

# **SUMMARY**

## **Concept and nature of dactyloscopy**

The aim of the thesis is to provide a comprehensive view on the issue of dactyloscopy. Especially, to introduce readers about dactyloscopy and institutes related to this method. The thesis is systematically divided into several chapters. The thesis is complemented by visual and textual appendices for the better and easier understanding of the various institutes.

The introduction contains basic information about dactyloscopy and the outline of what the thesis will contain.

Chapter One deals with the subject, concept and importance of the dactyloscopy.

Chapter Two is divided into two parts. The first subchapter concerns the historical development of forensic dactyloscopy in the world. First of all, there are described the beginnings of knowledge of fingerprints and then personalities and their influence on the development of the dactyloscopy. As an example of these significant personalities, William James Herschel, Henry Faulds or Juan Vucetich can be cited. The second subchapter is focused on the development of the dactyloscopy in the territory of the Czech countries. In particular, the place is given for Jan Evangelista Purkyně well known as a pioneer in the area of papillary ridges. Because it was him who as the first described and classified the papillary ridges.

Chapter Three is divided into two sections. The first section covers the basics of the dactyloscopy from the biological point of view, concretely the construction of the skin and its functions, which creates the papillary ridges. The second section discusses the three physiological rules. Namely, it is the rule on individuality of patterns of the papillary ridges, the rule on the relative constancy of patterns of the papillary ridges and the rule on irremovability of patterns of the papillary ridges.

The fourth and fifth chapter deal with the issue of dactyloscopic traces. The fourth chapter specifically addresses questions of their formation, classification, occurrence, usability and stability. The fifth one, the most comprehensive chapter in the thesis, is divided into four parts, which are further subdivided. The first and second part deal with finding, visibility and safeguarding of visible and latent dactyloscopic traces. The third part also applies to the visibility and safeguarding of the dactyloscopic traces but on the skin of corpses. The last part of the fifth

chapter discusses the progressive approach, which aims to achieve the most effective result of the process of dactyloscopy.

Chapter Six describes the core of the process of the dactyloscopy. Firstly, the process on living human and subsequently, on corpses.

The seventh chapter deals with dactyloscopic identification. Also this chapter is divided into subchapters. The first subchapter is dedicated to the description of the basic principles and methods of dactyloscopic identification process. The second one deals with automatization process, scanning and computer processing of fingerprints and final evaluation. The third subchapter focuses on the fingerprint registration systems in the Czech Republic and in the world.

The eighth and simultaneously the final chapter contains basic information about the Czech legislation related to the dactyloscopy, especially this chapter focuses on the provisions of the Charter of Fundamental Rights and Freedoms, Act No. 141/1961 Coll., the Code of Criminal Procedure and the Act No. 273/2008 Coll., on Police.

In conclusion, the whole thesis is briefly summarized and outlined a possible future of fingerprint data. However, the future of this method will be still very long according to the practices and many opinions.

**Key words:**

dactyloscopy

papillary ridges

fingerprints