

## Contents

František Adamčík, Peter Krajňák <b>THE DYNAMIC ERROR OF THERMOCOUPLES</b> .....	5
Štefan Berežný <b>DISCRETE MODELS OF OPTIMIZATION AND AFENESS IN TRANSPORT AND TRANSFER</b> .....	11
Štefan Čorňák <b>SELECTED ASPECTS OF DRIVERS MICROCLIMATE EVALUATION</b> .....	15
Jelena Djokic, Hartmut Fricke, Michael Schultz, Christoph Thiel <b>AIR TRAFFIC COMPLEXITY AS A SAFETY PERFORMANCE INDICATOR</b> .....	20
Péter Gáspár, Zoltán Fazekas, Alexandros Soumelidis <b>NOTES ON VEHICLE-BASED VISUAL TRAFFIC SURVEILLANCE FOR CRASH-PREDICTION</b> .....	26
Eva Gelnarová, Petr Krupanský, Jiří Svoboda, Petr Mejzlík, Tomáš Neužil <b>HISTORICAL DATA BASED WIND SEGMENTATION</b> .....	32
Rudolf Jalovecký, Přemysl Janů <b>ANALYSIS OF THE CHARACTERISTICS OF A PILOT IN THE AIRCRAFT FLIGHT</b> .....	38
Ondřej Kotaba <b>OBSTACLE DETECTION SYSTEMS USING EO CAMERAS</b> .....	43
Mariana Kuffová, Václav Králík <b>UTILIZATION OF SIMULATION AT THE EVALUATION OF FATIGUE PROPERTIES OF MATERIALS</b> .....	50
Ján Labun, Pavol Kurdel, Pavol Lipovský <b>COMMUNICATION ANTENNA EMITTING IN TRANSVERSE VERTICAL PLANE OF AIRCRAFT</b> .....	55
Zdeněk Matoušek, Pavel Bučka <b>DETECTION AREA ANALYSIS IN THE ELINT SYSTEM</b> .....	60
Jana Modrovičová, Ladislav Madarász, Ján Kabát <b>MPM 20 MAGNETIC AURA RESEARCH AND ITS UTILIZATION FOR MPM 20 SITUATIONAL CONTROL</b> .....	65
Martin Ernesto Orejas, Luboš Váci, Milan Sopata <b>MULTIPLE SENSOR INTEGRATION FOR AUTONOMOUS VEHICLE NAVIGATION</b> .....	71
Jan Pokorný, Michal Šelmát <b>PASSIVE SAFETY OF CAR FLEET IN THE CZECH REPUBLIC</b> .....	79
Ondřej Polák, Vít Janoš, Karel Baudyš <b>EVALUATION OF A NEW TIMETABLE CONCEPT ON THE TRACK PRAHA-KLADNO USING A SIMULATION TOOL</b> .....	83
Vladimír Sedlák, Miloš Ječný, Marián Mesároš, Miroslav Kelemen, Pavel Nečas <b>TEST ANALYSES OF DAM DEFORMATIONS FOR SECURITY OF PEOPLE AND ENVIRONMENTAL PROTECTION</b> .....	88

Peter Spilý, Pavel Nečas <b>ALLIANCE'S STRATEGIC CONCEPT</b> .....	95
Michal Turčaník <b>TRAFFIC LIGHTS CONTROL USING RECURRENT NEURAL NETWORKS</b> .....	101
Jiří Vašek, Pavel Kolčárek, Petr Krupanský, Christopher Misiak <b>AIRBORNE SIDE AND AUTOMATED EN-ROUTE CONFLICT DETECTION AND RESOLUTION</b> .....	106
Jaroslav Zajiček, Jiří Havlíček, Pavel Fuchs, Radovan Soušek, Miroslav Kelemen, Lucia Kováčová <b>APPRAISAL OF CRITICAL TRANSPORTATION INFRASTRUCTURE – RISKS AND SAFETY</b> .....	112