

Scientific works of the Department of Transport equipment and logistic systems

Department of Transport equipment and logistic systems

Scientific work and innovative projects of the Department of Transport equipment and logistic systems

The main results of the scientific work performed at the department during the academic year and their implementation in the educational process and training of scientific and pedagogical personnel:

1.1 Completed scientific works of initiative research

Topic name: Development of a service system for technical maintenance and repair of dump trucks

Scientific supervisor: Kabikenov S.Zh., Candidate of Technical Sciences, Associate Professor, Head of the TELS Department

Main results:

- the location of the centers for maintenance and repair of dump trucks was determined.

Name of the topic: "Development of a methodology for operational planning of the volume of mining dump trucks"

Scientific supervisor: Zharkenov N.B., PhD, Acting Associate professor of the Department of TELS

Main results:

A methodology has been developed for generating the benefits of the owner of heavy-duty dump trucks from improving the efficiency of technical service;

A methodology has been developed for planning the scope of maintenance of quarry dump trucks during maintenance.

Name of the topic: "Research and development of methods for optimizing the use of a complex of machines in the construction of highways"

Scientific supervisor: A. Sungatollakzy, senior lecturer at the Department of TELS

Main results:

- a set of road equipment has been completed that is fundamentally possible for the use of performing various operations in the construction of highways with the determination of productivity and cost of work;

- the optimal plan for the distribution of work volumes between types of machines is determined by solving the linear programming transport problem in accordance with the optimality criterion (the calculation is performed in the MathCad software environment).

1.2 Results of scientific work within the framework of a Corporate University

Bus Park No. 3 LLP, Virage Service Kazakhstan LLP, GorKomTrans of Karaganda LLP, Zhibek Zholy Ltd LLP reviewed and discussed dissertations of doctoral students at the technical council. The topics of theses and term papers, topics of master's and doctoral dissertations were also considered and approved, taking into account the national plan "100 concrete steps to implement five institutional reforms". The problematic issues of enterprises are considered and the topics of students' theses and master's theses that meet the real needs of production are proposed.

Bus Park No. 3 LLP, Virage Service Kazakhstan LLP, GorKomTrans of Karaganda LLP, Zhibek Zholy Ltd LLP analyzed the compliance of the competencies acquired by students with the requirements of the employer. According to the schedule, joint meetings were held in the technical councils of the enterprise in the course of fulfilling the Work Schedules and scientific developments of the department staff. The issues of conducting industrial and pre-graduate practical training of students at the enterprise are considered.

A questionnaire survey and analysis of the company's satisfaction with the quality of specialist training were conducted in Bus Park No. 3 LLP, Virage Service Kazakhstan LLP, Karaganda City GorComTrans LLP, Zhibek Zholy Ltd LLP.

In the International scientific and practical Conference "XVI Saginaw readings. Integration of education, science and production", June 13-14, 2024, A.Saginov Map was attended by representatives of enterprises of the KU: Grigoryan A.M. (Bus Park No. 3 LLP), Silchenko V.G. (Avtopark 3 LLP), Bimaganbetov M.A. (GorKomTrans), Kulev A.A. (LLPVirage Service Kazakhstan).

The results of the collaboration are presented by reports, which are presented by the department in the NAM card.

1.3 Scientific work with students

Scientific work with students at the department is carried out according to the approved plan of scientific and research work of students. Formed and functioned mugs NIRS "Quarry transport" (10 students), scientific manager of St. preparation Zharkenov N. B.;" logistics " (10 students), scientific supervisor St. teacher V. V. Shalaev

12 students and 8 undergraduates were invited to participate in the initiative topics. As a result of the scientific research work with students and undergraduates, 27 theses of the documents were prepared at the Republican student scientific conference "Youth Science in the implementation of the strategy "Kazakhstan-2050", named A. Saginova, held on April 11-12 in 2024, 14 students were also presented at the Republican competition

NIRS on sound, technical, socio-humanitarian and economic science. The Inside the university stage was held on February 21, 2024 according to the results of the best and recommended participation in the Inside the university stage:

Chapter: "Transport, transport equipment and technologies"

1 Place: Work Beisenbinova M. A. theme scientific work "use of artificial intelligence in road construction equipment" (scientific head Sungatollakzyz A.) (CAF.TT and LS);

2 Place: Work of student Slam zh.m. theme scientific work "innovations in transport and ways to solve transport and environmental problems in Karaganda" (scientific head Zharkenov N. B.) (CAF. TT and LS);

3 places: - work Sotchenko D. N., Auzhanova I. T., theme of scientific work "formation and development of transport and environmental culture in the Republic of Kazakhstan", (scientific head Aubekerova zh.N.) (CAF. TT and LS);

- work Zhakaba B. B., theme of scientific work "the role of ACs in determining the technical condition of the year-round composition in railway transport", (scientific head Baigozhina P. U.) (CAF. TT and LS).

Chapter: "Logistics (Transport)"

1 Place: Work Volokontseva A. A. on the theme of scientific work "studying the effectiveness of industrial complex logistics for enterprises of Kaz-METIZ LLP, (scientific head Shalaev V. V.) (CAF. TELSs).

2nd place: work Batishcheva N. P. theme of scientific work "exploration of transport corridors of the Republic of Kazakhstan", (scientific head Kizylbaeva E. zh.) (CAF. TELSs).

3 Place: Work Alikarimovoy zh.n. theme scientific work "logistics system of urban passenger transportation", (scientific head Karsakova A. zh.) (CAF. TELSs).



The results of scientific research obtained during the research are used when reading relevant disciplines and completing term papers and theses. The department annually holds competitions for the best course project and thesis completed on scientific topics. All theses contain a research section, at least 25% of the topics of theses are of a scientific nature.

The department has 2 research groups under the leadership of Doctor of Technical Sciences, Professor Kadyrov A.S. The first group includes: PhD Suleev B.D., PhD Ganyukov A.A., PhD Kyzylbayeva E.Zh., PhD Karsakova A.Zh., doctoral students Altynbaev A.Zh., Amanbaev S.Sh., Zhumabekov A.T., Baigozhina P.U., as well as 2 undergraduates, the second group includes: PhD Sarsembekov B.K., PhD Pak I.A., engineers Sinelnikov K.A., Kryuchkov E.Yu., doctoral students Kukeshva A.B., Dyusenbaev E.Sh., Aimukhanov D.S., Sadirbaev A.T., Isabaev M.S., as well as 2 undergraduates.

1.4 Innovative projects and developments of the Department

The Department of Transport Engineering and Logistics Systems works in the following scientific areas:

1 "Design development of a quick-assembly overpass to eliminate traffic jams during rush hours on public roads".

2 "Design development and calculation of a mobile overpass used in the repair of urban utility networks."

3 "Development of the design of an ultrasonic device for the disposal of exhaust gases of internal combustion engines."

4 "Development of proposals for the introduction of an ultrasonic car muffler."

5 "Development and research of ways to maintain the car cooling system using ultrasound."

6 "Development of a service system for maintenance and repair of quarry dump trucks."

7 "Development of a methodology for operational planning of the volume of mining dump trucks."

According to the results of scientific works of practical importance in real conditions, teaching staff of the department, doctoral students and undergraduates apply for certificates of entry of information into the state register of rights to objects protected by copyright.





1.5 1.5 Publications in journals indexed in the Scopus database and recommended by the SHEQAC

Scopus:

1.5.1. Kadyrov, A., Bembenek, M., Sarsembekov, B., Kukesheva, A., Nurkusheva, S. The Influence of the Frequency of Ultrasound on the Exhaust Gas Purification Process in a Diesel Car Muffler. Applied Sciences (Switzerland), 2024, 14(12), 5027

1.5.2. Kunaev, V., Bazarov, B., Kadyrov, A., Konakbaeva, A. Selective crushing, enrichment by friction properties and hydrophobization for obtaining the sustainable blast furnace slag aggregate for road subbase. Ain Shams Engineering Journal, 2024, 15(9), 102928

1.5.3. Kukesheva, A., Kadyrov, A., Kryuchkov, Y. Establishing the parameters of the operation mode of the electric pulse automobile muffler. Journal of Applied Engineering Science, 2024, 22(1), страницы 89–99, 1170

1.5.4. Pak I. Experimental study of the ultrasonic muffler efficiency for improving the exhaust gas cleaning system of internal combustion engines of automobiles Material and Mechanical Engineering Technology, 2024, 2024(2), страницы 53–63

SHEQAC:

1.5.5. Kyzylbaeva E.Zh., Yumaguzhin Sh.B., Ishchenko A.P. Development of a control system for tensioning devices of belt conveyors. Proceedings of the University No. 1, 2024

1.5.6. A.S. Kadyrov, V.A. Kunaev (KIU), G.D. Isabekova (KIU) Promising methods of optimizing the fleet of transport equipment for road construction. Bulletin of KazATK No. 1 (130), 2024

1.5.7. A.S. Kadyrov, V.A. Kunaev (KIU), J.I. Titova (KIU), S.V. Kan (KIU), L.M. Belgibaeva (KIU) A mathematical model for evaluating different options for mechanization of construction of transport infrastructure facilities. Bulletin of KazATK No. 1 (130), 2024

1.5.8. Karsakova A.J., Kadyrov A.S., Pak I.A., Kyzylbayeva E.J. Simulating the process of compacting the railway bed. Bulletin of the L.N. Gumilev ENU. Technical Sciences and Technologies Series No. 1(146), 2024

1.5.9. Kabikenov S.Zh., Shalaev V.V. Development of a software methodology for optimizing cargo delivery routes. KazATK Bulletin No. 4 (133), 2024

1.6 The Hirsch index of the teaching staff of the department "TEandLS" (SCOPUS)

Candidate of Technical Sciences, Associate Professor Kabikenov Sapar Zhomartovich

Doctor of Technical Sciences, Professor Ibatov Marat Kenesovich

Doctor of Technical Sciences, Professor Kadyrov Adil Suratovich

Candidate of Technical Sciences, Professor Intykov Tokmirza Smaqulovich

Candidate of Technical Sciences, acting Professor Kurmasheva Bakhyt Kuanyshevna

PhD, Associate Professor Suleev Bakhtiyar Daniyarovich

PhD, Acting Associate Professor Zharkenov Nursultan Balgaevich

PhD, Acting Associate Professor Zhunusbekova Zhanar Zhumashevna

PhD, Acting Associate Professor Karsakova Akbope Zholaevna

PhD, Acting Associate Professor Kyzylbayeva Elvira Zhanabekovna

PhD, Acting Associate Professor Pak Igor Anatolyevich

PhD, senior lecturer Kukisheva Aliya Bakibayeva

PhD, senior lecturer Sarsembekov Bauyrzhan Koblanovich