

ITMO UNIVERSITY

Saint Petersburg, Russia

ITMO
Password is

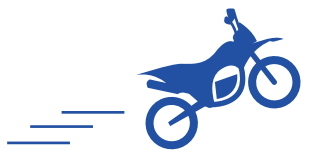


THE ONLY REASON «AGAINST»

ITMO IS NOT A CLASSICAL UNIVERSITY



VS



CLASSICAL
UNIVERSITY

ITMO UNIVERSITY

- Dynamic
- Entrepreneurial-minded
- Open
- Creative
- Flexible

Non-classical University goes
for non-classical and fresh solutions!

SLOWER
TRAFFIC
KEEP
RIGHT



LEVEL 5
2021

LEVEL 4
2018-2020

ITMO UNIVERSITY

CALLING 2017



Saturday, March 18, 2017

100%



TUe



Ku Leuven



ParisTech



UvA



NTU



ITMO



ANU



UCLA



Horizon 2020



Siemens



Samsung



XFEL

[Back](#)

Contacts

[Done](#)

All

Missed

[Edit](#)

		Olga Golodets mobile	08:12	
		Olga Vasilyeva iPhone	20:33	
		Andrei Volkov Work	13:12	
		Alexander Abramov mobile	14:45	
		Philip G. Altbach mobile	11:09	
		Michael M. Crow Work	18:16	
		Koenraad Debackere Work	19:01	
		Malcolm J. Grant mobile	09:53	
		Herman Gref Google Pixel	16:27	
		Valery Kozlov mobile	12:16	
		Weifang Min Work	17:33	
		Lap-Chee Tsui mobile	13:41	



100%

ITMO 2016: Recent Entries



№56
in Computer Science



Third best
international
web site



UNESCO Medal
for unique university
environment



Nature Rising Star



Fifth best
accelerator
in the world



Instagram

✓ Any.DO

Done



2016



- International Research Centers ✓
- Three Schools up and running ✓
- Non-classical University ✓
- Fellowship & Professorship Program ✓
- Translational Medicine, Urban Studies, Art & Science, Science Communication ✓
- World Champions Programming School ✓
- Student ambassadors ✓



Download in progress 2017

100%



90%

Graduate-level
university



80%

5 Schools



60%

Educational
transformation



30%

ITMO family



40%

Biochemical cluster



60%

National Tech Initiative



10%

Export of education based
on Artificial Intelligence



100%

OPEN

ITMO-talent search
system



0%

Outdated software

ITMO is ready for global challenges



Data Overload

Metamaterials and Nanostructures



Cyber Threats

Quantum Communications



Population Aging

Digital Healthcare

ITMO Areas of Excellence



Photonics



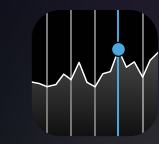
Smart materials



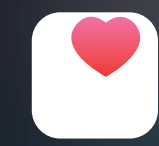
Robotics and Control



Big Data



Artificial Intelligence



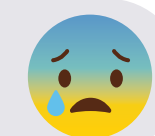
Translational Medicine

Breakthrough Projects

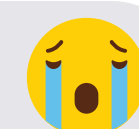


From Metamaterials and Nanostructures to Photonics for ICT

50x increase of volume of information transmitted in the last ten years!!!



10% of all electric energy in the world is consumed by Internet!



400Gb/s need for extra bandwidth continues to increase rapidly!!!



School "ITMO Photonics" — Russian leader in Photonics

Is there a solution to all of it?

Devices for all-optical data processing

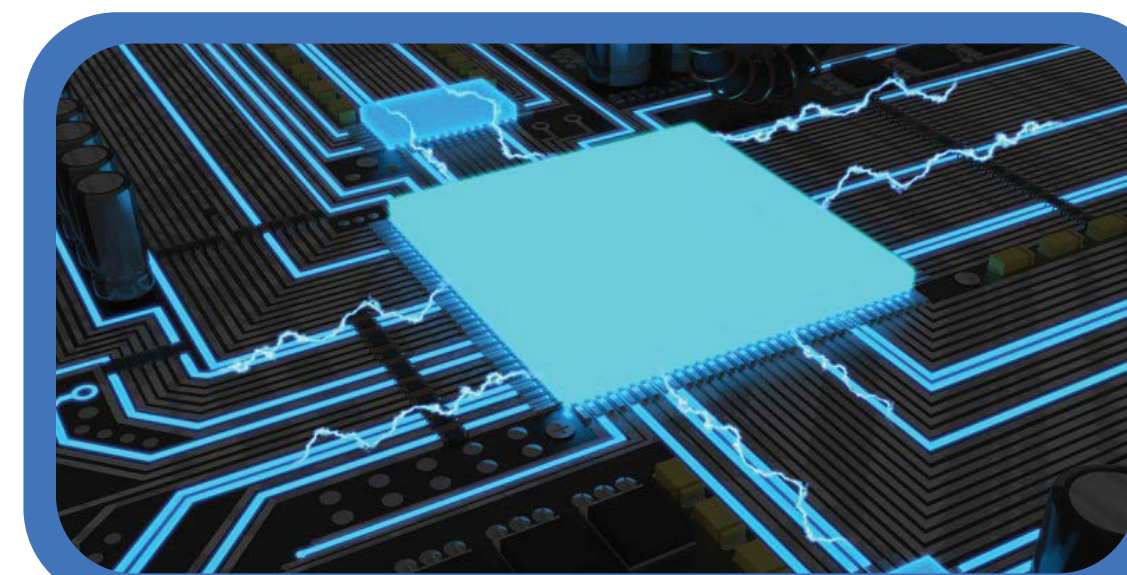
Current partners in tackling this?



THE RESULT: new post-electronic solution for information transfer and processing



Prof. Vladislav Bougrov, Dean
School "ITMO Photonics"





Long-Distance High-Speed Quantum Communication for Cyber-Physical Systems

Is there a cutting-edge technology to protect myself in a reality of Internet of Things and Industrial Internet of Things???



Long-distance high-speed quantum communication for cyber-physical systems

WOW! How did you come up with it?

We combined Ideas, achievements and experiences of two ITMO Schools – Photonics and Computer Technologies & Control

Are such systems real? Do they work?

There are three testing grounds at ITMO: in St. Petersburg, Kazan and Samara for these type of scalable breakthrough projects

Solid partners cooperate with us



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Schneider
Electric



UNIVERSITY OF
ROCHESTER



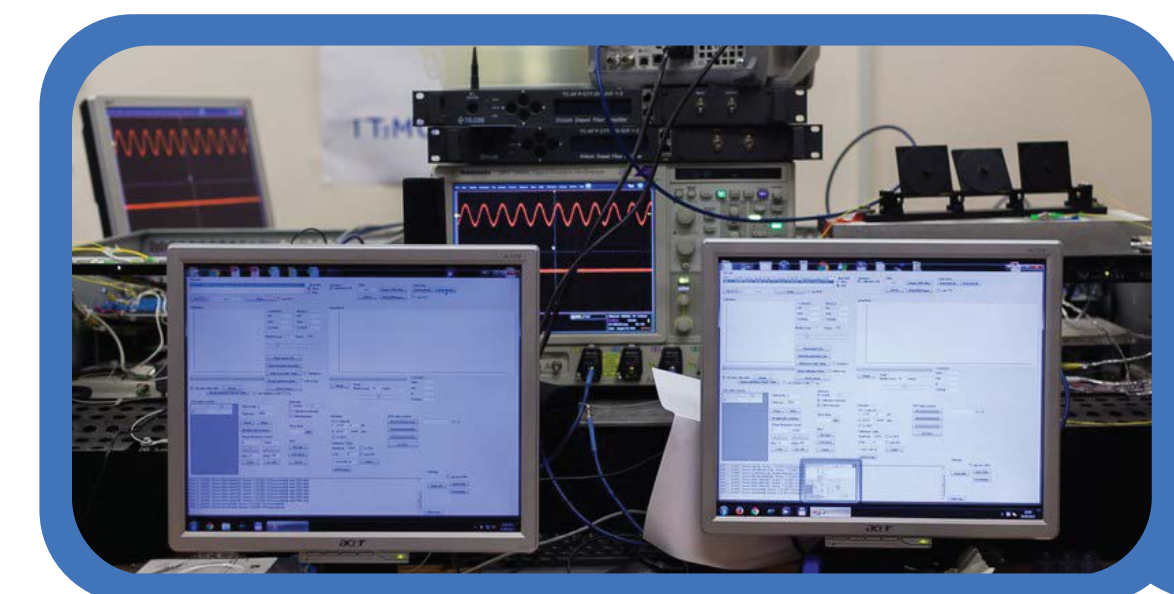
THE RESULT: Quantum network for safe control of interconnected cyber-physical systems



**Prof.
Sergey Kozlov**
School "ITMO Photonics"



**Prof.
Sergey Koluybin**
School "Computer
Technologies & Control"





ITMO breakthrough project

100%

Urban Health Decision Support System: from Big Data to Predictive Models

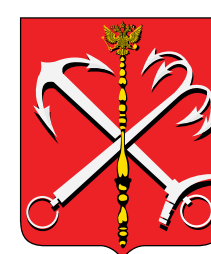
St. Petersburg is facing population aging challenge.
How can your Big Data and Computer modeling help here? 😊



Urban Health Decision Support System: from Big Data to predictive models.
We develop math and IT solutions for complex areas
(like public health) where they were not used before.

Is it only relevant to Saint Petersburg?

Not at all! After trial in St. Petersburg in 2018,
ITMO is going to launch the project in Netherlands in 2019.



THE RESULT: Healthcare decision support system.
Improving quality of life!



**Prof. Alexander
Boukhanovskiy,**
Dean, School
"Translational
Information
Technologies"



