

інформації, що надає АДІС особливого значення для ефективнішої боротьби зі злочинністю.

Ще недавно цей напрям був новим для дактилоскопії. Однак, зараз АДІС активно використовують криміналісти майже всіх країн (зокрема, України), а потужні АДІС охоплюють великі країни, організації та союзи країн. Саме тому дактилоскопічний облік сьогодні вважають одним із найефективніших поміж інших криміналістичних обліків.

У деяких випадках призначення дактилоскопічної експертизи починають з використання дактилоскопічного обліку для вибору дактилоскопічної карти як матеріалу для порівняння (також під час порівняльного дослідження) шляхом використання АДІС як допоміжного інструментального методу порівняння, що значно спрощує роботу судового експерта та зменшує терміни виконання експертизи [3, с. 37].

Основні компоненти функціонування дактилоскопічного обліку:

- автоматизована дактилоскопічна ідентифікаційна система;
- масиви матеріальної та нематеріальної інформації (оригінали й електронні копії дактилоскопічних карт та електронних зображень слідів папілярних узорів рук).

Застосування та функціонування АДІС для ведення дактилоскопічного обліку (як і всієї системи криміналістичних обліків) сприяє більш ефективному використанню маркерів ідентифікації людини для вирішення таких завдань:

- оперативно й ефективно встановлювати злочинців та інших осіб, які залишили свої сліди на місці події;

- встановлювати факти залишення однією особою слідів рук під час вчинення різних злочинів;
- розшукувати осіб, зниклих безвісти, та встановлювати осіб невідомих трупів;
- здійснювати підтвердження особи людини, яка була раніше піддана дактилоскопіюванню, а також встановлювати особу людини, яка через стан здоров'я чи вік не може нічого про себе повідомити [4].

Останніми десятиліттями широке використання математичних методів, комп'ютеризація досліджень і розвиток інформаційних підходів дали змогу накопичити певний методологічний досвід, який допомагає більш ефективно і швидко вирішувати багато проблем дактилоскопії (зокрема, використання кількісних підходів за умови автоматизації дактилоскопічного обліку й експертизи). Тому нині актуальною є проблема вдосконалення та розширення периферії АДІС не лише в підрозділах Експертної служби, а й в інших відомствах (Національна поліція та Служба безпеки України), що в результаті могло б додати їм оперативності й ефективності у розкритті та розслідуванні злочинів, а також у боротьбі з тероризмом.

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DIRECTION OF DEVELOPMENT OF FORENSIC SCIENCES

Abstract. This article will present the implementation of forensic analyzes, examinations and expertise in a way that excludes the human factor from them. This is explained in the way of introducing accreditation and standardization in the forensic procedure. The way of removing the error in handling forensic traces from the scene was also presented.

Keywords: accreditation, ISO 17025 standard, forensic sciences, chain of evidence.

Анотація. Викладено спосіб здійснення судово-медичних аналізів, судових досліджень і експертиз з метою виключити з них людський фактор. Це можливо завдяки запровадженню акредитації та стандартизації в криміналістичну процедуру. Також представлено спосіб запобігання помилкам під час оброблення криміналістичних слідів з місця події, для чого наведено низку доказів.

Ключові слова: акредитація, стандарт ISO 17025, криміналістичні науки, ланцюг доказів.

Аннотация. Изложен способ осуществления судебно-медицинских анализов, судебных исследований и экспертиз с целью исключить из них человеческий фактор.

Это возможно благодаря внедрению аккредитации и стандартизации в криминалистическую процедуру. Также представлен способ избегания ошибок при обработке криминалистических следов с места происшествия, для чего приведена цепочка доказательств.

Ключевые слова: аккредитация, стандарт ISO 17025, криминалистические науки, цепочка доказательств.

Forensic sciences are the application of a large number of sciences in the judiciary, ie in criminal and civil disputes. That is, forensic sciences find appropriate methods, most often basic sciences (biology, chemistry, physics, mathematics and other sciences), modify them, adapt and apply everything with the aim of finding, analyzing, examining and expertise of material traces from various criminal and litigation sites. works. Modern forensic sciences rely on the theory of Edmond Locar, which in abbreviated form reads: «every contact leaves a trace», that is, every contact between man and man, man and object and object and object, leaves a mark on each other! The mentioned theory, which was set up by Edmond Locar in the 1920s, was only a theory for a long time. Namely, as the

contact theory is mostly about (micro) traces, techniques and technologies for their detection have not been available for many years. With the development of science, technique and technology, by finding primarily a method for DNA analysis, which possesses the possibility practical identification from only a few cells of the organism, then the development of scanning electron microscopy, which can magnify the latent trace up to (fantastic) 300,000 times (!), and especially the development of information technology suitable for efficient and effective verification of material traces from the spot through forensic Database. However, with the expansion of modern, sophisticated scientific methods and their application in forensic sciences, there is an (un) justified doubt: can the superiority of a forensic expert in relation to other members of the judicial system (judges, prosecutors, lawyers) who do not have knowledge and experience specific forensic areas, lead to abuse? The mentioned misuse of expert knowledge, which is possessed by a very small number of experts, may be in the form of intentional or unintentional error, during the presentation of findings and opinions of forensics before judicial authorities, on the basis of which the court will finally report. According to the authors of this paper, the goal of the development of forensic sciences in the future, among other things, should move in the direction: how to eliminate the human factor in making a forensic finding?

The human factor in making forensic findings

The importance of forensic evidence in the judiciary is so great that since the mid-1990s, no litigation, criminal or litigation can be resolved without the help of forensic evidence. Without forensic evidence, the process of reconstruction of a criminal offense cannot be performed, nor can the truth be established as to how that offense occurred. This means that the forensic scientist has this power, which in his novel HJ: Wells «Time Machine», he described as the power of man to return to the past! So, by determining how some (criminal) event happened in the past, the forensic expert is able to (conditionally speaking) turn back time. But how and in what way? If the court accepts the finding and opinion of the forensic experts regarding an act, officially that event did not happen the way it actually did! No, that event happened in the way presented by the forensic expert in the courtroom at the main trial, and the court accepted that finding and opinion. What if the forensic scientist made a mistake, intentionally or unintentionally? Who will determine that and how, if it is known that judges, prosecutors and lawyers do not possess sophisticated knowledge from biology, chemistry, physics and other legal sciences.

The future of forensic science, in my humble opinion, must be based on the complete exclusion of the human factor, when presenting forensic results. In such responsible cases, such as the establishment of judicial facts by forensic evidence, it should not be possible for the finding to depend solely and exclusively on forensics. In addition to being biased (for a variety of reasons) by a forensic scientist, it can happen that a forensic scientist makes an unintentional mistake. The opinion of the authors of this paper is that in the future, forensic analyzes, examinations and expertise will rely exclusively on verifiable and repeatable tests in which they

will depend as little as possible on the human factor. Why? I start from myself, I have been a forensic forensic expert for thirty years. For many years, I worked as an expert witness, the so-called «paraffin gloves», on the basis of which evidence was presented in the judiciary in the direction of who fired from a firearm, during the commission of the most serious crimes of murder and grievous bodily harm. The forensic-chemical test «paraffin glove» is a destructive method, it is performed using aggressive chemicals and the evidence itself (possible gunpowder particles) is destroyed during the analysis. This means that the crucial evidence established by this test can only be seen by the forensic scientist who performed the test, and the basis for that will be the findings and opinion, which determines whether the court, due to the presence of gunpowder particles, will determine that the suspect really fired from firearms or due to the absence of gunpowder particles on the sample («paraffin glove»), the court will determine that the convict did not shoot on a critical occasion! Now, if there are objections from the parties to the proceedings (prosecutor, defense attorney) and there is an opportunity for re-examination and / or subsequent expertise of the «paraffin gloves» in question, it is impossible to carry out that evidentiary action for the mentioned reasons. Well, in the case of this and similar types of expertise, only the testimony of the forensic expert who performed it subject examination, valid and credible. So, the evidence obtained in this way depends only and exclusively on the opinion of forensics, so the (un) justified question arises - can there be an error in this and such expertise?

The proposal for overcoming the mentioned issue is the introduction of the accreditation process in forensic analyzes, examinations and expertise. Accreditation (in general, including forensics) is a procedure by which the competent body (national accreditation institution) evaluates a certain forensic laboratory and formally recognizes that the forensic laboratory is professionally and technically qualified to perform certain tasks in accordance with all internationally accepted rules from areas of forensics. After successfully completing the accreditation procedure and obtaining an accreditation certificate, the evaluated forensic laboratory received official recognition that it is competent to perform forensic analyzes, examinations and expertise in accordance with all the requirements of a certain standard. In the case of forensic analysis, testing and expertise, the standard to be met by forensic laboratories is the international standard ISO / IEC 17025. Obtaining a certificate of accreditation implies that an accredited forensic laboratory has a high level of organizational and technical skills. The accreditation certificate guarantees confidence in the safety and quality of forensic analyzes, examinations and expertise performed in an accredited forensic laboratory. The accreditation certificate does not guarantee that in an accredited forensic laboratory, the possibility of error is excluded, but the accreditation guarantees that the possibility of error in forensic analysis, testing and expertise will be reduced to a minimum. Also, the part of accreditation that deals with corrective, and especially preventive measures, can reveal the possibility of an error in work, which gives the possibility to predict the error and to act preventively in order to eliminate it.

Another important segment of accreditation in performing forensic analysis, examination and expertise is the establishment of the evidence chain, ie the chain of possession of evidence. In English-speaking countries, the common term for this way of preserving the integrity of material evidence is «Chain of Custody». The chain of evidence or the chain of possession is the monitoring of the sequence of handling of some evidence, from which it is evident who collected some evidence, who had it in their possession (kept it for themselves), packed, transported, analyzed and deposited. In this way, the possibility of error in the handling of evidence from the scene of the crime is completely avoided. An error can occur in the form of loss of all or part of the material evidence, its contamination and / or compromise, but with the help of the chain of evidence the error will be detected in time and it will be precisely determined who is responsible for the error in question. . Again, I state my practice related to the issue of handling evidence. Recently, I received a letter from the competent court in Montenegro to state the circumstances - can I remember any evidence in the case that I examined in 1997 ?! In response to the court's request, I was guided only by official written documents stating that the subject of the expertise would be submitted with the attachment of a biological expertise (the subject of my expertise was forensic-chemical). I did not even try to answer with the help of memories or the like, only and exclusively with written documents, which represent a unique chain of evidence.

Forensic sciences, as de facto sciences, strive to explore the truth, while the judiciary strives to establish justice. On that path from truth to justice, forensic science is required that the analyzes, research and expertise it performs must not be subject to error. Forensic sciences are based on highly sophisticated technical devices and on the opinion of forensic scientists who operate these devices. It is of great importance that the forensic process is organized in such a way that the human factor is reduced to a minimum or that, if possible, the human factor is completely omitted from the process of forensic examination results. In that way, the possibility of an error in the presentation of forensic evidence is excluded, on which the court decision in judicial cases depends to the greatest extent. The author

of this paper sees the solution to the mentioned problems in the accreditation and standardization of the complete forensic procedure, from finding a material trace on the spot to presenting the findings and opinion of the forensic expert before the court. In the future, all forensic laboratories and their employees will have to be accredited according to a binding international standard, and forensic analyzes, examinations and expertise will be performed using prescribed and approved procedures. It is generally known that accreditation is a process, ie existing and approved procedures, according to which forensic experts act in their work, over time undergo changes in order to work more effectively and efficiently. This process of constant improvement of procedures in forensic procedures will be more and more difficult over time by reducing errors in work and at one point and their complete elimination!

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О ПОДГОТОВКЕ СУДЕБНО-ЭКСПЕРТНЫХ КАДРОВ В РЕСПУБЛИКЕ МОЛДОВА

Аннотация. Изучены основные подходы к профессиональной подготовке судебно-экспертных кадров в разных государствах, приведены сведения об этапах

становления судебного эксперта. Представлены предложения по внедрению системного интегрированного обучения судебных экспертов.