

ARTIFICIAL INTELLIGENCE IN SECURE INFO COMMUNICATIONS

Moscow Institute of Physics and Technology (National Research University)

Degree or qualification is awarded: **PhD (Candidate of Science)**

Language of study: **English**

Mode of study: **full-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **375 000 RUB**

Programme webpage at the university website:

<https://eng.mipt.ru/programs/infocommunications-and-information-security/>

Programme curator: **Denis Ustyuzhaninov**

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Entry requirements:

- Master's degree / equivalent in a related field
- B2 level of English
- Good track record of publications related to the topic of the intended research
- Strong research proposal 1,500 - 3,500 words

Research supervisor:

[Alexey Nazarov](#)

PhD, DSc

Supervisor's research interests:

- Cloud computing.
- Next Generation Network.
- Quality of Service.
- Info Security.
- Multiple measurements.
- Cloud programming systems and tools.

Research highlights:

- Practical implementation of new developed algorithms and methods.
- Collaboration with ITU.

Supervisor's specific requirements:

- Hadoop.
- MATLAB.

- C/C++.

Main publications:

(In Scopus)

- Anshita Dhoot, A.N. Nazarov & Alireza Nik Aein Koupaei 2020, 'A security Risk Model for Online Banking System', paper presented in the annual Collection of scientific works of International Scientific Conference "2020 SYSTEMS OF SIGNALS GENERATING AND PROCESSING IN THE FIELD OF ON BOARD COMMUNICATIONS", (IEEE Conference #48371), Moscow Technical University of Communication and Informatics (MTUCI), Institute of Electrical and Electronics Engineers (IEEE), Media Publisher Ltd, 2020, 5 p. DOI: 10.1109/IEEECONF48371.2020.9078655]
- A.N. Nazarov, Alireza Nik Aein Koupaei, Anshita Dhoot, Asyraf Azlan & Seyed Milad Ranaei Siadat 2020, 'Mathematical Modelling of Infrastructure as a Service', paper presented in the annual Collection of scientific works of International Scientific Conference "2020 SYSTEMS OF SIGNALS GENERATING AND PROCESSING IN THE FIELD OF ON BOARD COMMUNICATIONS", (IEEE Conference #48371), Moscow Technical University of Communication and Informatics (MTUCI), Institute of Electrical and Electronics Engineers (IEEE), Media Publisher Ltd, 2020, 7 p. DOI: 10.1109/IEEECONF48371.2020.9078629
- Nazarov A.N. Processing streams in a monitoring cluster. Rossiiskii technologicheskii zhurnal = Russian Technological Journal. 2019; Vol. 7, № 6, pp. a54-65.
<https://doi.org/10.32362/2500-316X-2019-7-6-56-67>
- A.N. Nazarov, D.V. Pantiukhin, I.M. Voronkov & M.A. Nazarov 2019 'Intelligent monitoring of cyber attacks' // Proceedings of International Conference on the topic Industry Interactive Innovation in Science, Engineering and Technology (I3SET2019) during 13th & 14th December 2019, JIS College of Engineering (An Autonomous Institute, West Bengal, India), 11 p.
- D.V. Pantiukhin, I.M. Voronkov & A.N. Nazarov 2019 'Intelligent methods for intrusion detection in local area networks' // Proceedings of VI International Conference program "Actual Problems of System and Software Engineering (APSSE 2019)", 12 p.
- Nazarov A., Sychev A, Alireza Nik Aein Koupaei, Sanjeev Kumar Ojha, & Himanshu Rai 2019, 'Statistical compaction of a monitoring cloud cluster resource when processing streaming services' // Proceedings of 6-th International Conference Engineering & Telecommunication - En&T-2019. Moscow, MIPT. November 20-21, 2019, 4 p, DOI: 10.1109/EnT47717.2019.9030598.
- Nazarov. A. & Alireza Nik Aein Koupaei 2019, 'An Architecture Model for Active Cyber Attacks on Intelligence Info-communication Systems: Application Based on Advance System Encryption(AES-512) Using Pre-Encrypted Search Table and Pseudo-Random Functions(PRFs)' // Proceedings of 6-th International Conference Engineering & Telecommunication - En&T-2019. Moscow, MIPT. November 20-21, 2019, 6 p, DOI: 10.1109/EnT47717.2019.9030541.
- Alexey N. Nazarov, Artem K. Sychev, Ilia M. Voronkov. The Role of Datasets when Building Next Generation Intrusion Detection Systems // Proceedings of the International Conference "Wave Electronics and its Application in Information and Telecommunication Systems (WECONF)". IEEE # 47647. Saint Petersburg State University of Aerospace Instrumentation. June 03-07, 2019, 4 p., DOI: 10.1109/WECONF.2019.8840124.
- Nazarov A. & Alireza Nik Aein Koupaei 2019, 'Models of risk of attack of University infocommunication system', paper presented in the annual Collection of scientific works of International Scientific Conference "2019 SYSTEMS OF SIGNALS GENERATING AND PROCESSING IN THE FIELD OF ON BOARD COMMUNICATIONS", (IEEE Conference #46544), Moscow Technical University of Communication and Informatics (MTUCI), Institute of Electrical and Electronics Engineers (IEEE), Media Publisher Ltd, 2019, 8 p. DOI: 10.1109/SOSG.2019.8706780.
- A. Nazarov, A. Sychev. The risk-models and risk criteria for information confrontation in social media // Proceedings IEEE International Conference on Advances in Computing, Communication Control and Networking (ICACCCN-2018), pp.302-306. IEEE Conference Record Number: #43907 IEEE ISBN No. # 978-1-5386-4119-4, DOI: 10.1109/ICACCCN.2018.8748308.
- Alexey N. Nazarov, Abhishek Vaish, Ilia M. Voronkov, Sunakshi Singh, Nitish Kumar Ojha.

Methodology for Detecting Traces of Preparation for Cyber Attacks// Proceedings of 5th International Conference Engineering & Telecommunication - En&T-2018. Moscow, MIPT. November 15-16, 2018, 4 p., DOI: 10.1109/EnT-MIPT.2018.00010.

- Alexey N. Nazarov, Ilia M. Voronkov, Sergei A. Zhestkov. The Approaches to Assessing the Quality and Security of Mobile Application Content// Proceeding of 5th International Conference Engineering & Telecommunication - En&T-2018. Moscow, MIPT. November 15-16, 2018, 11 p, DOI: 10.1109/EnT-MIPT.2018.00011.
- Susmita Das, Sudipta Paul, Sanjeev Kumar Ojha, Biswarup Neogi, Alexey Nazarov, Joydev Ghosh, Sudeshna Ghosh. On Design and Implementation of an Artificial Lower Limb// International Journal of Sensors, Wireless Communications and Control, Volume 8, Issue 2, 2018, pp.100-108. DOI: 10.2174/2211556007666180606075218.
- Nazarov A. & Mikhalevich, I 2018, 'Methodology development and implementation of protected hardware and software platform based on the existing', paper presented in the annual Collection of scientific works of International conference "2018 Systems of signals generating and processing in the field of on board communications", (IEEE Conference #43917), Moscow. New York, NY, USA: IEEE Catalog Number CFP 18O83-ART, 2018. - 3p. DOI: 10.1109/SOSG.2018.8350623.
<https://ieeexplore.ieee.org/document/8350623/>

Specializations within this programme