

# FUTURE WIRELESS NETWORKS

## 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 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:

[Evgeny Khorov](#)

PhD

### Supervisor's research interests:

Evgeny Khorov is a world-level expert in wireless networks doing research on future Wi-Fi and 5G+ systems. In his early thirties, he has authored over 100 papers and led many national and international projects sponsored by academia foundations and industry. He is also a voting member and contributor of IEEE 802.11 that develops and standardizes Wi-Fi. His research interests are related to QoS provisioning for future applications in wireless networks, multiple channels access, resource allocation in dense networks, multi-antennae systems, and the Internet of Things. He has designed numerous algorithms and protocols that were highly evaluated by the community and industry and won a dozen prestigious awards.

### Research highlights:

- Research+ Innovation + Standardization.
- Work on future technologies that will change our life.
- International conferences, top journals.
- Participation in industrial and academic projects.
- Friendly team.

### Supervisor's specific requirements:

- Understanding of telecommunication protocols.
- Good knowledge in math and physics.
- C++, Python.
- Strong will to success.

## **Main publications:**

- E. Khorov, A. Krasilov, I. Selnitskiy, I.F. Akyildiz. A Framework to Maximize the Capacity of 5G Systems for Ultra-Reliable Low-Latency Communications. IEEE Transactions on Mobile Computing, 2020.
- E. Khorov, I. Levitsky, I.F. Akyildiz. Current Status and Directions of IEEE 802.11be, the Future Wi-Fi 7. IEEE Access, 2020.
- E. Khorov, A. Kureev, I. Levitsky, I.F. Akyildiz. Prototyping and Experimental Study of Non-Orthogonal Multiple Access in Wi-Fi Networks. IEEE Networks, 2020.
- E. Khorov, A. Kiryanov, A. Lyakhov, G. Bianchi. A Tutorial on IEEE 802.11ax High-Efficiency WLANs. IEEE Communications Surveys & Tutorials, Vol. 21, Issue 1, Firstquarter 2019.
- D. Bankov, E. Khorov, A. Lyakhov. LoRaWAN Modeling and MCS Allocation to Satisfy Heterogeneous QoS Requirements. Sensors 2019. Vol. 19. No. 19. P. 1-23.
- E. Khorov, A. Krotov, A. Lyakhov, R. Yusupov, M. Condoluci, M. Dohler, I.F. Akyildiz. Enabling the Internet of Things with Wi-Fi Halow-Performance Evaluation of the Restricted Access Window. IEEE Access, Vol. 7, pp. 127402-127415, 2019.

## **Specializations within this programme**