



# Institute of Geology and Petroleum Technologies at Kazan Federal University

#35 in the world  
QS Subject Rankings in Petroleum Engineering

## Tatarstan and its capital city Kazan



Kazan Kremlin



Peter and Paul's Cathedral, Kazan



Marriage Center, Kazan



Kazan Federal University



Romashkino Oilfield



White Mosque, Bolgar

*Photos from Visit-Tatarstan.com and KPFIU.ru*



# History of Kazan University - Milestones

1804 – Imperial Kazan University established by Emperor Alexander I

1821 – Nikolay Lobachevsky offers first outlines of non-Euclidean geometry (later served as rector 1827 - 1846)

1837 – first ever Department of Chinese Language in Russia

1844 – ruthenium (44<sup>th</sup> chemical element) discovered by Professor Karl Claus

Since 1858 – Alexander Butlerov and his students develop the theory of organic compounds

1885 – first ever laboratory of psychophysiology in Russia established by Vladimir Bekhterev

1887 – Vladimir Ulyanov (Lenin) enrolls in Kazan University but is expelled after a student protest

1901 – Engelhardt Astronomical Observatory opened in a suburb of Kazan

1922 – Kazan Agricultural Institute splits from Kazan University

1925 – the University assumes the title of Ulyanov-Lenin Kazan State University

1930-1932 – three new institutes – in chemical technology, aviation, and medicine – split from Kazan University

1944 – Yevgeny Zavoisky discovers electron paramagnetic resonance

1945 – Kazan Center of the Russian Academy of Science opens doors

1973 – 1978 – major campus expansion and renovation in Kazan city center

1996 – central campus in Kazan inducted into the Russian Registry of the Most Valuable Objects of Cultural Heritage

2010-2013 – Kazan Federal University established after a series of mergers with local institutions

2021 – Kazan University joins Priority 2030, a federal academic excellence initiative



401 in the world  
5 in Russia

## Natural Sciences

Medicine and biology  
Environmental science  
Geology and petroleum  
technologies  
Chemistry

## Territorial campuses

Yelabuga, Russia  
Naberezhnye Chelny, Russia  
Jizzakh, Uzbekistan  
Cairo, Egypt

## Physics, Mathematics, IT

Physics  
Astronomy  
Mathematics and mechanics  
Computer science  
Engineering (heat, electrical,  
automotive, civil, mechanical,  
biotechnical, cryogenics,  
materials science)

## School and Pre-school Education

IT Lyceum  
Lobachevsky Lyceum  
University School of Yelabuga  
We are Together Kindergarten

## Social Sciences and Humanities

International relations  
Law  
Philology and linguistics – over 20  
languages  
Psychology  
Philosophy and theology  
Sociology  
Political science  
Design and environmental arts  
Economics and finance  
Management and public service  
Teacher education



## University at a glance

**52,000 students**

**12,000 international students  
from 100+ countries**

**250+ partner institutions from  
37 countries**

**Higher education and PhD  
Secondary education  
Pre-school education  
University clinic**

**9,500+ employees  
Including 4,000 educators and researchers**

**350+ undergraduate programs  
250+ graduate programs  
90+ doctoral programs  
Advanced training programs**

**910 thousand m<sup>2</sup> of infrastructure  
120+ laboratories  
670+ buildings and structures**



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**priority2030^**  
leaders are made, not born

## Priority 2030 – Strategic projects

Priority 2030 is a Russian strategic academic leadership program launched in 2021. There are two tracks in the project – the Territorial / Industrial Leadership track and the Research Leadership track. KFU is part of the Territorial / Industrial leadership group. Our University listed five strategic projects for the program:

**SP1 Genomic and Post-Genomic Technology**

**SP2 Russian Energy Transition: Balancing Natural Potential and Global Trends**

**SP3 Digital Studies of Materials**

**SP4 Meta-Platform Solutions for IT, AI and Cyber-Physical Systems**

**SP5 Evidence-Based Platform Solutions for Human Potential**



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## Cultural, social and sports infrastructure



Over 14,000 students are hosted at various KFU dorms, including the Universiade Village – one of the largest dorm campuses in Russia



**11**  
sports  
venues

**12** museums (humanities, technology, and natural sciences)

**1 mln** depository items

**10** large-scale exhibition projects per year

**35 thousand** visitors per year





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# Geology and Petroleum Technologies at Kazan Federal University – three pillars

Institute of Geology and Petroleum Technologies  
(education and research)

World-Class Research Center for Liquid Hydrocarbons  
(research)

Center for Advanced Training, Quality Management and Marketing  
(advanced professional training)





# Institute of Geology and Petroleum Technologies

## OUR INSTITUTE

World # 29  
QS World University Rankings by  
Subject 2024: Engineering -  
Petroleum

World-class  
laboratories

Students actively  
partake in our  
research



Over 1,200 students

Cooperation with local  
and overseas  
universities

Employment opportunities in industry-  
leading companies



Vice-Rector for Earth Sciences

**Danis Nurgaliev**



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# Institute of Geology and Petroleum Technologies

## OUR EDUCATIONAL PROGRAMS

### Bachelor's programs (4 years)

-  Geology and development of mineral deposits
-  Geophysics
-  General geology
-  Engineering geology and hydrogeology
-  Petroleum engineering
-  Geography
-  Cartography and GIS
-  Teacher education (geography and ecology) – *5 years*






### PhD programs (4 years)

-  Oil chemistry
-  Paleontology and stratigraphy
-  Mineralogy and crystallography; geochemistry and geochemical methods of mineral exploration
-  Lithology

### Master's programs (2 years)

-  Contemporary geophysical technologies of hydrocarbon prospecting and exploration
-  Engineering geology and hydrogeology of urban territories
-  Geology of mineral deposits
-  Geology and geochemistry of oil and gas
-  Digital technology and modeling methods in oil and gas geology
-  Stratigraphy of oil and gas basins
-  Complex data analysis in geosciences (English program)
-  Petroleum engineering (English program)
-  Development of hard-to-recover and unconventional hydrocarbon fields
-  Integrated modeling of deposits
-  Technology of oil, gas and natural bitumen
-  Economic geography and spatial development of territories
-  GIS and space technology in economics and management
-  Teacher education (geography and ecology)

### PhD programs (4 years)

-  Hydrogeology
-  Geophysics
-  Geology, exploration, prospecting and development of oil and gas deposits
-  Development of oil and gas deposits
-  Petroleum engineering (English program)

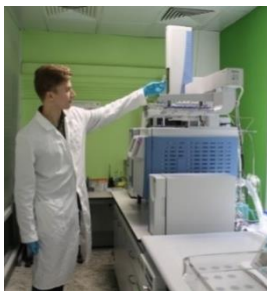


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# Institute of Geology and Petroleum Technologies

## SOME OF OUR LABORATORIES

### Laboratory of Geochemistry, Isotope and Element Analysis



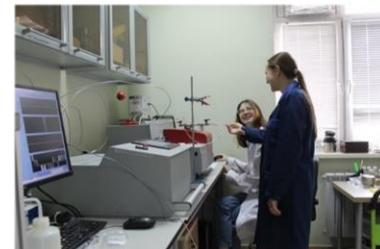
### Laboratory of Enhanced Oil Recovery



### Laboratory of X-ray Tomography



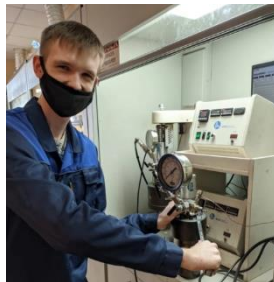
### In-Situ Combustion Laboratory



# Institute of Geology and Petroleum Technologies

## SOME OF OUR LABORATORIES

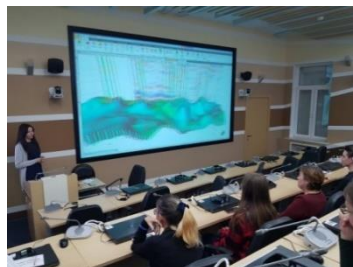
### Laboratory of Hydrate Technologies for the Utilization and Storage of Greenhouse Gases



### Electron Microscopy Laboratory



### 3D GEO Center

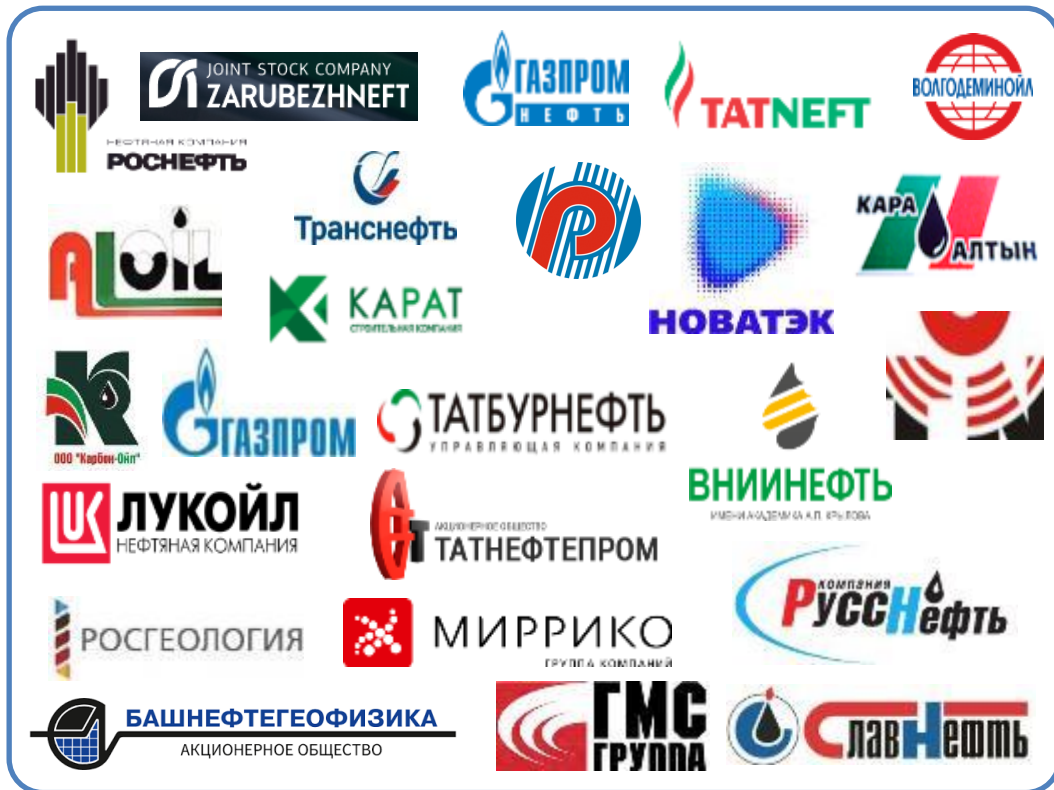


### Laboratory of Petrophysical Methods of Geological Material Research



# International cooperation

## Russian companies



## International companies





# World-Class Research Center for Liquid Hydrocarbons

## WORLD-CLASS RESEARCH CENTER EFFICIENT DEVELOPMENT OF THE GLOBAL LIQUID HYDROCARBON RESERVES (INTER-UNIVERSITY CONSORTIUM)

The Center was established in 2020 to advance research in hydrocarbon deposit exploration, comprehensive deposit monitoring, eco-friendly and efficient methods of production on heavy and complex reservoirs

Among the Center's priorities are:

Fundamental research

New production paradigms

Exploration of new reserves

Sharing of best practices



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**Kazan Federal**  
UNIVERSITY

*The list of partners and funding are  
expected to be confirmed in 2025*



# World-Class Research Center for Liquid Hydrocarbons

## RESEARCH PRIORITIES

Satellite imaging

Heat flows

Carbon isotope record

Sedimentation basins

Evaluation of reserves

Geothermochronology

Air, water, and ground

prospecting and exploration

Drone surveillance

Big data and AI in

geological modeling

„Pseudo“-core samples

Microfluid research

Exploration on depleted

reservoirs

Eco-friendly and cost-

effective drilling

technologies

Utilization of associated  
petroleum gas for enhanced  
oil recovery

Oil displacement  
mechanisms

Enhanced oil recovery  
(ionized water, surfactants,  
polymers, gels)

Catalysts for viscous oils

Express analysis of  
composition of oil and oil  
products



# Center for Advanced Training, Quality Management and Marketing

Professional training in:

- Interpretation and translation in the petroleum industry
- Geology and geophysics (Russian and English courses)
- Oilfield development, metrology and geodesy
- Economics, management and finance in the petroleum industry



Uniting our capabilities  
for everyone's success!

CdoGEO



## Our partners



Schlumberger



РДТЭК



ҚазМұнайГаз  
NATIONAL COMPANY ҰЛТТЫҚ КОМПАНИЯСЫ

CdoGEO implements professional retraining programs, advanced training courses, conducts webinars and individual internships

- **Courses are implemented in any of the requested format:**
  - ✓ Full-time
  - ✓ Part-time
  - ✓ On-site on geological objects, at enterprises, in laboratories



**We integrate everybody's possibilities for each one's success!**

**[cdogeo.kpfu.ru/centre](http://cdogeo.kpfu.ru/centre)**

- 16+ professional retraining programs
- 110+ professional development programs
- 100+ distance learning courses
- 1,000+ students per year
- 170+ teachers and experts

## Our partners and customers

PJSC NK Rosneft

PAO Tatneft

PJSC Gazprom

PJSC Gazpromneft

PJSC LUKOIL

JSC "Ritek"

OJSC "Surgutneftegas"

LLC "TNG-Group"

JSC "Bashneftegeofizika"

PJSC "Geotech holding"

MH Industry (Kazakhstan)

Burgylau LLP (Kazakhstan)

Unión Cuba-Petróleo (Cuba)

Southern Oil Company (Republic of Iraq)

Roxar Services AS

All-Russian Research Institute of Flow

Measurement

Schlumberger

SPF Paker LLC

Mirrco Group of Companies

CMG (Canada)

Trimble (US)

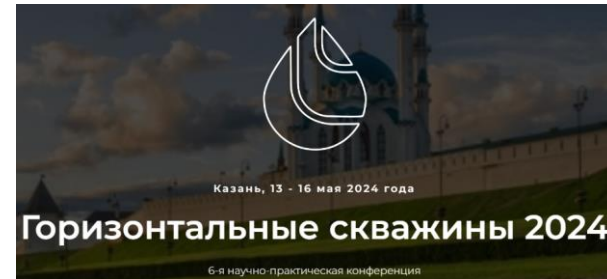
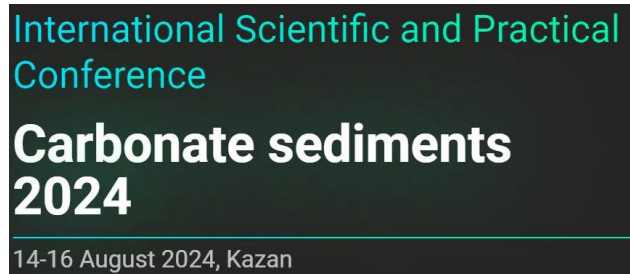
IFP (France)

HONG KONG UNITE CREATION

INTERNATIONAL CO. LIMITED (China)



## Forums and events



A number of large-scale events are held every year





# Institute of Geology and Petroleum Technologies

## Contacts

### Institute of Geology and Petroleum Technologies

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### Institute's websites

<https://en.geo.kpfu.ru>

<https://cn.geo.kpfu.ru>

### University's websites

<https://eng.kpfu.ru>

<https://admissions.kpfu.ru>

Wechat



Telegram



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