KAZAN FEDERAL UNIVERSITY
HIGHER SCHOOL FOR INFORMATION SYSTEMS AND INFORMATION TECHNOLOGIES

MASTER'S PROGRAM IN SOFTWARE ENGINEERING

ITIS

- 2010
- *Green-field (but with basis)*
- ***Premium Class IT-Education***

  ***Mission*:** training elite specialists for IT-companies of Tatarstan and Russia

- *Platform of interaction:*

  University (fundamental basis, science) + **Industry** (companies, engineers as teachers, labs of companies instead of departments)

- *Grant System*

Master's Program

Opened in **2014**

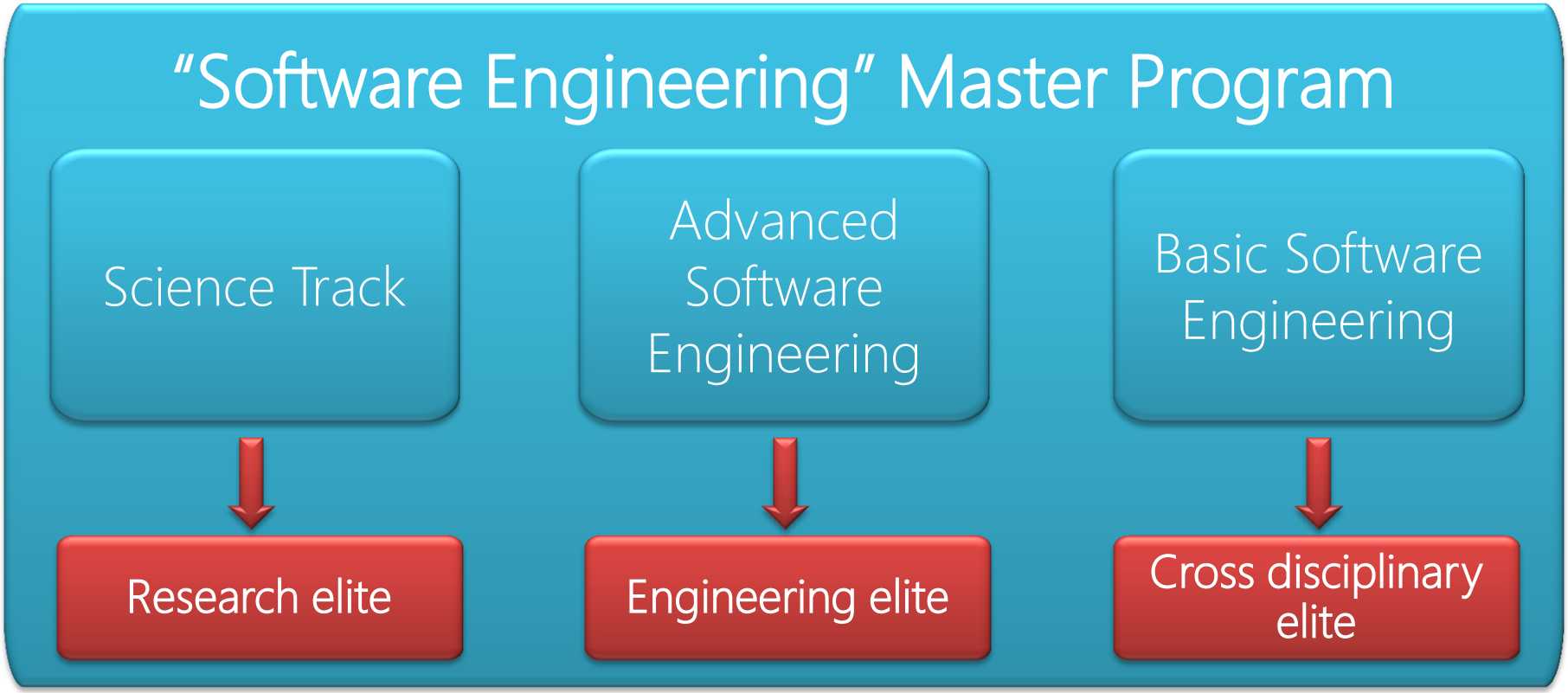
Original mission: Prepare specialists of advanced level of competencies in Software Engineering.

Features:

- Creativity,
- Practice-oriented,
- Following global trends and challenges
- Flexible, individual approach

Geography:

Tracks of Education



Science Track

- **In English**

- **Education Plan:** diving into core scientific basics of Computer Science and Software Engineering and multidisciplinary courses:
    - Information System Analysis & Design Techniques,
    - Machine Learning, Computational Statistics,
    - Service oriented and Cloud computing,
    - Applied Natural Language Processing,
    - Machine Consciousness,
    - Big Data Processing,
    - Affective computing,
    - Computational Neurobiology
    - *etc.*

- **Requirements**: Efficient Research Activity

Advanced Software Engineering Track

- **In Russian**
- **“Level-up for IT-bachelors”**
- **Education Subtracks**: system architecture, project management, data processing and analysis.
- **Courses:**
  - ✓ Project Management in Software Development,
  - ✓ Software Engineering Methods and Tools,
  - ✓ Verification and Testing Methods,
  - ✓ Requirement Analysis Software Development,
  - ✓ Configuration Management Infrastructure Management
  - ✓ *etc.*

Basic Software Engineering Track

- **In Russian**
- **Software Engineering Competencies for non-engineering bachelors**
  - *IT – new literacy!*
  - *Cross-disciplinary Projects (f.e. Archeology, Economics)*
- **Courses:**
  - Programming Basics, Application Analysis and Design, Databases, Scripting, web-development etc

Key Persons

Airat Khasianov
Director of ITIS,
Dr.Rer.Nat

Andrey Krekhov
CBDO of
Fujitsu GDC Russia,
MBA

Valery Soloviev
Research supervisor,
Professor, Doctor of
Sciences

Salvatore Distefano
Head of Social & Urban
Computing Lab,
PhD

Max Talanov
Head of Department of
Intellectual Robotics,
PhD

Petr Novikov
Head of Intellectual
Search Technologies,
PhD

Vlada Kugurakova
Head of Digital Media Lab

Ruslan Gaisin
Head of Intellectual
Traffic Technologies Lab

Mikhail Abramskiy
Head of Educational
Program

Irina Shakhova
Head of iOS Lab

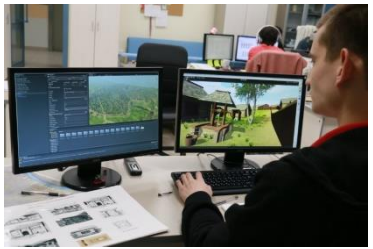
Ilseyar Alimova
Head of Samsung
Android Lab

Master Student
12th Player of
Our Team

Activity of Master Student

1. Education

- *Lections* – translation of experience, case studies, introduction to ontology of Software Engineering
- *Practice* – from development to training and master-classes, discussions, presentations, projects, PBL etc.

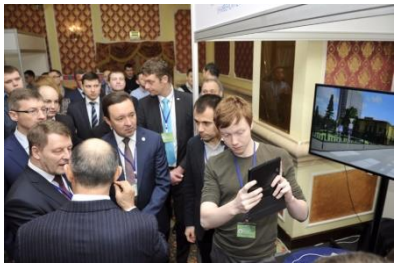


2. Research and Development

- Departments and Labs of ITIS (including web and mobile development, high productive computations etc.)

3. Internship

- Labs
- Partner companies
- *"Sandbox" – project management experimental platform*



Strategic Academic Units of KFU

TRANSLATIONAL 7P MEDICINE

New solutions in human health care through the Personalized Translational Medicine on the basis Transdisciplinary Biomedical Education and interdisciplinary research.

- UNIVERSITY CLINIC
- PILOT PRODUCTION ("FARMA")

ECO OIL

Generation, concentration and global distribution of competences in the field of energy-saving, eco-friendly, effective (EEE) technologies of exploration, production and refining.

- OIL TESTING PLATFORMS
- CATALYSTS FACTORY

ASTROCHALLENGE

Advanced education based on modern research and development in the field of astronomy, astrophysics, radiophysics, geodesy, management of territorial development.

- GROUND MONITORING SYSTEMS
- SRG PROJECT

TEACHER XXI

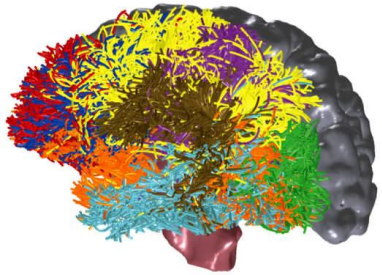
Research and development in education technologies and teacher education.

- 2 LYCEUMS, "CHILDREN'S UNIVERSITY"
- RETRAINING CENTERS

Examples of projects

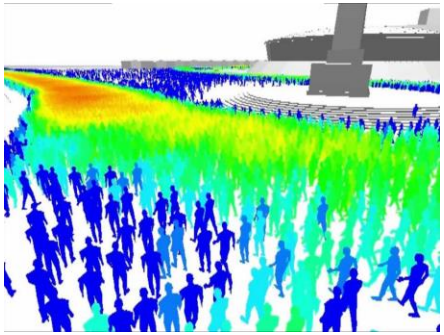
NeuCogAr

- Neurobiological Cognitive Architecture
- Numeric Emotional Model
- RoboDream
- Depression Simulation (with Lanzhou)



BioDynamo

- growing mammal brain simulation



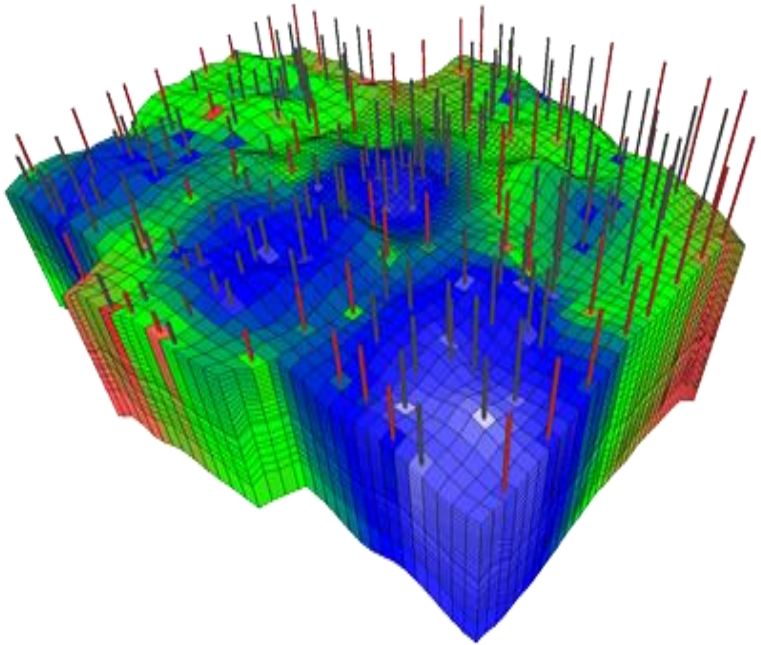
Emotional City

- Interactive dynamical emotional profile of city
- Prognosis of the reaction to administrative actions

Examples of projects

Oil and Gas Refining

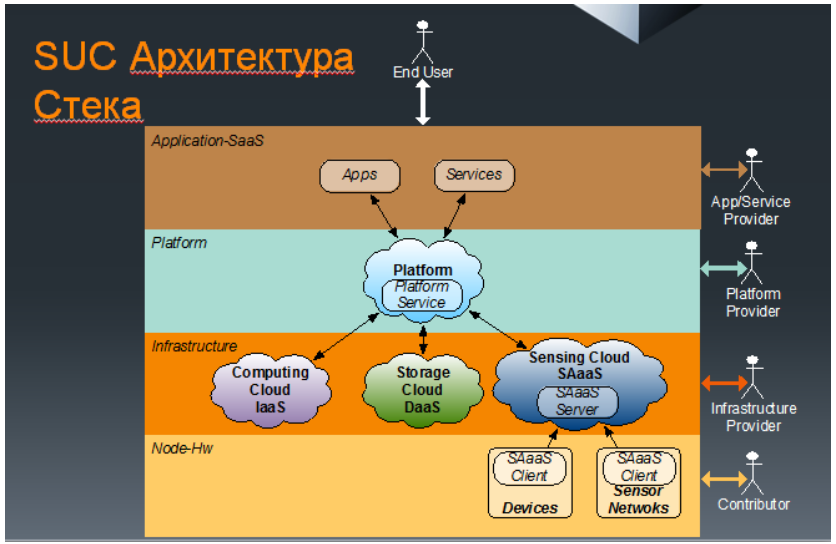
- High Productive Computations with heterogenic architecture in algorithms of Seismic tomography data processing



High Productive Rendering

- Oil Render
- Historical Reconstruction

Examples of projects

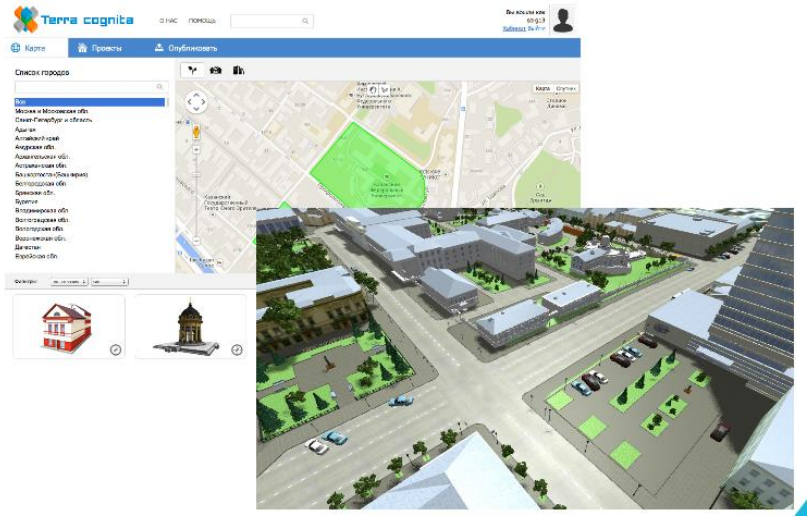


Social oriented computer technologies for city environment

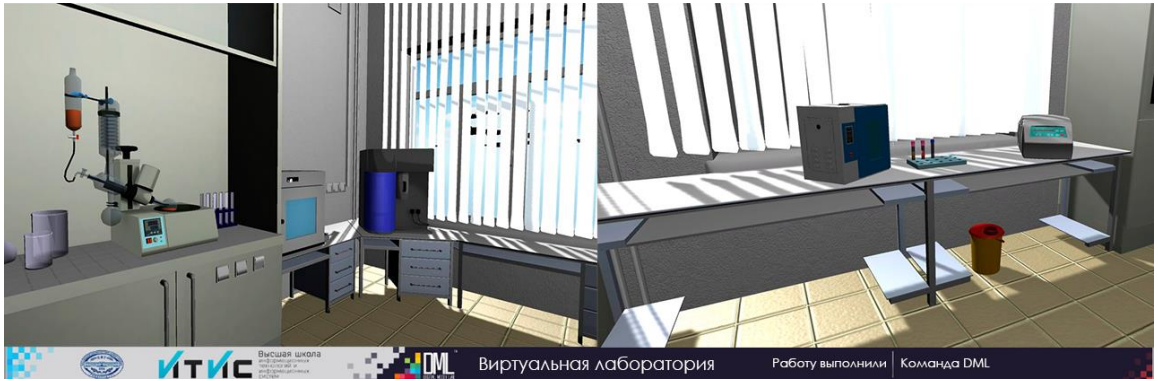
IoT, Smart Cities, Geo Computations

Terra Cognita

Architecture Modelling, Traffic Analysis, City Infrastructure Management



Examples of projects



Virtual Lab

Educating student of Biology and Medicine Majors

(with Institute of Fundamental Medicine and Biology)

Bulgar XIV

Virtual Game-Museum

(with Institute of Oriental Studies and International Relations)

Join us!

- Tuition fee – **138 996 rub** per year.

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