

CONTENTS

AEROSPACE SYSTEMS FOR MONITORING AND CONTROL

1. <i>Volodymyr Kharchenko, Wang Bo, Andrii Grekhov, Marina Kovalenko</i> Investigation of ADS-B messages traffic via satellite communication channel.....	7
2. <i>Volodymyr Kharchenko, Wang Bo, Andrii Grekhov, Petro Stahovsky</i> Computer modeling of radio frequency satellite transponder for transmission of ADS-B messages satellite communication channel	14
3. <i>Valter Melkumyan, Ivan Ostroumov, Tetiana Maliutenko</i> Problem formalization of polyergatic transport technological systems design	21
4. <i>Svetlana Pavlova, Alina Zadorozhnia</i> Analysis of free route airspace and performance based navigation implementation in the European air navigation system	28
5. <i>Andriy Gusynin, Helen Tachinina</i> Algorithm of guaranteed-and-adaptive control of aerostatic vehicle under undetermined external turbulences.....	36
6. <i>Nikolay Bogunenko Yulia Radchenko</i> Algorithm of guaranteed-and-adaptive control of aerostatic vehicle under undetermined external turbulences.....	45
7. <i>Olena Kozhokhina, Victor Gribov, Sergiy Rudas</i> Structural reliability of air traffic controllers	50
8. <i>Vasylii Kondratyuk, Alesei Zhelanov, Igor Ditskiy, Eugene Bessonov</i> Modified algorithm of smoothing/filtering the differential GNSS observations in the kinematic positioning mode	56
9. <i>Nikolay Bogunenko, Yulia Semydka</i> Implementation of the green flight into airspace of Ukraine.....	65
10. <i>Vitaliy Lazorenko, Dmitrii Dolhov</i> Implementation of plate line system in Ukraine.....	71

MODERN AVIATION AND SPACE TECHNOLOGY

11. <i>Volodymyr Kharchenko, Vitaliy Larin, Iana Savitskaya</i> The accuracy measurement of hardware tools metrological characteristics for spectral fractions signal identification	76
12. <i>Petro Pavlenko, Sergey Tolbatov</i> Competence assessment method of the expert group	82
13. <i>Igor Prokopenko, Igor Martynchuk</i> Optimization of smoothing parameter by kernel estimation of probability density distribution.....	87
14. <i>Sergiy Ishchenko</i> Aircraft take-off mass estimation in aviation incident investigation process.....	92
15. <i>Andrey Dovgal</i> Development of the thermal barrier coating for heat affected components of aircraft ground support equipment	100
16. <i>Yuriy Puchkov, Nikolay Molodtsov, Alexander Rugain, Dmitriy Popov</i> Problems of continued airworthiness the aircraft fleet of Ukraine.....	105
17. <i>Anatolii Pogrebniak, Mikhail Regulskii, Elena Yurchenko, Aleksandr Tugarinov</i> Calculation method of aerotechnics products fatigue strength subject to cyclic loading.....	111

AIRPORTS AND THEIR INFRASTRUCTURE

18. <i>Dmitry Prusov</i> The system of risk assessment criteria and consequences prediction of urban areas transformation.....	116
---	-----

INFORMATION TECHNOLOGY

19. *Philip Prystavka, Eugen Nichikov*
Video stabilization informational technology for unmanned aerial vehicle..... 121
20. *Maryna Mukhina*
Comparison of error metrics in matching algorithms of images by surf detector 128
21. *Mykola Volokha, Larisa Boldyrieva*
Simulation technology of sugar beet 133

ENVIRONMENT PROTECTION

22. *Tamara Dudar, Margaryta Buhera, Georgii Lysychenko, Amy Englebrecht*
Uranium deposits database for the purpose of nuclear forensics in Ukraine..... 140
23. *Valeriia Kovach, Georgii Lysychenko*
Experience of rehabilitation of former uranium productions and its importance for Ukraine 146
24. *Kateryna Synylo, Kateryna Kazhan*
Monitoring of air pollution produced by aircraft in the vicinity of airport..... 153

CHEMMOTOLOGY AND CHEMICAL TECHNOLOGY

25. *Zoriana Gnativ, Irena Nykulyshyn, Taras Voronchak, Anna Rypka*
Regularities of cooligomerization of C9 fraction and heavy pyrolysis tar monomers 162

INDEX OF THE ARTICLES, PUBLISHED IN 2014 170

INSTRUCTIONS FOR AUTHORS..... 174