

CONTENT

Summary	6
1. Theoretical Basis of the Security Related with Terrorism.....	7
1.1. Introduction	7
1.2. The Historical Overview of Terrorism	7
1.2.1. The History of Terrorism before the End of the World War II	8
1.2.2. The History of Terrorism during the Cold War	9
1.2.3. The History of Terrorism after the Cold War	11
1.3. Theoretical Basis of Fight against Terrorism in the International Enviroment	13
1.3.1. The International Organizations and Their Influence on Security	15
1.3.2. The Global Security	15
1.3.3. The European Security	16
1.4. Security of the Czech Republic and its Inclusion in the Current International Security Structures (the External Security of the Czech Republic).....	16
1.4.1. The United Nations Organization (UNO)	17
1.4.2. The UN Security Council	17
1.4.3. North Atlantic Treaty Organization (NATO).....	18
1.4.4. The European Union (EU)	19
1.4.5. Counterterrorism and the IT Security in the EU	19
1.4.6. Organization for Security and Co-Operation in Europe (OSCE).....	20
1.4.7. Organisation for Economic Co-operation and Development (OECD)	21
1.5. The Situation of Cyber Crime and Cyber-Terrorism in the Czech Republic	22
1.5.1. Police in the Czech Republic	22
1.5.2. The Ministry of Interior in the Czech Republic (The Home Office)	22
1.5.3. Cyber Criminality, Society and Justice in the Czech Republic	23
1.6. Epilogue.....	24
1.7. References	24
2. Economy of Civil Security	27
2.1. Basic Concepts	27
2.1.1. Security as Commodity	27
2.1.2. Civil Security.....	29
2.2. Description of Objects and Phenomena.....	30
2.2.1. Description	30
2.2.2. Subjectivity of Risk.....	34
2.2.3. Interaction Threats.....	36
2.2.4. Information and Rare Scales	42
2.2.5. Risk Analysis.....	45

2.3.	Economy of Prevention on General and Business Economy	47
2.3.1.	Static Evaluation of Economy of Prevention	47
2.3.2.	Evaluation of Economy of Prevention in Time Period	47
2.3.3.	Quality of Prevention	50
2.3.4.	Relativity of the Economy of Risks	50
2.4.	References	51
3.	Security Related to Sustainable Development.....	52
3.1.	Security and the Environment	52
3.2.	Tools Used in the Field of Environmental Security	54
3.3.	Selected Tools and Methods for Detection, Classification and Evaluation of Information	56
3.4.	Basic Criteria for Information Assessment and its Value	57
3.5.	Information for Managerial Decisions	61
3.6.	Determination of the Information Value.....	63
3.7.	Value of Information in the Application of Utility Theory.....	64
3.8.	Security Management.....	65
3.8.1.	Managerial Approaches in Relation to Security Support.....	65
3.8.2.	Systemic Approach.....	66
3.8.3.	Mathematical Approach	67
3.8.4.	The System, Model and Modelling from the Managerial Aspect	67
3.8.5.	The Model of Force Field Analysis.....	68
3.8.6.	Indicators in the Area of the Environmental Security	69
3.8.7.	Use of Fuzzy Logic in Developing Indicators	72
3.9.	References	73
4.	Security Problems Modelling	75
4.1.	A Petri Net Modelling.....	76
4.2.	A Component Based Modelling	78
4.3.	References	80
4.4.	Case Studies.....	81
4.5.	Case Study 1: Petri Nets-Based Models For Basic Authentication Process.....	82
4.5.1.	Introduction	82
4.5.2.	Related Work.....	84
4.5.3.	Kerberos Message Exchange	84
4.5.4.	Modeling by Petri Nets	85
4.5.5.	Results	88
4.5.6.	Conclusion.....	89
4.5.7.	References	89
4.6.	Case Study 2: A Critical Infrastructure Protection Modeling.....	92

4.6.1.	Model of Critical Infrastructures.....	93
4.6.2.	Telecommunications Model: Example Vensim Model of Aggregate Wire Line + Wireless Network.....	94
4.6.3.	Power Blackout Model.....	96
4.6.4.	References	98
4.7.	Case Study 3: Landscape Risk Management an Entropy Example.....	100
4.7.1.	Introduction	100
4.7.2.	Flood Risk Management	100
4.7.3.	Assessment of risks by means of entropy	102
4.7.4.	Results	103
4.7.5.	Conclusion.....	105
4.7.6.	References	106
5.	Security of Authentication	108
5.1.	Security of Passwords Authentication	108
5.2.	Method of Security Evaluation of Passwords.....	109
5.2.1.	General Principle.....	109
5.2.2.	Attack Simulation Model	110
5.2.3.	Password Security Evaluation.....	112
5.2.4.	Method of Security3 Evaluation of Passwords Criticism	112
5.3.	Passwords Surveys	113
5.3.1.	Passwords Security Survey	113
5.3.2.	Passwords Usability Survey	117
5.4.	Keystroke Dynamics.....	120
5.4.1.	Related Works	120
5.4.2.	Fuzzy Model of Keystroke Dynamics Authentication	122
5.5.	Referenes	131
Tables List		134
Figures List		135
Index		138