

TABLE OF CONTENTS

The message of the Presidential Adviser Ion Opreșor, Head of the National Security Department of the Romanian Presidential Administration – addressed to the participants in the 3rd edition of the International Scientific Conference “Emerging and Disruptive Technologies’ Impact on Global Security”

THE IMPACT OF EMERGING AND DISRUPTIVE TECHNOLOGIES ON SOCIETY

1. HUMANITY AT THE CROSSROADS. TO “UNINSTALL” ARTIFICIAL INTELLIGENCE OR TO INVEST MORE IN ARTIFICIAL INTELLIGENCE <i>Anca DINICU</i> <i>Dumitru IANCU</i>	119
2. NOVEL MATERIALS AND ADDITIVE MANUFACTURING IN RELATION TO GLOBAL SECURITY <i>Adrian DUMITRACHE</i>	128
3. ENHANCING FINANCIAL SECURITY IN THE DIGITAL AGE: MITIGATING RISKS OF VIRTUAL CURRENCIES THROUGH REGULATION AND INSTITUTIONAL MECHANISMS <i>Teodor FRUNZETI</i> <i>Alexandru-Cosmin DUMITRU</i>	133
4. HARMONIZING VIRTUAL CURRENCY USE IN THE EU: THE EVOLUTION AND IMPACT OF MiCA REGULATION <i>Teodor FRUNZETI</i> <i>Alexandru-Cosmin DUMITRU</i>	141
5. EMERGING AND DISRUPTIVE TECHNOLOGIES – A BIBLIOMETRIC ANALYSIS <i>Gabriel MĂNESCU</i> <i>Ioan-Tiberiu GIURGIU</i>	149
6. SECURITY ONTOLOGY IN A VIRTUAL UNIVERSITY <i>Loredana MOCEAN</i> <i>Miranda-Petronella VLAD</i>	161
7. SOCIO-ETHICAL AND BEHAVIOURAL ASPECTS OF EXOSKELETON IMPLEMENTATION IN SPECIFIC MILITARY MISSIONS <i>Maria-Lucia TALMAȚCHI</i> <i>Ioan VIRCA</i> <i>Ioan-Tiberiu GIURGIU</i> <i>Ioan-Dan POPA</i>	171

THE ROLE OF EMERGING AND DISRUPTIVE TECHNOLOGIES ON MILITARY AFFAIRS

1. VIRTUAL REALITY (VR), AUGMENTED REALITY (AR) AND MIXED REALITY (MR), A NECESSITY OF THE MODERN DIVING TECHNOLOGY <i>Adriana-Georgiana AGAPE</i> <i>Daniel STOENCIU</i> <i>Cosmin-Constantin CHIRCU</i>	179
2. EMERGING TECHNOLOGIES IN CONFLICT: THE IMPACT OF STARLINK IN THE RUSSIA – UKRAINE WAR <i>Lavinia BOJOR</i> <i>Tudorică PETRACHE</i> <i>Cristian CRISTESCU</i>	185
3. OVERVIEW ON SEA DRONES EVOLUTION AND THEIR USE IN MODERN WARFARE <i>Andrei BURSUC</i> <i>Cristian MUNTEANU</i> <i>Simona RUS</i>	195

4. THE EVOLUTION OF WARFARE – BIOTECHNOLOGICAL ADVANCEMENTS IN MILITARY OPERATIONS <i>Sandra-Maria CEPIȘCA</i> <i>Alin-Ionuț CÎRDEI</i>	210
5. THE ROLE OF EXPLOSIVE ORDNANCE DISPOSAL DIVERS IN ELIMINATING THE DANGER GENERATED BY NAVAL MINES <i>Adrian ONȚICĂ</i> <i>Alexandra GORDEȘ</i>	219
6. THE FUTURE OF WARFARE IN THE VOLATILITY, UNCERTAINTY, COMPLEXITY AND AMBIGUITY CONTEXT <i>Sorin TOPOR</i>	227

ARTIFICIAL INTELLIGENCE IN ACHIEVING TECHNOLOGICAL EDGE

1. THE EMERGING AND DISRUPTIVE TECHNOLOGIES – A RISK-BASED APPROACH <i>Marin-Marian COMAN</i> <i>Claudiu-Vasile KIFOR</i>	237
2. ARTIFICIAL INTELLIGENCE – EVOLUTION, CHALLENGE OR THREAT <i>Constantin MINCU</i> <i>Dorin ALEXANDRESCU</i>	247

EMERGING AND DISRUPTIVE TECHNOLOGIES AND TECHNOLOGICAL SUPERIORITY

1. THE INTEGRAL ROLE OF RESEARCH AND DEVELOPMENT IN NAVAL FORCES AMIDST EMERGING AND DISRUPTIVE MILITARY TECHNOLOGIES <i>Octavian-Gabriel CHIRIAC</i> <i>Andreea ROSTOGOL</i> <i>Adriana-Georgiana AGAPE</i> <i>Fănel RĂDULESCU</i>	253
2. METHODS REGARDING THE EMERGING TECHNOLOGICAL PHENOMENA OF MODERN SECURITY IN NONLINEAR DYNAMIC SYSTEMS. APPLICATION STUDIES AND IDENTIFICATIONS METHODS <i>Ștefan-Gabriel GEORGESCU</i>	260
3. THE USE OF DRONES IN TACTICAL MILITARY OPERATIONS IN THE INTEGRATED AND CYBERNETIC BATTLEFIELD <i>Laurențiu GRIGORE</i> <i>Cristian CRISTESCU</i>	269
4. CHARACTERISTIC ELEMENTS OF COMBAT DRONES IN MILITARY ACTIONS. UNMANNED AERIAL VEHICLES PROCURED BY ROMANIAN ARMED FORCES <i>Gheorghe MINCULETE</i> <i>Veronica PĂSTAE</i>	274
5. ESSENTIAL APPROACHES TO THE FUTURE SOLDIER’S NECESSITY TO USE THE PASSIVE EXOSKELETON <i>Gheorghe MINCULETE</i> <i>Ioan VIRCA</i>	290
6. FLEXIBLE CARTRIDGE SORTING LINE USING PARALLEL ROBOT “ <i>BulletSort TOPCODPET</i> ” <i>Ionuț-Cristian ȚOPA</i> <i>Tudor-Cătălin CODREANU</i> <i>Silviu-Mihai PETRIȘOR</i>	298