



RUDN
university



ACADEMY
OF ENGINEERING



OIL AND GAS ENGINEERING

MASTER'S PROGRAMME DEGREE



PROGRAM ADVANTAGES

- ✔ Classes are held in the English language, foreign students do not have to study at the preparatory faculty, and Russian students receive professional education, improving their language level.
- ✔ Contracts with the Novomet Group of Companies, TRIOL Corporation and Rustmash LLC, Tatneft PJSC, Russneft PJSC, Zarubezhneft PJSC and other oil and gas and oilfield service companies open up opportunities for students to gain competencies in the implementation of a wide range of real research and production projects during industrial and undergraduate practice.
- ✔ The possibility to construct individual educational trajectory by means of up to one quarter of specialized courses selection.
- ✔ During the training lectures and master classes are held by invited Russian and foreign experts in the oil and gas sector to develop and implement technologies for operating low-producing wells and water-gas stimulation to increase oil recovery using associated petroleum gas.
- ✔ An important feature of the training process is the acquisition of teamwork skills in typical operating conditions of oil and gas wells in difficult conditions, the collection and transport of oil and gas, participation in real team projects during internships and internships at leading oil and gas and service companies.
- ✔ Highly paid creative work in leading oil and gas, oilfield services and research in Russian and worldwide companies, career opportunities and active participation in innovative projects, as well as continuing education in graduate and PhD programs with the defense of thesis.



STUDYING PROCESS

120 credits.

Lectures, practical exercises and independent work, several types of practice.



TECHNOLOGY AND TECHNIQUE OF WATER-GAS STIMULATION

- General information about the water-gas effect on the oil reservoir.
- Inkjet apparatus as a part of pump-ejector systems for water-gas treatment.
- The use of pumping and ejector systems for oil production.



METHODS OF INCREASING THE RESOURCE OF ESP

- General information about submersible pumping equipment.
- Assessment of the influence of the main technological characteristics of producing wells on the ESP resource.
- Methods of increasing the service life of ESP.



INSTALLATIONS OF SUBMERSIBLE VANE PUMPS FOR OIL PRODUCTION

- General information about submersible pumping equipment.
- The effect of free gas on the performance of submersible vane pumps.
- Methods for improving operation efficiency of the rotary pump for Oil.



SIMULTANEOUS AND SEPARATE WELL OPERATION

- Installation of equipment for simultaneous separate injection and production from a multilayer reservoir.
- Organization of work for simultaneous and separate well operation



SYSTEMS FOR MAINTAINING RESERVOIR PRESSURE USING MULTI-STAGE VANE PUMPS

- General information about submersible pumping equipment.
- Existing reservoir pressure maintenance systems.



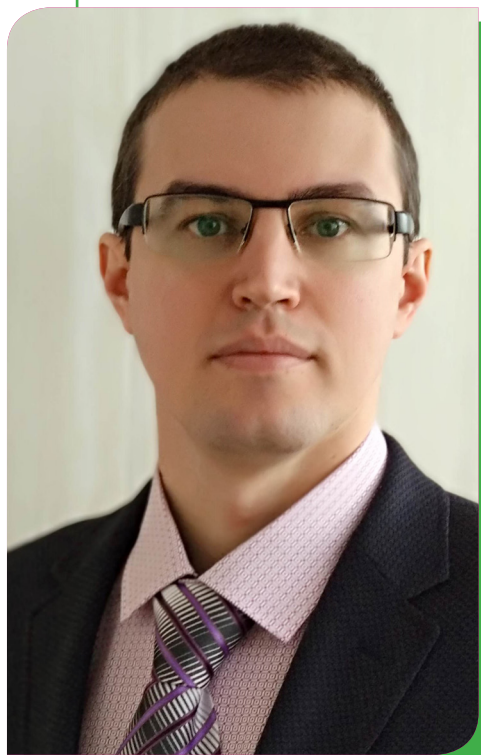
INTELLECTUALIZATION OF OIL PRODUCTION

- Intelligent Well Overview.
- Systems of intellectual automation in technological operations for oil and gas production.
- Examples of Intellectual Technology.



HEAD OF THE PROGRAMME

VLADIMIR MIKHAILOVICH KAPUSTIN



Doctor of technical Sciences, Professor, honored scientist of the Russian Federation, two-time winner winner of the Russian Government prize in science and technology, winner of the academician I.M. Gubkin prize, two-time winner of the N.K. Baibakov public prize, winner of the A.N. Kosygin prize of the Russian Union of commodity producers, honorary worker of higher professional education of the Russian Federation, honorary Petrochemist, honorary worker of the fuel and energy sector.

A member of two dissertation councils, a member of the editorial boards of several scientific journals, member of the Presidium of the Russian National Committee of World Petroleum Council, member of the Presidium of the Association of refiners and Petro chemists of Russia, member of the interdepartmental expert Council on the development of chemical and petrochemical industry under the Ministry of industry and trade and the Ministry of energy of Russia, member of the STC for oil and gas equipment in the Ministry of industry and trade, Academy of natural Sciences.

Topic of the doctoral dissertation: “Regulation of phase transitions in catalytic processes of raw material processing”.

FIELD OF SCIENTIFIC INTERESTS:

a prominent scientist in the field of chemistry of oil disperse systems. The main provisions of the technology of controlled phase transitions in oil refining processes are reflected in the textbook “technology of oil refining in 4 volumes”, for which Kapustin V.M. and co-authors received the Russian Government Award in the field of education in 2018.

As a result of research, the Professor published more than 375 scientific papers, including 7 monographs, 14 textbooks and manuals, 86 author’s certificates and patents. He prepared 21 candidates of science, was a scientific consultant for 2 doctoral dissertations.