

2022

Industrial Immersion Project Book

Program partner companies in 2022

- 1.ABBYY
- 2.AbsoluteTech
- 3.Alfa-Bank
- 4.Alfasatcom
- 5.Applied Computational Technologies
6. **Company name is protected by NDA*
- 7.Artificial Intelligent Research Institute (AIRI)
- 8.Avatarify AI
- 9.Belka Technology
- 10.Bioimaging
- 11.Biomimetix
- 12.Biomolecule
- 13.Biotech Campus
- 14.Bloomtech
- 15.BostonGene
- 16.Cloning Facility
- 17.CompMechLab
- 18.Composite Vision
- 19.Core Technologies
- 20.Cryptochemistry
- 21.Crystera
- 22.Cyberphysics
- 23.Diagnostic and Telemedicine Center
- 24.Digital Petroleum
- 25.FlexLab
- 26.Gazpromneft STC
- 27.Gazpromneft Technological Partnerships
- 28.Genetico
- 29.Genomed
30. **Company name is protected by NDA*
- 31.International Gymnasium of the Skolkovo Innovation Center
- 32.International Laboratory of Stochastic Algorithms and High Dimensional Inference
- 33.Institute of Laser and Welding Technologies (ILIST)
- 34.InPiezo
- 35.Insilico
- 36.Intelligent Ideas
- 37.Integrant
- 38.IPG / IRE-Polus
- 39.IQsoft
- 40.IRA Labs
- 41.Kintech Lab
- 42.Knowledge Genesis
- 43.Kosima
- 44.KosmoLab
- 45.LabAdvance
- 46.Market Council
- 47.Matrix Wave
- 48.M-Granat
- 49.MolTech
- 50.Motorica
- 51.MRM Proteomics R
- 52.M&S decisions
- 53.MTS
- 54.Nanosemantics Lab
- 55.NPP Impulse
- 56.Navigine
- 57.Neurotrend
- 58.Nissan
- 59.Novaprint 3D
- 60.Novosibirsk R&T Centre (NNTC)
- 61.OZON
- 62.OilGene
- 63.Onder
- 64.Open Longevity
- 65.Philips
- 66.PhisTech
- 67.Piklema Predictive
- 68.Pipe Metallurgical Company (TMK)
- 69.Plan-S Satellite and Space Technologies
- 70.Platform 3 opinion
- 71.Perm Research and Production Instrument-Making Company (PNPPK)
- 72.Qrate
- 73.Quicktoken
- 74.Research Complex, Center for Technological Provision in Novosibirsk Academgorodok Technopark (IK CTO)
- 75.Research Institute of Railway Transport (VNIIZhT)
- 76.Rosebud AI
- 77.RSHB-Intech
- 78.Russian Quantum Centre (RQC)
- 79.Rustor
- 80.Samsung
- 81.Sakhalin Energy
- 82.Sberbank
- 83.SberMedAI
- 84.Siberian Generating Company
- 85.Sintez
- 86.Smart Staffing
- 87.SoKo
- 88.South Geotherm SPE
- 89.Space Technology and Services Centre
- 90.Tekvel
- 91.Tesart
- 92.Tesis
- 93.TetraQuant
- 94.Tevian
- 95.Tirphotonics
- 96.Troitsk Engineering Center
- 97.TrackTrack
- 98.Tsuru Robotics
99. Unim
100. Vein CV
101. Vibrant
102. Visillect
103. VisionLabs
104. Yandex
105. Yevdokimov MSUMD, Orthodontics Lab

Projects areas

Advanced Computational Science	mathematical modelling, modelling and automation of search, parallel computing, experiment automation
Advanced Manufacturing Technologies	functional materials, additive technologies, composite materials, mathematical modeling
Data Science	big data, data analytics, Artificial Intelligence
Energy Systems	energy markets, Artificial Intelligence in energy industry
Internet of Things & Wireless Technologies	next generation wireless, data analysis, biomedical imaging, UAV, VR, information security, BCI, navigation systems
Life Sciences	genetic engineering, bioinformatics, infectious diseases, neurotechnologies, agricultural technologies, medical genetics
Materials Science	materials modeling, optimization of methods for synthesis of materials, measurement of material properties, research of electrochemical sensors
Petroleum Engineering	EOR, geomechanics, mathematical modelling, unconventional and hard to recover hydrocarbons, basin modelling
Photonics and Quantum Materials	laser technologies, optical and antenna elements, quantum algorithms, nanomaterials, biophotonics
Space and Engineering Systems	systems Engineering (+MBSE), the Earth remote sensing image processing, small space devices, robotics

Advanced Computational Science (ACS)

1. Gazpromneft STC
2. Samsung
3. Sberbank

4. Vein CV
5. Sintez
6. Yandex



**Industrial
Immersion
Coordinator**

Victoria Brighton



*Students
Number*









*Group
Project*



*Interdisciplinary
Group Project*

** Including 1 interdisciplinary project with DS*

Advanced Computational Science

<div> SCIENCE & TECHNOLOGY CENTER</div> <div>Refinement of the prototype of the automatic search for the optimal field development system</div> <div>Skoltech supervisor Vladimir Palyulin</div> <div>1 person icon</div> <div>offline</div>	<div></div> <div>Develop automation tools for handling experiment results and visual reporting Develop and configure tools to control integrity and synchronize data</div> <div>Skoltech supervisor Ivan Oseledets</div> <div>2 people icon</div> <div>hybrid</div>	<div></div> <div>AutoTS framework in time series analysis</div> <div>Skoltech supervisor Sergey Rykovanov</div> <div>1 person icon</div> <div>offline</div>
<div> combining the best</div> <div>Dataset for monitoring of natural resources</div> <div>Skoltech supervisor Evgeny Burnaev</div> <div>2 people icon</div> <div>hybrid</div>	<div></div> <div>Deep Learning Model development for Medical Image Analysis in Oncology <i>* Interdisciplinary with DS</i></div> <div>Skoltech supervisor Alexey Vishnyakov</div> <div>1/3* people icon</div> <div>offline</div>	<div></div> <div>Optimization of map-reduce operations with large mmaped-files due to multithreaded calculations</div> <div>Skoltech supervisor Sergey Rykovanov</div> <div>1 person icon</div> <div>hybrid</div>

Advanced Manufacturing Technologies (AMT)

1. Applied Computational Technologies

2. **Company name is protected by a NDA*

3. Bioimaging

4. CompMechLab

5. Composite Vision

6. Cyberphysics

7. Diagnostic and Telemedicine Center
8. Industrial Project, Skoltech*

9. InPiezo

10. Institute of Laser and Welding Technologies (ILIST)

11. Research Complex, Center for Technological Provision in Novosibirsk Technopark (IK CTO)
12. Nissan

13. Pipe Metallurgical Company (TMK)

14. Research Institute of Railway Transport (VNIIZhT)

15. Sberbank

16. Thesis



Industrial
Immersion
Coordinator

Dmitry Krasovsky



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Number



Group
Project



Interdisciplinary
Group Project

** Company name is protected by NDA*






Advanced Manufacturing Technologies

<div>Applied Computational Technologies</div> <div>Gasdynamics of detonation thermal spray system</div> <div>Skoltech supervisor Dmitry Krasovsky</div> <div>offline</div> <div>1 person icon</div>	<div>Company name is protected by a NDA</div> <div>Time-series forecasting with neural networks</div> <div>Skoltech supervisor Timur Aslyamov</div> <div>offline</div> <div>1 person icon</div>	<div>Company name is protected by a NDA</div> <div>Visualization for oil & gas industry using streamlit</div> <div>Skoltech supervisor Petr Zhilyaev</div> <div>offline</div> <div>1 person icon</div>
<div>BIOIMAGING</div> <div>Studies of the optical properties of two dimensional MoS2</div> <div>Skoltech supervisor Stanislav Evlashin</div> <div>offline</div> <div>1 person icon</div>	<div>CML CompMechLab</div> <div>Validation of micromechanics properties of polymer composite materials</div> <div>Skoltech supervisor Ivan Sergeichev</div> <div>offline</div> <div>1 person icon</div>	<div>COMPOSITE VISION</div> <div>Sk resident Skoltech startup</div> <div>Development of a Method for Forming Synthetic Data of Inhomogeneities of Composite Materials Using CAD Tools</div> <div>Skoltech supervisor Alexander Safonov</div> <div>offline</div> <div>1 person icon</div>

Advanced Manufacturing Technologies

<div><div></div><div><div>Sk resident</div><div>Skoltech startup</div></div><div>1 person icon</div></div> <div><p>Using a hybrid approach in predictive analytics of electric power plants</p></div> <div><div>Skoltech supervisor</div><div>Ighor Uzhinsky</div><div>offline</div></div>	<div><div></div><div>Diagnostic and Telemedicine Center</div><div>1 person icon</div></div> <div><p>Estimation of parameters of the object's vibrations, leading to registration of a Doppler twinkling artifact on a screen of an ultrasound scanner, by a laser vibrometer</p></div> <div><div>Skoltech supervisor</div><div>Loic Salles</div><div>offline</div></div>	<div><div>Skoltech</div><div>Numerical modeling of delivery and pool melting for power of two dissimilar alloys during DED</div><div><div>Skoltech R&D project. Company name is protected by NDA</div></div><div><div>Skoltech supervisor</div><div>Igor Shishkovsky</div><div>offline</div></div></div>
<div><div></div><div>3 people icon</div></div> <div><p>Development of a rigid piezo actuator for a piezoelectric motor</p></div> <div><div>Skoltech supervisor</div><div>Igor Shishkovsky</div><div>offline</div></div>	<div><div></div><div>1 person icon</div></div> <div><p>Direct Metal Deposition of gradient alloys</p></div> <div><div>Skoltech supervisor</div><div>Stanislav Evlashin</div><div>offline</div></div>	<div><div></div><div>Research Complex, Center for Technological Provision in Novosibirsk Academgorodok Technopark</div><div>1 person icon</div></div> <div><p>Research and analysis of physical and mechanical properties of polymer composite materials</p></div> <div><div>Skoltech supervisor</div><div>Ivan Sergeichev</div><div>offline</div></div>

Advanced Manufacturing Technologies

<div></div> <div>3D modelling efficient architecture for lithium-ion batteries components using innovative approach of parametric modelling based on functional representation, with the calculation of the capacity and power performance</div> <div><div>Skoltech supervisor</div><div>Evgenii Maltsev</div></div> <div><div>2</div><div>offline</div></div>	<div></div> <div>Pipe Metallurgical Company (TMK)</div> <div>Materials characterization and corrosion evaluation of functional materials and coatings used in oil gas industry</div> <div><div>Skoltech supervisor</div><div>Dmitriy Dzhurinskiy</div></div> <div><div>1</div><div>offline</div></div>	<div></div> <div>Research Institute of Railway Transport (VNIIZhT)</div> <div>Development and use of functional models as a predictive analytics tool for complex systems</div> <div><div>Skoltech supervisor</div><div>Loic Salles</div></div> <div><div>1</div><div>offline</div></div>
<div></div> <div>Design of stable legged robot locomotion algorithms for walking up- and downstairs</div> <div><div>Skoltech supervisor</div><div>Pavel Osinenko</div></div> <div><div>1</div><div>offline</div></div>	<div></div> <div>Solving hydrodynamic tasks using the FlowVision software package</div> <div><div>Skoltech supervisor</div><div>Aslan Kasimov</div></div> <div><div>1</div><div>offline</div></div>	

Data Science (DS)

- | | | |
|---|------------------------|--|
| 1. ABBYY | 10. IQsoft | 22. Samsung |
| 2. AbsoluteTech | 11. IRA Labs | 23. Sberbank |
| 3. Alfa-Bank | 12. MRM Proteomics R | 24. Tevian |
| 4. <i>*Company name is protected by NDA</i> | 13. MTS | 25. TrackTrack |
| 5. Artificial Intelligent Research Institute (AIRI) | 14. Nanosemantics Lab | 26. Vein CV |
| 6. Avatarify AI | 15. Onder | 27. Visillect |
| 7. Belka Technology | 16. Piklema Predictive | 28. VisionLabs |
| 8. Huawei | 17. Philips | 29. Yandex |
| 9. International Laboratory of Stochastic Algorithms and High Dimensional Inference | 18. Platform 3 opinion | 30. Yevdokimov MSUMD, Orthodontics Lab |
| | 19. Quicktoken | |
| | 20. Rosebud AI | |
| | 21. RSHB-Intech | |



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*Students
Number*








*Group
Project*




*Interdisciplinary
Group Project*

** Including 2 interdisciplinary projects with ACS and IoTWT*

Data Science

<div></div> <div>Text simplification in Russian</div> <div><div>Skoltech supervisor</div><div>Elena Gryazina</div></div> <div>1 person icon</div> <div>hybrid</div>	<div><div>AbsolutTech</div><div></div></div> <div>Development of an algorithm for dynamic pricing of insurance objects (cars) for a more transparent determination of the sum insured relative to the market</div> <div><div>Skoltech supervisor</div><div>Alexey Zaytsev, Maxim Panov</div></div> <div>3 people icon</div> <div>Sk resident</div> <div>hybrid</div>	<div></div> <div>Develop a group of treatment sensitivity estimation models for financial products pricing procedures</div> <div><div>Skoltech supervisor</div><div>Maxim Panov</div></div> <div>1 person icon</div> <div>offline</div>
<div><div>Company name is protected by NDA</div></div> <div>Self-supervised learning in identifying unplanned drilling events</div> <div><div>Skoltech supervisor</div><div>Alexey Zaytsev</div></div> <div>1 person icon</div> <div>hybrid</div>	<div></div> <div>Constructing an effective ensemble of models from a single self-supervised pre-trained neural network</div> <div><div>Skoltech supervisor</div><div>Dmitry Dylov</div></div> <div>1 person icon</div> <div>hybrid</div>	<div></div> <div>Improving source code readability using neural network algorithms</div> <div><div>Skoltech supervisor</div><div>Sergey Rykovanov</div></div> <div>1 person icon</div> <div>hybrid</div>


Data Science

<div><div><div><div></div><div>AVATARIFY</div><div>AI Face Animator</div></div></div><div>Camera pose confidence estimation for visual localization task</div><div><div>Skoltech supervisor</div><div>Evgeny Burnaev</div><div>offline</div></div></div> <div>1 person</div>	<div><div><div><div>BELKA TECHNOLOGY</div><div>High load system development for data processing</div><div><div>Skoltech supervisor</div><div>Sergey Rykovanov</div><div>offline</div></div></div></div><div>1 person</div></div>	<div><div><div><div>Company name is protected by NDA</div><div>Mathematical models and optimization in cloud computing problems</div><div><div>Skoltech supervisor</div><div>Maxim Panov</div><div>hybrid</div></div></div></div><div>1 person</div></div>
<div><div><div><div>Company name is protected by NDA</div><div>Research of methods of compression and acceleration of neural networks</div><div><div>Skoltech supervisor</div><div>Alexey Zaytsev</div><div>offline</div></div></div></div><div>1 person</div></div>	<div><div><div><div>Company name is protected by NDA</div><div>Development of Language models for Question Answering and Code</div><div><div>Skoltech supervisor</div><div>Maxim Panov</div><div>offline</div></div></div></div><div>1 person</div></div>	<div><div><div><div>Company name is protected by NDA</div><div>Learnable variance stabilizing transformation of denoising task</div><div><div>Skoltech supervisor</div><div>Maxim Panov</div><div>offline</div></div></div></div><div>1 person</div></div>

Data Science

<div>Company name is protected by NDA</div> <div>2</div> <div>Development of deep neural networks with long short-term memory (LSTM) in lossless compression</div> <div>Training adaptive hash functions in lossless compression</div> <div>Skoltech supervisor</div> <div>Maxim Panov, Yury Yanovich</div> <div>online</div>	<div>Company name is protected by NDA</div> <div>1</div> <div>RGB-D Reconstruction of 3D objects</div> <div>Skoltech supervisor</div> <div>Alexey Artemov</div> <div>offline</div>	<div>Company name is protected by NDA</div> <div>1</div> <div>Energy shaping for digital subcarrier modulation for fiber non-linearity mitigation</div> <div>Skoltech supervisor</div> <div>Alexey Frolov</div> <div>offline</div>
<div>Company name is protected by NDA</div> <div>1</div> <div>Multilingual ASR solution for mining Speech-to-Speech translation data</div> <div>Skoltech supervisor</div> <div>Evgeny Burnaev</div> <div>offline</div>	<div>Company name is protected by NDA</div> <div>2</div> <div>Cache utilization optimization by using run-time traces</div> <div>Skoltech supervisor</div> <div>Ivan Oseledets, Evgeny Burnaev</div> <div>offline</div>	<div>Company name is protected by NDA</div> <div>2</div> <div>Topological Data Analysis for Synthetic Speech Detection</div> <div>Skoltech supervisor</div> <div>Evgeny Burnaev</div> <div>offline</div>

Data Science



HDI Lab


1 person

Development and verification of anomaly detection algorithms with application to the task of detecting suspicious transactions

Skoltech supervisor

Maxim Panov

offline



Yandex

1 person

Development of reinforcement learning algorithms with applications to the trajectory generation problem for traffic agents

Skoltech supervisor

Maxim Panov

offline



1 person

Development of computer vision algorithm

Skoltech supervisor

Alexander Panchenko

hybrid



Sk resident

Skoltech startup


1 person

Self-learning in medical image segmentation problems for meta-learning problems

Skoltech supervisor

Mikhail Belyaev

hybrid



Sk resident

Skoltech startup


1 person

Estimation of uncertainty of models for localization of key points on medical images

Skoltech supervisor

Mikhail Belyaev

hybrid



Sk resident

Skoltech startup

1 person

Segmentation of 3-D medical images based on object geometry to search for rare pathologies

Skoltech supervisor

Mikhail Belyaev

hybrid

Data Science

Sk resident

Skoltech startup

1

person icon

MRM Proteomics R

Knowledge graph for the analysis of biomedical data on bacterial molecular targets, antibiotics and antimicrobial resistance

Skoltech supervisor

Alexander Panchenko

hybrid

MTS

1

person icon

Ticketland Recommender System

Skoltech supervisor

Evgeny Frolov

offline

Nanosemantics

Sk resident

Skoltech startup

2

person icon

Creation of DeepFake Video using neural networks

Skoltech supervisor

Alexey Artemov, Maxim Panov

hybrid

Nanosemantics

Sk resident

Skoltech startup

2

person icon

Development of a prototype service for noise reduction in audio with speech

Skoltech supervisor

Ivan Oseledets, Maxim Panov

hybrid

ONDER

1

person icon

Development of a distributed ledger microservice for a system of settlements and payments between users and resource providers based on blockchain technology

Skoltech supervisor

Andrzej Cichocki

hybrid

Piklema Predictive

Sk resident

1

person icon


Research of the decision support system for haul truck drivers

Skoltech supervisor


Elena Gryazina

hybrid


Data Science

<div></div> <div>Multiple-phase segmentation of the pancreas</div> <div><div>Skoltech supervisor</div><div>Dmitry Dylov</div></div> <div>1 person icon</div> <div>offline</div>	<div></div> <div>Develop neural networks for segmentation of lines and tubes in x-ray medical images</div> <div><div>Skoltech supervisor</div><div>Dmitry Dylov</div></div> <div>1 person icon</div> <div>offline</div>	<div></div> <div>Compression of raw CT data</div> <div><div>Skoltech supervisor</div><div>Dmitry Dylov</div></div> <div>1 person icon</div> <div>offline</div>
<div><div></div><div>Sk resident</div></div> <div>Development of a decision-making system for AI video analytics</div> <div><div>Skoltech supervisor</div><div>Ivan Oseledets</div></div> <div>1 person icon</div> <div>hybrid</div>	<div><div></div><div>Sk resident</div></div> <div>Development of a service for the search and classification of leukocytes on bone marrow blood smears</div> <div><div>Skoltech supervisor</div><div>Ivan Oseledets</div></div> <div>1 person icon</div> <div>hybrid</div>	<div></div> <div>Tokenization of loan portfolios in numbers</div> <div><div>Skoltech supervisor</div><div>Yury Yanovich</div></div> <div>2 people icon</div> <div>hybrid</div>

Data Science

<div>> ROSEBUD.AI</div> <div>Research of methods to guide generative content creation</div> <div>Skoltech supervisor Andrzej Cichocki</div> <div>1 person icon</div> <div>hybrid</div>	<div><div>RSHB-INTECH</div><div>PCXB-INTEX</div></div> <div>Development of a predictive model for identifying customers who are not inclined to return to the http://svoe-rodnoe.ru/ website</div> <div>Skoltech supervisor Maxim Panov</div> <div>1 person icon</div> <div>offline</div>	<div>SAMSUNG</div> <div>Development of a method for 3D segmentation and 3D object detection based on a fully convolutional neural network model</div> <div>Skoltech supervisor Anh-Huy Phan</div> <div>1 person icon</div> <div>hybrid</div>
<div>SAMSUNG</div> <div>Segmentation of object materials for 3D reconstruction</div> <div>Skoltech supervisor Victor Lempitsky</div> <div>1 person icon</div> <div>hybrid</div>	<div>SAMSUNG</div> <div>Analyze and compare methods for StyleGANv3 inversion and image editing</div> <div>Skoltech supervisor Maxim Panov</div> <div>1 person icon</div> <div>hybrid</div>	<div>SAMSUNG</div> <div>Develop a faster inference algorithm in diffusion models</div> <div>Develop an algorithm for distillation of a given diffusion model</div> <div>Skoltech supervisor Evgeny Burnaev, Maxim Panov</div> <div>2 people icon</div> <div>hybrid</div>

Data Science

<div><div>SAMSUNG</div><div>3人</div><div>Developing method for learnable real-time predictive rendering of head-avatars</div><div>Skoltech supervisor Maxim Panov, Serguei Barannikov</div><div>hybrid</div></div>	<div><div>SAMSUNG</div><div>2人</div><div>Study and Implementation of Neural Matchers and semantics for visual localization Study and implementation Visual Place Recognition for camera global localization</div><div>Skoltech supervisor Gonzalo Ferrer</div><div>hybrid</div></div>	<div><div>SAMSUNG</div><div>1人</div><div>Study and Implementation of map creation algorithm for Indoor positioning system</div><div>Skoltech supervisor Alexander Panchenko</div><div>hybrid</div></div>
<div><div>SAMSUNG</div><div>1人</div><div>Investigating user input patterns for interactive image segmentation</div><div>Skoltech supervisor Alexey Zaytsev</div><div>hybrid</div></div>	<div><div>SAMSUNG</div><div>1人</div><div>Developing megapixel one-shot mesh-based avatars</div><div>Skoltech supervisor Victor Lempitsky</div><div>hybrid</div></div>	<div><div>SBERBANK</div><div>1人</div><div>Exploring alternative data for banking CRM applications</div><div>Skoltech supervisor Alexander Zhrebker</div><div>offline</div></div>

Data Science

<div></div> <div>1 person</div> <div>Develop algorithms for visual signature verification in documents</div> <div>Skoltech supervisor Andrey Somov</div> <div>hybrid</div>	<div></div> <div>1 person</div> <div>Development of a universal authority to increase the accuracy of identifying connections between legal act and it's draft</div> <div>Skoltech supervisor Maxim Panov</div> <div>hybrid</div>	<div><div></div><div>Sk resident Skoltech startup</div><div>2/3* people</div></div> <div>Development of a model for segmentation and analysis of medical images of vasculature</div> <div>* <i>Interdisciplinary with IOTWT</i></div> <div>Skoltech supervisor Pavel Osinenko, Evgeny Nikolaev</div> <div> hybrid</div>
<div><div></div><div>Sk resident Skoltech startup</div><div>2/3* people</div></div> <div>Deep Learning Model development for Medical Image Analysis in Oncology</div> <div>* <i>Interdisciplinary with ACS</i></div> <div>Skoltech supervisor Maxim Panov, Alexey Zaytsev</div> <div> hybrid</div>	<div><div></div><div>Sk resident Skoltech startup</div><div>1 person</div></div> <div>Face-Skull Transfer Learning</div> <div>Skoltech supervisor Ivan Oseledets</div> <div>hybrid</div>	<div><div></div><div>Sk resident Skoltech startup</div><div>1 person</div></div> <div>Stack-based denoising analysis</div> <div>Skoltech supervisor Dmitry Dylov</div> <div>hybrid</div>

Data Science



1 person

Color constancy domain adaptation

Skoltech supervisor

Maxim Panov

offline



VisionLabs
MACHINES CAN SEE

1 person

Face recognition algorithms development

Skoltech supervisor

Alexander Zhrebker

hybrid




1 person

Applications of transformers in the recommended systems

Skoltech supervisor

Maxim Panov

offline




1 person

Modelling of uncertainty in graph machine learning

Skoltech supervisor

Alexander Panchenko

offline



Yevdokimov
MSUMD, Orthodontics Lab

1 person

Development of methods and algorithms for managing the processes of diagnosis and disclosure of the pathogenesis of dentofacial anomalies based on the integration and intellectual analysis of large data sets of anthropometric, radiation, functional research methods

Skoltech supervisor

Alexander Bernstein

hybrid

Energy Systems (ES)

1. Market Council
2. Siberian Generating Company
3. Tekvel



**Industrial
Immersion
Coordinator**

Ekaterina Guseva



*Students
Number*




*Group
Project*



*Interdisciplinary
Group Project*

Skoltech

Energy Systems



1 person icon

Development of a methodology for calculating the coefficients of energy emissions of greenhouse gases

Skoltech supervisor

Henni Ouerdane

online




4 person icon

Identification of heat consumption anomalies of consumers by machine learning methods

Skoltech supervisor

Federico Martin Ibanez

hybrid



Sk resident

4 person icon

Development of digital twin functions in the electric power industry

Development of an adaptive algorithm for blocking the trigger of the emergency event logger at a high noise level in the input signal

Skoltech supervisor

Vladimir Terzija

hybrid

Internet of Things & Wireless Technologies (IoTWT)

1. Alfasatcom
2. **Company name is protected by NDA*
3. Bloomtech
4. **Company name is protected by NDA*
5. Intelligent Ideas
6. Navigine
7. Neurotrend
8. Philips
9. Smart Staffing
10. Tesart
11. Vein CV



**Industrial
Immersion
Coordinator**

Maria Kolotiy



*Students
Number*




*Group
Project*



*Interdisciplinary
Group Project*

** Including 2 interdisciplinary projects with DS and SES*

Internet Of Things & Wireless Technologies



Sk resident


2

Development of a frontend application in JavaScript with Vue.js framework

Development of REST API services for backend in Python

Skoltech supervisor

Sergey Rykovanov, Andrey Somov



offline

Company name is protected by NDA

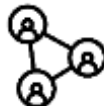
1/3*

Development of a UAV with a landing platform and testing in a physical simulator

* Interdisciplinary with SES

Skoltech supervisor

Andrey Somov



offline

B L O O M T E C H

1

Secure multi-party computation for object detection

Skoltech supervisor

Alexey Frolov

offline

Company name is protected by NDA

1

Dynamic MIMO Channel forecasting and robust precoding in the wireless systems 5G

Skoltech supervisor

Alexey Frolov

offline

Company name is protected by NDA

1

Multi-task Joint Coding: Explore Coding for 6G New Scenarios

Skoltech supervisor

Alexey Frolov

offline

Company name is protected by NDA

1






Complexity optimization for MIMO beam-domain SIC detection scheme for 5G uplink receiver

Skoltech supervisor


Andrey Ivanov

offline

Internet Of Things & Wireless Technologies

<div></div> <div>intelligent ideas</div> <div>Development of the binocular display control board</div> <div>Skoltech supervisor Andrey Somov</div> <div>2 people icon offline</div>	<div></div> <div>Navigine</div> <div>Navigation system development</div> <div>Sk resident Skoltech supervisor Gonzalo Ferrer</div> <div>1 person icon offline</div>	<div></div> <div>NEUROTREND HEUPOTPEHO</div> <div>Development of the hardware-software complex «NeuroChat»</div> <div>Sk resident Skoltech supervisor Andrzej Cichocki</div> <div>1 person icon offline</div>
<div></div> <div>PHILIPS</div> <div>Analysis of the domain adaptation problem from a frequency domain aspect</div> <div>Skoltech supervisor Dmitry Dylov</div> <div>1 person icon hybrid</div>	<div></div> <div>SmartStaffing</div> <div>Formation of a reference model of competencies using machine learning algorithms</div> <div>Sk resident Skoltech supervisor Grigoriy Kovalev</div> <div>1 person icon offline</div>	<div></div> <div>TESART</div> <div>Efficiency research of error-correcting polar codes</div> <div>Skoltech supervisor Andrey Somov</div> <div>1 person icon offline</div>

Internet Of Things & Wireless Technologies


TESART

1 person

Signal processing for full duplex data transmission systems without time and frequency division

Skoltech supervisor
Andrey Somov

offline

VEIN CV


Sk resident
Skoltech startup

1 person

Deep learning of C++ transition code

Skoltech supervisor
Andrey Somov

offline

VEIN CV

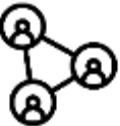
Sk resident
Skoltech startup


1/3* people

Development of a model for segmentation and analysis of medical images of vasculature

* *Interdisciplinary with DS*

Skoltech supervisor
Alexey Frolov


offline

VEIN CV

Sk resident
Skoltech startup

1 person

Automatic annotation of EEG epileptic pattern for ALICE toolbox

Skoltech supervisor
Maxim Sharaev

offline

Life Sciences (LS)

1. Biomolecule
2. Biotech Campus
3. BostonGene
4. Cloning Facility
5. Crystera
6. Genetico
7. Genomed
8. Insilico
9. International Gymnasium of the Skolkovo Innovation Center
10. M&S decisions
11. MolTech
12. Motorica
13. MRM Proteomics R
14. OilGene
15. Open Longevity
16. SberMedAI
17. SoKo
18. Unim
19. Vibrant



**Industrial
Immersion
Coordinator**

Vera Rybko



*Students
Number*




*Group
Project*




*Interdisciplinary
Group Project*








Life Sciences

<div><div></div><div>Biomolecule</div></div> <div><div>1 person</div><div>Technical analysis of publications of the biomolecule resource and optimization of font styles, pictures and links</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div>	<div><div></div><div>Biomolecule</div></div> <div><div>1 person</div><div>Thematic analysis of publications of the biomolecule resource and optimization of the sequence of presentation of the material</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div>	<div><div></div><div>Biomolecule</div></div> <div><div>1 person</div><div>Review and analysis of biomedical research articles for building a company brand on Yandex.Q</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div>
<div><div></div></div> <div><div>1 person</div><div>Purification of ultra long genomic DNA from blood samples</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>offline</div></div>	<div><div></div></div> <div><div>1 person</div><div>Dashboard development for the internal analytical system of the immunity analysis group</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>offline</div></div>	<div><div></div></div> <div><div>1 person</div><div>Implementation of scRNA-seq in precision oncology</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>offline</div></div>





Life Sciences

<div></div> <div>Designing web-application for registration of commercial kits measuring protein concentrations</div> <div><div>Sk resident</div><div>1 person icon</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>offline</div></div>	<div></div> <div>Investigation of methods for improving the classification of imaginary movements by EEG patterns</div> <div><div>Sk resident</div><div>1 person icon</div></div> <div><div>Skoltech supervisor</div><div>Natalya Podsosonnaya</div><div>offline</div></div>	<div></div> <div>CRYSTERA</div> <div>Implementation of bioinformatic approaches in defining functions of orphan proteins of human CYP4 family</div> <div><div>Sk resident</div><div>2 person icon</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div>
<div></div> <div>Tools for repeat expansion detection and for variant effect prediction in intronic and regulatory regions of genes in WES and WGS data</div> <div><div>Sk resident</div><div>2 person icon</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div>	<div></div> <div>Genomed</div> <div>Development of NGS-based test-system for Liquid Biopsy analysis</div> <div><div>3 person icon</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>offline</div></div>	<div></div> <div>Insilico Medicine</div> <div>Implementation of multi-omics approach for the search and validation of molecular drug targets in pulmonary hypertension</div> <div><div>Sk resident</div><div>1 person icon</div></div> <div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div>

Life Sciences

<div>Insilico Medicine</div> <div>Sk resident1</div> <div>Comparison of the harmonization algorithms for single-cell RNA sequencing transcriptomes using big data</div> <div>Skoltech supervisor Vera Rybko</div> <div>hybrid</div>	<div>Insilico Medicine</div> <div>Sk resident1</div> <div>Development of a classifier of genes according to the probability of a toxic effect during therapeutic exposure</div> <div>Skoltech supervisor Vera Rybko</div> <div>hybrid</div>	<div>Sk Международная гимназия</div> <div>Sk resident1</div> <div>Development of "Science and Art" program</div> <div>Skoltech supervisor Vera Rybko</div> <div>hybrid</div>
<div>M&S Modeling & Simulation Decisions</div> <div>Sk resident1</div> <div>Clinical pharmacology: investigation of different parametric time-to-event models for PFS and OS assessment in cancer</div> <div>Skoltech supervisor Vera Rybko</div> <div>hybrid</div>	<div>M&S Modeling & Simulation Decisions</div> <div>Sk resident1</div> <div>Applying generalized additive models (GAM) to analyze non-linear longitudinal data on cancer biomarkers to support decision making in oncology</div> <div>Skoltech supervisor Vera Rybko</div> <div>hybrid</div>	<div>MolTech Molecular Technologies</div> <div>Sk resident2</div> <div>Application of neural networks for optimization of drug candidates</div> <div>Skoltech supervisor Vera Rybko</div> <div> hybrid</div>

Life Sciences

<div><div></div><div><div>Sk resident</div><div>1 person</div></div></div> <div><div>Development of optical haptic interface for arm prosthetics</div><div><div>Skoltech supervisor</div><div>Natalya Podsosonnaya</div><div>offline</div></div></div>	<div><div><div>Sk resident</div><div>Skoltech startup</div></div><div>1 person</div></div> <div><div>MRM Proteomics R</div><div><div>Synthesis of proteotypic peptide standards and kit development for quantitative next-generation MS-based proteomics assays</div><div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>offline</div></div></div></div>	<div><div><div>Sk resident</div><div>Skoltech startup</div></div><div>1 person</div></div> <div><div>MRM Proteomics R</div><div><div>Construction, adaptation and visualization of the gene-disease association</div><div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div></div></div>
<div><div></div><div><div>Sk resident</div><div>Skoltech startup</div></div><div>1 person</div></div> <div><div>Search for resistance genes to sunflower broomrape</div><div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div></div>	<div><div></div><div><div>Sk resident</div><div>Skoltech startup</div></div><div>1 person</div></div> <div><div>The development of mobile systems (ring isothermal PCR) for diagnosing the resistance of sunflower plants to broomrape</div><div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div></div>	<div><div></div><div><div>1 person</div></div></div> <div><div>Molecular orbital analysis of anti-glycation agents for QSAR applications</div><div><div>Skoltech supervisor</div><div>Vera Rybko</div><div>hybrid</div></div></div>

Life Sciences



Sk resident


1 person icon

Development of the AI-algorithm for recognition of pathologies in mammary glands

Skoltech supervisor

Vera Rybko

hybrid




2 person icon

Analysis of phenotypic data of soybean varieties and search for single-nucleotide polymorphisms by economically valuable traits

Skoltech supervisor

Vera Rybko


hybrid



Sk resident

2 person icon

World biopsy market research: growth, trends, existing problems in biopsy

Skoltech supervisor

Vera Rybko


hybrid



Sk resident

1 person icon

Skoltech startup

Investigation of methods for improving the classification of imaginary movements by EEG patterns

Skoltech supervisor

Natalya Podsosonnaya

hybrid

Materials Science (MS)

1. Biomimetix
2. Core Technologies
3. Cryptochemistry
4. FlexLab
5. IPG
6. Kintech Lab
7. M-Granat (RQC Spin-off)
8. Nissan
9. Novaprint 3D
10. NPP Impulse
11. OZON
12. Rustor



**Industrial
Immersion
Coordinator**

Ekaterina Guseva



*Students
Number*




*Group
Project*









*Interdisciplinary
Group Project*

Materials Science

<div><p>Materials. Naturally</p></div> <div>Research of mechanical properties of biomaterials</div> <div><div>Sk resident</div><div>Skoltech startup</div></div> <div><div>1 person</div><div>Skoltech supervisor</div><div>Alexey Salimon</div><div>hybrid</div></div>	<div></div> <div>Investigation of crystal hypomorphism by structure prediction</div> <div><div>Sk resident</div><div>Skoltech startup</div></div> <div><div>1 person</div><div>Skoltech supervisor</div><div>Artem Oganov</div><div>hybrid</div></div>	<div></div> <div>Computer simulation of the structure of clusters formed on a substrate</div> <div><div>Sk resident</div><div>Skoltech startup</div></div> <div><div>1 person</div><div>Skoltech supervisor</div><div>Artem Oganov</div><div>hybrid</div></div>
<div><div>Sk resident</div><div>Skoltech startup</div></div> <div>Cryptochemistry</div> <div>Production of mixed oxides with a given crystallinity</div> <div><div>1 person</div><div>Skoltech supervisor</div><div>Dmitry Krasnikov</div><div>offline</div></div>	<div></div> <div>Optimization of hybrid perovskite photodetectors for pulse oximetry devices</div> <div><div>1 person</div><div>Skoltech supervisor</div><div>Dmitry Krasnikov</div><div>offline</div></div>	<div></div> <div>Theoretical and practical determination of the properties of the LiNa5Mo9O30 structure</div> <div><div>1 person</div><div>Skoltech supervisor</div><div>Artem Oganov</div><div>offline</div></div>

Materials Science

<div></div> <div>1 person</div> <div>First-principle modeling of materials for LEDs</div> <div><div>Skoltech supervisor</div><div>Sergey Levchenko</div><div>hybrid</div></div>	<div><div></div><div>M-Granat RQC Spin-off</div><div>Sk resident</div></div> <div>1 person</div> <div>Investigation of magnetic properties of colloidal structures</div> <div><div>Skoltech supervisor</div><div>Gleb Sukhorukov</div><div>hybrid</div></div>	<div></div> <div>1 person</div> <div>Development of Cost- and Energy-Efficient Methods for Recovering Lithium and Electrolyte from Waste Batteries</div> <div><div>Skoltech supervisor</div><div>Roman Kapaev</div><div>hybrid</div></div>
<div></div> <div><div>Sk resident</div><div>Skoltech startup</div></div> <div>1 person</div> <div>Determining the response of CNT-based sensors to a thermosetting resin</div> <div><div>Skoltech supervisor</div><div>Dmitry Krasnikov</div><div>hybrid</div></div>	<div></div> <div>1 person</div> <div>Research of various metal powders for 3D printing of components in manufacturing</div> <div><div>Skoltech supervisor</div><div>Marina Tepliakova</div><div>hybrid</div></div>	<div></div> <div>1 person</div> <div>Investigation of the prospects for the use of machine learning in the development of methods and techniques for the production of medicines</div> <div><div>Skoltech supervisor</div><div>Dmitry Aksenov</div><div>hybrid</div></div>

Materials Science

28

RUSTOR

Development of a hydrothermal synthesis method using microwave radiation to obtain cathode materials based on Ni-enriched NMC with a "core-shell" structure for lithium-ion batteries

Skoltech supervisor

Aleksandra Savina



hybrid

Petroleum Engineering (PE)

1. **Company name is protected by NDA*
2. Digital Petroleum
3. Gazpromneft STC
4. Gazpromneft Technological Partnerships

5. LabAdvance
6. Novosibirsk R&T Centre (NNTC)
7. Sakhalin Energy
8. South Geotherm SPE



**Industrial
Immersion
Coordinator**

Alexey Cheremisin



*Students
Number*



*Group
Project*




*Interdisciplinary
Group Project*

Petroleum Engineering

<div>1 person</div> <div>Company name is protected by NDA</div> <div>Research of membranes for gas separation</div> <div>Skoltech supervisor Evgeny Chuvilin</div> <div>hybrid</div>	<div>1 person</div> <div>Company name is protected by NDA</div> <div>Graph-based temporal process planning and scheduling for well drilling operations</div> <div>Skoltech supervisor Dmitri Koroteev</div> <div>offline</div>	<div>Skoltech resident Skoltech startup</div> <div>1 person</div> <div>Digital Petroleum</div> <div>Petroleum Data Processing and Lithofacies Prediction</div> <div>Skoltech supervisor Alexei Tchistiakov</div> <div>offline</div>
<div>Skoltech resident Skoltech startup</div> <div>1 person</div> <div>Digital Petroleum</div> <div>Efficiency analysis of reservoir flow modeling acceleration</div> <div>Skoltech supervisor Dmitri Koroteev</div> <div>offline</div>	<div>Skoltech resident Skoltech startup</div> <div>1 person</div> <div>Digital Petroleum</div> <div>Investigation of the possibilities of non-invasive acceleration of petroleum simulators</div> <div>Skoltech supervisor Dmitri Koroteev</div> <div>offline</div>	<div>GAZPROM SCIENCE & TECHNOLOGY CENTER</div> <div>1 person</div> <div>Screening of Surfactant Compositions Using Microfluidic Technology</div> <div>Skoltech supervisor Alexey Cheremisin</div> <div>hybrid</div>

Petroleum Engineering



1 person

Review and evaluation of the effectiveness of combined EOR with CO2

Skoltech supervisor

Alexey Cheremisin

offline



1 person

Optimization of the technology of thermochemical treatment based on data on the kinetics of transformation of organic matter in rocks of the Bazhenov formation during the injection of supercritical water

Skoltech supervisor

Mikhail Spasennykh

offline



1 person

Interpretation of CPP 3D data for the purpose of studying the structure of hydrocarbon deposits in unconventional reservoirs

Skoltech supervisor

Alexei Tchistiakov

offline



Skoltech resident

Skoltech startup


1 person

The studies of microfluidic technology for the rapid screening of enhanced oil recovery methods

Skoltech supervisor

Alexey Cheremisin

offline



Skoltech resident

Skoltech startup


1 person

Selection of hydraulic fracturing fluid using microfluidic technology

Skoltech supervisor

Alexey Cheremisin

offline



Skoltech resident

Skoltech startup

1 person


Microfluidic studies of salinity water injection for enhanced oil recovery


Skoltech supervisor

Alexei Tchistiakov

offline

Petroleum Engineering



1 

Development of numerical methods for predicting hydrocarbon production based on historical data and proxy models of reservoir fluid movement

Skoltech supervisor

Alexander Cheremisin

offline




1 

Well data aggregation and preparation of the well history for offshore oil platform "Molikpaq" PA-A


Skoltech supervisor

Dmitriy Potapenko

offline



South Geotherm
SPE


4 

Collection of data related to the emission and absorption of greenhouse gases

Development of a system for collecting and storing data retrieved from the carbon polygon

Skoltech supervisor

Alexander Bernstein


offline

Photonics and Quantum Materials (PQM)

1. **Company name is protected by NDA*
2. Bioimaging
3. Cryptochemistry
4. FlexLab
5. IPG
6. Novaprint 3D
7. Russian Quantum Centre (RQC)
8. PhisTech
9. Perm Research and Production Instrument-Making Company (PNPPK)
10. Qrate
11. TetraQuant
12. Tirphotonics
13. Troitsk Engineering Center



**Industrial
Immersion
Coordinator**

Dmitry Krasnikov



*Students
Number*






*Group
Project*









*Interdisciplinary
Group Project*







Photonics and Quantum Materials

<div>1 </div> <div>Company name is protected by NDA</div> <div>Testing and verification of fiber optic measurements interpretation algorithms</div> <div>Skoltech supervisor Dmitry Krasnikov</div> <div>hybrid</div>	<div>1 </div> <div>BIOIMAGING</div> <div>Optimization of methods of multispectral imaging and computer vision for the analysis of pathological skin areas</div> <div>Skoltech supervisor Dmitry Gorin</div> <div>offline</div>	<div><div>Sk resident</div><div>Skoltech startup</div></div> <div>1 </div> <div>Cryptochemistry</div> <div>Recognition and processing of experimental analysis of chemical code</div> <div>Skoltech supervisor Dmitry Krasnikov</div> <div>offline</div>
<div></div> <div>1 </div> <div>Mixed halide perovskites as Energy harvesters for Indoor photovoltaics and their optimization</div> <div>Skoltech supervisor Dmitry Krasnikov</div> <div>offline</div>	<div></div> <div>1 </div> <div>Theoretical and practical determination of the properties of the BPO4 structure</div> <div>Skoltech supervisor Artem Oganov</div> <div>offline</div>	<div></div> <div>1 </div> <div>Prototyping of a new laser scheme with ultrashort UPL pulses</div> <div>Skoltech supervisor Arkady Shipulin</div> <div>offline</div>

Photonics and Quantum Materials

<div></div> <div>Разработка системы детектирования наличия волоконного инструмента приборов FiberLase U</div> <div><div>Skoltech supervisor</div><div>Arkady Shipulin</div></div> <div>1 person icon</div> <div>offline</div>	<div></div> <div>Coupling experiment and simulation for optimization of acousto-optic devices within the AOM-1030-10-PM project</div> <div><div>Skoltech supervisor</div><div>Arkady Shipulin</div></div> <div>1 person icon</div> <div>offline</div>	<div><div>Sk resident</div><div>Skoltech startup</div></div> <div>Investigation of the features of the formation of "microplastics" from composite materials used for 3D printing</div> <div><div>Skoltech supervisor</div><div>Dmitry Krasnikov</div></div> <div>1 person icon</div> <div>hybrid</div>
<div><div>Sk resident</div><div>Skoltech startup</div></div> <div>Evaluation of the reproducibility of the characteristics of multi-sensor chips in the analysis of the smell of food-grade plastic</div> <div><div>Skoltech supervisor</div><div>Fedor Fedorov</div></div> <div>1 person icon</div> <div>hybrid</div>	<div></div> <div>Investigation of diode-laser self-injection locking to the eigenmode of integrated microring resonator</div> <div><div>Skoltech supervisor</div><div>Dmitry Krasnikov</div></div> <div>1 person icon</div> <div>offline</div>	<div><div>Sk resident</div><div>Skoltech startup</div></div> <div>Development of components for a tunable laser and modulator on InP chip</div> <div><div>Skoltech supervisor</div><div>Arkady Shipulin</div></div> <div>1 person icon</div> <div>offline</div>

Photonics and Quantum Materials

<div><p>PERM SCIENTIFIC-INDUSTRIAL INSTRUMENT MAKING COMPANY</p></div> <div>Improvement of digital models for fiber lenses to optimize the input of optical radiation from semiconductor lasers</div> <div><div>Sk resident</div><div>1 person</div></div> <div><div>Skoltech supervisor</div><div>Dmitry Krasnikov</div><div>hybrid</div></div>	<div></div> <div>Proofreading and adaptation of a set of laboratory works for the scientific and educational complex of quantum key distribution</div> <div><div>Sk resident</div><div>1 person</div></div> <div><div>Skoltech supervisor</div><div>Yuriy Gladush</div><div>offline</div></div>	<div></div> <div>Development of immunomagnetic particles based on nano- and submicron particles for specific isolation of biomarkers</div> <div><div>Sk resident</div><div>Skoltech startup</div><div>2 people</div></div> <div><div>Skoltech supervisor</div><div>Dmitry Gorin</div><div>offline</div></div>
<div></div> <div>Development of technology for the formation of core-shell structures containing quantum dots</div> <div><div>Sk resident</div><div>Skoltech startup</div><div>1 person</div></div> <div><div>Skoltech supervisor</div><div>Dmitry Gorin</div><div>offline</div></div>	<div></div> <div>Optimization of edge coupling of light into photonic integrated circuits with carbon nanotube films</div> <div><div>Sk resident</div><div>1 person</div></div> <div><div>Skoltech supervisor</div><div>Yuriy Gladush</div><div>offline</div></div>	<div></div> <div>Quantum detectors based on two-dimensional van der Waals structures and their optimization</div> <div><div>Sk resident</div><div>1 person</div></div> <div><div>Skoltech supervisor</div><div>Dmitry Krasnikov</div><div>offline</div></div>

Photonics and Quantum Materials



Sk resident

1

Tuning photonic Integrated circuits with microfluidic channel

Skoltech supervisor

Vasiliy Chernyshev

offline



Sk resident


1

Development of broadband transitions for terahertz waveguides of various configurations

Skoltech supervisor

Dmitry Krasnikov

offline



1

Study of the features for the operation of new models of plasma sources for broadband radiation

Skoltech supervisor

Dmitry Krasnikov

offline

Space and Engineering Systems (SES)

1. **Company name is protected by NDA*
2. Integrant
3. Intelligent Ideas
4. Knowledge Genesis
5. Kosima
6. KosmoLab
7. Matrix Wave
8. Navigine
9. Plan-S Satellite and Space Technologies
10. Samsung
11. Sberbank
12. Tsuru Robotics
13. Space Technology and Services Centre
14. Yandex



**Industrial
Immersion
Coordinator**

Antonina Gromyko



*Students
Number*










*Group
Project*









*Interdisciplinary
Group Project*

** Including 1 interdisciplinary project with IoTWT*

Space and Engineering Systems

<div>2/3* </div> <div>Company name is protected by a NDA</div> <div>Development of a UAV with a landing platform and testing in a physical simulator</div> <div>Developing methods for planning the group UAV flight for autonomous seismic exploration</div> <div><i>* Interdisciplinary with IoTWT</i></div> <div>Skoltech supervisor Dmitry Tsetserukou</div> <div> hybrid</div>	<div>2 </div> <div></div> <div>Research and development of algorithms and software components of driverless car control system</div> <div>Skoltech supervisor Dmitry Tsetserukou</div> <div> offline</div>	<div>1 </div> <div></div> <div>Enhancing personnel development platform in VR</div> <div>Skoltech supervisor Dmitry Tsetserukou</div> <div>offline</div>
<div>Sk resident </div> <div></div> <div>Improvement of digital models for fiber lenses to optimize the input of optical radiation from semiconductor lasers</div> <div>Skoltech supervisor Anton Ivanov</div> <div>hybrid</div>	<div>Sk resident </div> <div></div> <div>Development of the prototype for electromyograph</div> <div>Skoltech supervisor Mikhail Lebedev</div> <div>offline</div>	<div>Sk resident </div> <div></div> <div>Development of conceptual framework for cubesat deployer</div> <div>Skoltech supervisor Anton Ivanov</div> <div> hybrid</div>

Space and Engineering Systems

<div><div></div><div><div>Sk resident</div><div>1 person</div></div></div> <div><div>Software defined W-band Satellite constellations</div><div>Skoltech supervisor Anton Ivanov</div><div>hybrid</div></div>	<div><div><div>Navigine</div></div><div><div>Sk resident</div><div>1 person</div></div></div> <div><div>Development of Automated robot navigation system in urban environments</div><div>Skoltech supervisor Gonzalo Ferrer</div><div>offline</div></div>	<div><div></div><div><div>1 person</div></div></div> <div><div>Connecta IoT Constellation</div><div>Skoltech supervisor Anton Ivanov</div><div>offline</div></div>
<div><div></div><div><div>1 person</div></div></div> <div><div>Study and Implementation of RGBD key point learning</div><div>Skoltech supervisor Gonzalo Ferrer</div><div>hybrid</div></div>	<div><div><div>SBERBANK</div></div><div><div>1 person</div></div></div> <div><div>Trajectory planning system for a mobile sidewalk robot with wheel slippage</div><div>Skoltech supervisor Lev Rapoport</div><div>offline</div></div>	<div><div><div>Tsuru Robotics</div></div><div><div>Sk resident</div><div>Skoltech startup</div><div>1 person</div></div></div> <div><div>Python implementation of supplemental tools integrated into a Blender Add-on</div><div>Skoltech supervisor Dmitry Tsetserukou</div><div>offline</div></div>

Space and Engineering Systems

<div><div><div><div><div>Tsuru</div><div>Robotics</div></div></div><div><div>Sk resident</div><div>Skoltech startup</div></div></div><div><div>Modernization of graffiti-drone navigation and spraying systems</div><div><div>Skoltech supervisor</div><div>Dmitry Tsetserukou</div></div><div><div>offline</div></div></div></div>	<div><div><div><div><div>Space</div><div>Technology and</div><div>Services Centre</div></div></div><div><div>1</div><div>person icon</div></div></div><div><div>Development of algorithms for assessing tree amount based on laser scanning and aerial photography data</div><div><div>Skoltech supervisor</div><div>Anton Ivanov</div></div><div><div>hybrid</div></div></div></div>	<div><div><div><div><div>3</div><div>person icon</div></div></div><div><div>Development of computer vision for warehouse robot</div><div>Development of load gripper and movement system for mobile robot</div><div>Study of algorithms of warehouse robotic swarm</div><div><div>Skoltech supervisor</div><div>Dmitry Tsetserukou</div></div><div><div><div>offline</div></div></div></div></div></div>
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