Направление (код, название):
10.06.01 Информационная безопасность

Образовательная программа (код, название):
Методы и системы защиты информации

Уровень обучения:
Аспирантура

1. Направления НИР:
   - Космическое электронное приборостроение,
   - Анализ безопасности и защита программного кода,
   - Информационная безопасность компьютерных сетей,
   - Математические методы в криптографии и теории кодирования.

2.Ключевые достижения:

2.1 Основные реализованные проекты (гранты, договоры, внедрения и др.):

Разработка и изготовление устройств и сложно-функциональных блоков маршрутизации передачи данных (руководитель - Ханов В.Х., доцент), исполнитель – Лепешкина Е.С., аспирант кафедры БИТ.

Исследование криптографических систем космических аппаратов на устойчивость к аппаратным сбоям ионизирующего излучения космического пространства, РФФИ (руководитель – Лепешкина Е.С.)

Метод снижения подверженности приложений к реализации уязвимостей за счет обфускации машинного кода, гранты аспирантам и молодым ученым на исследования, направленные на обеспечение информационной безопасности для задач цифровой экономики и по государственной поддержке ведущих научных школ Российской Федерации в области информационной безопасности (руководитель – Лубкин И.А.)

2.2 Основные публикации (библиографический список):

1. Kushko E.A., Parotkin N.Y. Software implementation details of the secure data communication protocols stack base on the dynamic network topology / E.A. Kushko, N. Y. Parotkin // Journal of Physics: Conference Series (JPCS) – Krasnoyarsk – 2019

2. Safonov K., Zolotarev V., Derben A. Analysis of attack strategies on game resources for technological processes training games // IOP Conference series, 2019

3. Mozgovoy, D.K., Svinarenko, D.N., Kapustina, S.V., Tsarev, R.Y., Yamskikh, T.N., Kartsan, I.N., Saleh, A.M. Mathematical models of extended objects used for planning submeter resolution satellite imagery // IOP Conference Series: Materials Science and Engineering, 2019. 537 (5), 052037. DOI: 10.1088/1757-899X/537/5/052037

4. Kartsan, I.N., Malanina, Y.N., Zhukov, A.O., Tsarev, R.Y., Efremova, S.V. Methods and means of measuring in-formation exchange among the spacecraft on

the laser connection line // IOP Conference Series: Materials Science and Engineering, 2019. 537 (2), 022029. DOI: 10.1088/1757-899X/537/2/022029

5. Kartsan, I.N., Malanina, Yu.N., Zhukov, A.O., Tsarev, R.Y., Brezitskaya, V.V. Calculation methods of noise immunity of the receivers under the mutual effect of tracking systems and complex tracking systems // IOP Conference Series: Materials Science and Engineering, 2019. 537 (5), 052006. DOI: 10.1088/1757-899X/537/5/052006

6. Gladyshev, A.B., Dmitriev, D.D., Ratuschnyak, V.N., Golubyatnikov, M.A., Kartsan, I.N., Tsarev, R.Yu. Research of accuracy characteristics of measurement of coordinates in the ground-based radio navigation system based on pseudo satellites // IOP Conference Series: Materials Science and Engineering, 2019. 537 (5), 052011. DOI: 10.1088/1757-899X/537/5/052011

7. Semenenko, M.G., Kniazeva, I.V., Beckel, L.S., Rutskiy, V.N., Tsarev, R.Y., Yamskikh, T.N., Kartsan, I.N. How to use neural network and web technologies in modeling complex technical systems // IOP Conference Series: Materials Science and Engineering, 2019. 537 (3), 032095. DOI: 10.1088/1757-899X/537/3/032095

8. Kartsan, I.N., Malanina, Yu.N., Zhukov, A.O., Klimenko, A.V., Tsarev, R.Y. Research of the issues of frequency and time support of the GLONASS system // IOP Conference Series: Materials Science and Engineering, 2019. 537 (5), 052010. DOI: 10.1088/1757-899X/537/5/052010

9. Kartsan, I.N., Malanina, Y.N., Zhukov, A.O., Klimenko, A.V., Tsarev, R.Y. Method for determining the direction to the interference source without the use of additional antennas // IOP Conference Series: Materials Science and Engineering, 2019. 537 (2), 022034. DOI: 1.1088/1757-899X/537/2/022034

10. Podshivalov, I.V., Savishnikov, M.O., Leksikov, A.A., Dmitriev, D.D., Kartsan, I.N. Multi-mode resonator for an ultra-wide bandpass filter with good stopband performance // IOP Conference Series: Materials Science and Engineering, 2019. 537 (5), 052025. DOI: 10.1088/1757-899X/537/5/052025

11. A A Boyko, V V Kukartsev, D V Eremeev, V S Tynchenko, V V Bukhtoyarov and A A Stupina (2019) Imitation-dynamic model for calculating the efficiency of the financial leverage. Journal of Physics: Conference Series, № 1353, с. 012123. DOI: 10.1088/1742-6596/1353/1/012123. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1353/1/012123.

12. V V Bukhtoyarov, V S Tynchenko, E A Petrovsky, V G Zhukov, V V Kukartsev and K A Bashmur (2019) Adaptive robust control of oil and gas production objects. Journal of Physics: Conference Series, № 1353, с. 012056. DOI: 10.1088/1742-6596/1353/1/012056. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1353/1/012056.

13. E A Petrovsky, V A Morozova, K A Bashmur, V S Tynchenko, V V Bukhtoyarov and E A Kozhukhov (2019) Magneto-liquid damping method and analysis of generated dissipative characteristics. Journal of Physics: Conference Series, № 1353, с. 012098. DOI: 10.1088/1742-6596/1353/1/012098. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1353/1/012098.

14. R S Shalaurov, V S Tynchenko, E A Petrovsky, V V Bukhtoyarov, V V Kukartsev and V V Tynchenko (2019) Device for electropulse press-fitting of pipes

into a tube sheet of shell-and-tube heat exchanger. Journal of Physics: Conference Series, № 1353, с. 012049. DOI: 10.1088/1742-6596/1353/1/012049. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1353/1/012049.

15. V V Kukartsev, V S Tynchenko, E A Chzhan, V A Kukartsev, A A Boyko, A A Korneeva and V V Bukhtoyarov (2019) Solving the problem of trucking optimization by automating the management process. Journal of Physics: Conference Series, № 1333, с. 072027. DOI: 10.1088/1742-6596/1333/7/072027. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1333/7/072027.

16. V S Tynchenko, V V Kukartsev, V V Tynchenko, V V Bukhtoyarov, E A Chzhan, V A Kukartsev, A A Boyko (2019) Identifying duplicated ads on property selling and renting websites. Journal of Physics: Conference Series, № 1333, с. 072025. DOI: 10.1088/1742-6596/1333/7/072025. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1333/7/072025.

17. K A Bashmur, E A Petrovsky, I A Mazurov, V V Bukhtoyarov, S V Tynchenko and A A Gorodov (2019) Adaptive vibration absorbing method of torsional vibrations for processing equipment. Journal of Physics: Conference Series, № 1353, с. 012039. DOI: 10.1088/1742-6596/1353/1/012039. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1353/1/012039.

18. A A Pavlenko, V V Tynchenko, V V Bukhtoyarov, A A Boyko, S V Tynchenko and A A Stupina (2019) New method of COBRA parameters comparison. Journal of Physics: Conference Series, № 1353, с. 012114. DOI: 10.1088/1742-6596/1353/1/012114.Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1353/1/012114.

19. A A Stupina, A A Pavlenko, D V Tikhonenko, V V Tynchenko, V V Bukhtoyarov and S V Tynchenko (2019) Study of the point scattering uniform algorithms in R40 space. Journal of Physics: Conference Series, № 1353, с. 012112. DOI: 10.1088/1742-6596/1353/1/012112. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1353/1/012112.

20. K S Terasmes, E A Petrovsky, K A Bashmur, S V Tynchenko, V V Bukhtoyarov and N A Shepeta (2019) Assurance of complex pressure control system operability in high-temperature media. Journal of Physics: Conference Series, № 1353, с. 012055. DOI: 10.1088/1742-6596/1353/1/012055. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1353/1/012055.

21. V V Tynchenko, A A Pavlenko, V V Bukhtoyarov, D V Tikhonenko, S V Tynchenko and A V Tsvettsykh (2019) Formation of initial point of initialization methods for optimization algorithms. Journal of Physics: Conference Series, № 1353, с. 012115. DOI: 10.1088/1742-6596/1353/1/012115. Ссылка: https://iopscience.iop.org/article/10.1088/1742-6596/1353/1/012115.

22. V V Bukhtoyarov, V S Tynchenko, E A Petrovsky, S G Dokshanin and V V Kukartsev (2019) Research of methods for design of regression models of oil and gas refinery technological units. IOP Conf. Series: Materials Science and Engineering, № 537, с. 042078. DOI: 10.1088/1757-899X/537/4/042078. Ссылка: https://iopscience.iop.org/article/10.1088/1757-899X/537/4/042078.

23. S G Dokshanin, V S Tynchenko and V V Bukhtoyarov (2019) The use of greases with ultrafine diamond-graphite powder to reduce a fatigue wear of rolling

bearings. IOP Conf. Series: Materials Science and Engineering, № 537, с. 032057. DOI: 10.1088/1757-899X/537/3/032057. Ссылка: https://iopscience.iop.org/article/10.1088/1757-899X/537/3/032057.

24. S G Dokshanin, V S Tynchenko and V V Bukhtoyarov, K A Bashmur and V V Kukartsev (2019) Investigation of the tribological properties of ultrafine diamond-graphite powder as an additive to greases. IOP Conf. Series: Materials Science and Engineering, № 560, с. 012192. DOI: 10.1088/1757-899X/560/1/012192. Ссылка: https://iopscience.iop.org/article/10.1088/1757-899X/560/1/012192.

25. A V Kukartsev, A A Boyko, V V Kukartsev, V S Tynchenko, V V Bukhtoyarov and S V Tynchenko (2019) Methods of business processes competitiveness increasing of the rocket and space industry enterprise. IOP Conf. Series: Materials Science and Engineering, № 537, с. 042009. DOI: 10.1088/1757-899X/537/4/042009. Ссылка: https://iopscience.iop.org/article/10.1088/1757-899X/537/4/042009.

26. V S Tynchenko, V V Tynchenko, V V Bukhtoyarov, V V Kukartsev, V A Kukartsev and D V Eremeev (2019) Application of Kohonen self-organizing maps to the analysis of enterprises' employees certification results. IOP Conf. Series: Materials Science and Engineering, № 537, с. 042010. DOI: 10.1088/1757-899X/537/4/042010. Ссылка: https://iopscience.iop.org/article/10.1088/1757-899X/537/4/042010.

27. V S Tynchenko, V V Bukhtoyarov, V V Tynchenko, V V Kukartsev and N A Shepeta (2019) Identification and evaluation of reliability factors of main oil pumps. IOP Conf. Series: Materials Science and Engineering, № 560, с. 012126. DOI: 10.1088/1757-899X/560/1/012126. Ссылка: https://iopscience.iop.org/article/10.1088/1757-899X/560/1/012126.

28. V S Tynchenko, V V Bukhtoyarov, E A Petrovskiy, V V Tynchenko and V V Kukartsev (2019) State diagnostics of the working fluid in oil pumping station compressors. IOP Conf. Series: Materials Science and Engineering, № 560, с. 012127. DOI: 10.1088/1757-899X/560/1/012127. Ссылка: https://iopscience.iop.org/article/10.1088/1757-899X/560/1/012127.

29. Marina N. Zhukova, Vyacheslav V. Zolotarev, Vadim G. Zhukov, Anastasya S. Polyakova Anastasya S. Polyakova. Service robot security from unauthorized access by connection control. 2019 12th International Conference Robotics, Sensors and Industry 4.0 (DeSE2019) on the Developments in eSystems Engineering. Proceedings. – Kazan: Kazan Federal University. Russia, Kazan, October 7-10, 2019. - Режим доступа: https://dese.org.uk/developments-in-esystems-engineering-2019/

30. E V Anashkin, M N Zhukova «An Implementation of Artificial Neural Networks into Behavioral Analysis System»: IOP Conference Series: Materials Science and Engineering. 2-nd International Conference "Advanced Technologies in Aerospace, Mechanical and Automation Engineering" - MIST Aerospace-2019. November 18-21, 2019, Krasnoyarsk. - Режим доступа: http://conf.domnit.ru/en/conferences/mist-2019-en/

31. Y.V. Gritskevich (Новосибирск), P.A. Zvyagintseva (Новосибирск),

D.G. Makarova (Новосибирск), M.P. Egorenko (Новосибирск), V.V. Zolotarev Simulation computer model for virtual research of optoelectronic measuring systems / Сибирский журнал науки и технологий, вып. 4, 2019

2.3 Зарегистрированные объекты РИД:

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2.4 Защиты диссертаций:

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2.5 Достижения НИРС (наиболее значимые награды, стипендии, гранты, дипломы и др.):

Голушко А. Москва «Студент года» в области информационной безопасности по версии Национального форума информационной безопасности «Инфофорум»

2.6 Другие (грамоты, награды, лицензии и др.):

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