions for conducting research and obtaining relevant scientific knowledge and solving a specific scientific problem. The paper found that the sciences of security are interdisciplinary and that there is a direct link with military and political sciences. The methodology of security science is based on a multidisciplinary approach, combining elements from different

disciplines such as political science, sociology, psychology, law, informatics, statistics and other relevant fields.

It has been established that the research project, especially the part related to the scientific idea, is a key element for providing answers to questions concerning obtaining relevant scientific results and the preparation of doctoral dissertations. It can be noted that the research project essentially provides application to the scientific method and data analysis in order to gain a deeper insight into the nature of security and provide guidance for making relevant decisions in the field of security.

It was noted that in the sphere of designing research in the sciences of security there are certain methodological problems that are manifested most often in the form of: vague or avoidance of defining problem of research, problems of choice and selection of samples, validity and reliability and sample, omission or formal statement of verification of hypotheses, problems Ethical issues of data collection and interdisciplinarity and research.

## **REFERENCES**

„Official Gazette of RS”, 114/2017 and 24/2020.

Besic, M. (2019). Methodology of social sciences. Novi Sad, ISBN 978-86-6263-280-7, Academic book.

Markovic, M. (1994). Philosophical foundations of science. Belgrade: BIGZ.

Mihailovic, D. (1999). Methodology of scientific research. Belgrade: Faculty of Organizational Sciences.

Milosavljevic, S. (1980). Research on political phenomena. Belgrade: Institute for Political Studies.

Milosevic, N. (1989). Designing Research in the Art of War. Belgrade: VINC.

Vujevic, M. (1983). Introduction to scientific work in the field of social science. Zagreb: Informator.

CIP - Каталогизација у публикацији  
Народна библиотека Србије, Београд

005.334(082)

351.78(082)

351.861(082)

**INTERNATIONAL Scientific-Professional Conference - Security and Crisis Management - Theory and Practice SeCMan - International Forum "Safety for the Future" 2023 (9; 2023 ; Belgrade)**

Proceedings / 9th International Scientific-Professional Conference - Security and Crisis Management - Theory and Practice SeCMan - 9th International Forum "Safety for the Future" 2023, September 29 and 30 Belgrade 2023 ; [editorial Nenad Komazec, Branko Babic]. - Belgrade : Regional Association for Security and Crisis Management: S4 GLOSEC Global security, 2023 (Beograd : Donat graf). - 376 str. : graf. prikazi ; 24 cm

Tiraž 75. - Bibliografija uz svaki rad.

ISBN 978-86-80692-10-4 (RASCМ)

а) Кризни менаџмент -- Зборници б) Ванредне ситуације -- Управљање -- Зборници  
в) Безбедносни сектор -- Зборници

COBISS.SR-ID 125304073