

**György Fialka:**

**The notion, origin, present and future of the security of financial institutions.**

**Conditions and potentials of a paradigm shift**

**(Summary)**

My doctoral degree dissertation analyses physical and electric systems and their evolution, relevant tasks of human security, the practices and processes of financial operations and their intertwining roles.

I have adjusted my research methods to the advancement of methods for prevention, introduction, application, intervention and reaction, with respect to the correlation between theoretical issues and feasibility in practice.

I regard as novel scientific results the following:

1. Mission-oriented criteria of selecting biometric identification devices optimally applicable in financial institutions
2. Among the currently available infrared cameras, none is suitable to detect dynamic body temperature change in real circumstances (i.e. a person wearing garment).
3. Fog cannons are applicable as active intervention tools in financial institutions.

This degree dissertation is made to be used in education as it is concerned with the historical overview of the evolution of financial institutions, their international outlook, the feasibility of scientific results, as well as all the analyses and conclusions drawn. It also expands the scope of knowledge of professionals working in the practical security industry.

I have emphasized the importance of the use of instruments in creating the security of circumstances and conditions in financial institutions. Based on the statements I have made, fog cannons prove highly effective intervention devices. The mission-oriented criteria I have elaborated, together with the application of biometric data may restructure the methods of personal identification in the financial sector. Vein-based recognition will be more prevailing through instrumental innovation not exclusively in the field of finances but in case of several Internet-based services as well.

Infrared camera inspections must continue in the future in financial institutions and it is necessary to examine the system of instrument-specific criteria.