

PRACTICE-ORIENTED TRAINING OF HIGH QUALIFICATION PERSONNEL IN THE FIELD OF CONSTRUCTION

PhD. **I.G'.Ahmedov**

Namangan engineering construction institute

Sen teach., **I.I.Uamrov**

Namangan engineering construction institute

Trainee-teacher **Y.N.Rakhmatillayev**

Namangan engineering construction institute

Trainee-teacher **B.X.Sharopov**

Namangan engineering construction institute

Abstract: The issues of practice-oriented training of highly qualified personnel in the field of construction, as well as the modernization of the regional system of professional and continuing education based on the creation of a construction cluster, are considered.

Key words: vocational education, modernization, innovation, construction cluster.

Introduction.

In the context of the modernization of the Russian economy and the increasing complexity of the technosphere, there is an urgent need to form a new matrix of criteria for the training of construction specialists who have interdisciplinary knowledge and are able to comprehensively perceive the innovation process. This necessitates the need to improve the professional training of specialists, which should be as dynamic as the processes developing in the construction industry and capable of ensuring successful innovative transformations in the technology, organization and economics of construction enterprises.

Main part

A strategic resource for improving the quality of vocational education is the integration of a university and production and the formation on this basis of content and teaching methods that allow adapting the general theoretical and general professional training of future specialists to promising areas of innovative development of the construction industry [2].

In conditions of close interaction with innovative production, an educational institution has a number of additional opportunities to: regularly clarify the structure of professions and specialties, the scope of personnel training; constantly take into account the requirements of employers for the content of specialist training through the joint development of vocational education standards, curricula and programs; organize practical training for students on equipment operating in modern production; create conditions for systematic internship of teachers at enterprises to familiarize themselves with the latest types of equipment and technological processes; improve targeted training of specialists for a specific enterprise, increasing the employability of graduates; replenish extra-budgetary funds of educational institutions through joint projects, including advanced training courses for workers, the use of educational and material resources to fulfill orders from enterprises and other sources [1]. In this regard, it is necessary to create a qualitatively new mechanism for

interaction between an educational institution and a production organization, which will reliably ensure the educational process for the long term, based on the principles: prompt response to changes in the market for educational needs, specialties, etc.; optimal business connections; joint planning of core activities; reliability of partnership; long-term partnership; mutual participation in the activities of counterparties in order to improve business relations in the implementation of the main type of activity.

The role of partners can be: regulatory bodies, which are at the same time customers and consumers of services, whose main function is to form a list of graduates' competencies, develop educational and professional standards based on them, and monitor their application; self-regulatory construction organizations, which also influence the development and application of standards, regulation of supply and demand in the labor market; other organizations and structures that consume the university's services on an ongoing paid basis, participate in its development, and implement long-term targeted programs together with the university.

As a strategic tool in solving the problems of activating investment processes, it is important to create a construction cluster of a territorial intersectoral association of organizations involved in the construction process: enterprises of the building materials industry, construction design organizations, engineering infrastructure organizations, financial and credit, scientific organizations [3,4].

A necessary condition for the implementation of strategically significant tasks related to the formation of an innovation-type construction cluster, as well as the implementation of modernization changes in the construction industry of the Omsk region as a whole, is the creation of a system of professional continuing education that can adequately respond to innovative changes in the economy and market demands. In this regard, it becomes important to restructure this system, ensuring the deepening of cooperative ties of all organizations of primary, secondary and higher professional education. Integration of their activities will make it possible to rationally use material, technical and human resources, and successfully solve the problems of introducing effective educational programs and teaching methods. The association of vocational education institutions, along with SibADI, may include vocational education institutions that train specialists for the construction industry. The functions of an integrating and coordinating center in creating a system of professional training of specialists, improving their qualifications and professional retraining of personnel, ensuring the timely and effective development of competitive advantages of business structures in the construction industry, can be performed by the Siberian State Automobile and Highway Academy (SibADI), which has the necessary personnel and educational and methodological potential that allows you to successfully generate and transmit innovations in the field of vocational education.

The main goal of cluster policy in the field of development of the lifelong education system is to ensure cooperation between enterprises and educational organizations, which is implemented in the following areas:

- - monitoring and forecasting the needs of cluster participants for specialized human resources and planning, participation in the development of state assignments for the training of specialists;
- joint development of educational programs for basic and additional professional education; public and professional accreditation and assessment of the quality of the content of educational programs in the interests of cluster development;
- - joint implementation of educational programs (material, technical, technological and personnel support in terms of targeted training);
- joint implementation of educational programs (material, technical, technological and personnel

support in terms of targeted training);

Развитие кадрового потенциала важно проводить в рамках подготовки и переподготовки специалистов в сфере строительства, базой которой являются учебные и учебнопроизводственные зоны, которые размещены на территории СибАДИ, других образовательных и иных организаций. Модернизации системы профессионального образования должна осуществляться на основе Программы развития объединения образовательных учреждений профессионального образования (кластерного типа) на базе вуза, которая предусматривает создание современной системы непрерывного образования подготовки и переподготовки профессиональных кадров на основе интеграции среднего и высшего профессионального образования в рамках развития

Regional socio-economic system. This program must meet the following basic criteria:

- aimed at achieving the strategic goals of innovative development of the construction sector and stimulating interaction between scientific organizations, higher, secondary and primary vocational education, Russian and foreign companies within the framework of common projects and development programs;
- developed with the participation of employers' associations;
- ensure a reduction in the time required for professional training of specialists in institutions of primary vocational education by expanding the practice of correspondence and distance learning in general education disciplines, optimizing vocational education programs, strengthening the material and technical base of educational institutions;
- contain a set of measures that help increase the prestige of working professions, including the use of social advertising opportunities, familiarizing students of educational institutions with employment prospects in their chosen specialty and working conditions in enterprises and organizations;
- provide measures for additional support for graduates of primary and secondary vocational education institutions who have chosen to work in their core specialty;
- aimed at bringing the content and structure of professional training in line with the modern needs of the labor market and increasing the availability of quality educational services.

Favorable conditions for training specialists in the construction industry can be formed within the framework of the regional construction technology park SibADI. At the same time, the creation of a business incubator will ensure interaction between students and employers in the process of conducting seminars, practices, internships and other events in order to assist in the rapid adaptation of students to their future profession and the development of practical skills, in the selection of candidates for positions, as well as personal targeted training ordered by employers.

To complete industrial practical training for students on the basis of agreements, the production base of enterprises participating in the construction cluster can be used.

The creation of an innovative and practice-oriented system of professional and continuing education involves determining the need for specialists, which should be carried out on the basis of monitoring the labor market in the construction complex, as well as in accordance with the development needs of the construction market of the region. The functions of ensuring direct connections between employers and potential employees, as well as ensuring the nature of training that meets the practical needs of the construction industry, can be implemented through the Information and Analytical Coordination Center. The information and analytical coordination center should form a personnel information base, develop recommendations on the number and categories of specialists for enterprises, and deal with issues of career guidance and employment.

The development of international cooperation with the aim of integrating the region's

construction complex into the international market, borrowing the experience of foreign countries in the field of construction, construction technologies and materials, as well as in the field of training specialists, is becoming important. Cooperation with foreign universities, organizations and research institutions can be carried out in the following areas: cooperation in the field of educational and scientific-innovative relations between participants in the construction cluster and leading foreign higher education institutions; organizing and expanding internships for construction cluster participants in leading foreign educational institutions; participation in international scientific programs; attracting world-renowned scientists to teach and conduct research; implementation of joint innovation projects; study and implementation of modern foreign technologies; providing mechanisms to support the import of certain advanced foreign technologies; launching domestic innovative products onto the international market; placement of research centers of leading foreign companies on the basis of the SibADI construction technology park; holding international scientific and practical conferences.

Conclusion

In modern conditions, when vocational education, in its inextricable connection with science, is becoming a determining factor in the modernization of the economy and society, there is an urgent need to carry out qualitative changes in the regional system of vocational education in the field of construction. At the same time, it becomes important to develop mechanisms for interaction between the market for educational services and the labor market in the construction sector, including the interaction of educational institutions with organizations and enterprises in the construction industry.

It is important to direct the formation of the personnel base to deepen the cooperation of educational structures with leading companies in the construction sector, design and scientific organizations. This should facilitate effective dialogue between business and education and the development of qualification requirements that will produce specialists in demand in the labor market.

References:

1. Arifjanov, A., Akmalov, S., Akhmedov, I., & Atakulov, D. (2019, December). Evaluation of deformation procedure in waterbed of rivers. In *IOP Conference Series: Earth and Environmental Science* (Vol. 403, No. 1, p. 012155). IOP Publishing.
2. Ахмедов, И. Г., Ортиқов, И. А., & Умаров, И. И. (2021). Дарё ўзанидаги деформацион жараёнларни баҳолашда инновацион технологиялар [Innovative technologies in the assessment of deformation processes in the riverbed]. *Фарғона политехника институти илмий-техника журнали.–Фарғона*, 25(1), 139-142.
3. Abduraimova, D., Rakhmonov, R., Akhmedov, I., Xoshimov, S., & Eshmatova, B. (2022, June). Efficiency of use of resource-saving technology in reducing irrigation erosion. In *AIP Conference Proceedings* (Vol. 2432, No. 1). AIP Publishing.
4. Арифжанов, А. М., Самиев, Л. Н., Абдураимова, Д. А., & Ахмедов, И. Г. (2013). Ирригационное значение речных наносов. *Актуальные проблемы гуманитарных и естественных наук*, (6), 357-360.
5. Tadjiboyev, S., Qurbonov, X., Akhmedov, I., Voxidova, U., Babajanov, F., Tursunova, E., & Xodjakulova, D. (2022, June). Selection of electric motors power for lifting a flat survey in hydraulic structures. In *AIP Conference Proceedings* (Vol. 2432, No. 1). AIP Publishing.
6. Akhmedov, I., Khamidov, A., Kholmirezayev, S., Umarov, I., Dedakhanov, F., & Hakimov, S. (2022). ASSESSMENT OF THE EFFECT OF SEDIBLES FROM SOKHISOY RIVER TO KOKAND HYDROELECTRIC STATION. *Science and innovation*, 1(A8), 1086-1092.

7. Kholmirezayev, S., Akhmedov, I., Khamidov, A., Umarov, I., Dedakhanov, F., & Hakimov, S. (2022). USE OF SULFUR CONCRETE IN REINFORCED CONCRETE STRUCTURES. *Science and innovation, 1(A8)*, 985-990.
8. Arifjanov, A. (2021). Innovative technologies in the assessment of accumulation and erosion processes in the channels. *Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12(4)*, 110-114.
9. Нуриддинов, А. О., Ахмедов, И., & Хамидов, А. И. (2022). АВТОМОБИЛ ЙЎЛЛАРИНИ ҚУРИЛИШИДА ИННОВАЦИЯЛАР. *Academic research in educational sciences, 3(TSTU Conference 1)*, 211-215.
10. Хамидов, А. И., Ахмедов, И. Г., Мухитдинов, М. Б., & Кузибаев, Ш. (2022). Применение теплоизоляционного композиционного гипса для энергоэффективного строительства.
11. Хамидов, А. И., Ахмедов, И., & Кузибаев, Ш. (2020). ТЕПЛОИЗОЛЯЦИОННЫЕ МАТЕРИАЛЫ НА ОСНОВЕ ГИПСА И ОТХОДОВ СЕЛЬСКОГО ХОЗЯЙСТВА.
12. Fathulloev, A. M., Eshev, S. S., Samiev, L. N., Ahmedov, I. G., Jumaboyev, X., & Arifjanov, S. (2019). Boglanmagan gruntlardan tashkil topgan uzanlarda yuvilmaslik tezliklarini aniklash [To the determination of non-effective speed in the beds containing from unconnected soils]. *Journal "Irrigatsiya va melioratsiya". Tashkent, 27-32.*
13. Ahmedov, I., Muxitdinov, M., Umarov, I., & Ibragimova, Z. (2020). Assessment of the effect of sedibles from sokhsoy river to kokand hydroelectric power station. *InterConf.*
14. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Хакимов, С., & Умаров, И. (2022). ВЛИЯНИЯ ТЕМПЕРАТУРНО-ВЛАЖНОСТНОГО РЕЖИМА НА ВОДОПОГЛОЩЕНИЕ ЛЕГКИХ БЕТОНОВ НА ПОРЫСТЫХ ЗАПОЛНИТЕЛЯХ. *Journal of new century innovations, 19(8)*, 192-201.
15. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Хакимов, С., & Умаров, И. (2022). ЖАҲОНДА КИЧИК ГЭСЛАРНИ РИВОЖЛАНТИРИШНИНГ ҲОЗИРГИ ЗАМОН АНЪАНАЛАРИ. *Journal of new century innovations, 19(8)*, 110-119.
16. Ахмедов, И., Ризаев, Б., Хамидов, А., Холмирзаев, С., Умаров, И., & Хакимов, С. (2022). ПЕРСПЕКТИВЫ РАЗВИТИЯ ЖЕЛЕЗОБЕТОННЫХ КОНСТРУКЦИЙ В УЗБЕКИСТАНЕ. *Journal of new century innovations, 19(6)*, 60-70.
17. Холмирзаев, С., Ахмедов, И., Адхамжон, Ҳ., Ризаев, Б., Умаров, И., & Хакимов, С. (2022). ҚУРУҚ ИССИҚ ИҚЛИМЛИ ШАРОИТЛАРДА ҚУРИЛГАН ВА ФОЙДАЛАНАЁТИЛГАН БЕТОНЛИ ВА ТЕМИР БЕТОН КОНСТРУКЦИЯЛАРНИ ҲОЛАТИ. *Journal of new century innovations, 19(7)*, 180-190.
18. Ахмедов, И., Ризаев, Б., Хамидов, А., Холмирзаев, С., Умаров, И., & Хакимов, С. (2022). ДЕФОРМАТИВНОСТЬ ЖЕЛЕЗОБЕТОННЫХ КОЛОНН ИЗ ТЯЖЕЛОГО БЕТОНА В УСЛОВИЯХ СУХОГО ЖАРКОГО КЛИМАТА. *Journal of new century innovations, 19(6)*, 171-182.
19. Bakhodir, R., Islombek, A., Adhamjon, K., Sattor, K., Isroiljon, U., & Sodikjon, K. (2022). CALCULATION OF DEFORMATION CHANGES OF CENTRALLY COMPRESSED REINFORCED CONCRETE COLUMNS IN DRY HOT CLIMATIC CONDITIONS. *Journal of new century innovations, 19(6)*, 162-170.
20. Хамидов, А., Ахмедов, И., Холмирзаев, С., Ризаев, Б., Умаров, И., & Хакимов, С. (2022). ИССЛЕДОВАНИЕ СВОЙСТВ БЕТОНОВ НА ОСНОВЕ НЕГОРЮЧИХ ЩЕЛОЧНЫХ ВЯЖУЩИХ КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6)*, 123-134.

21. Ахмедов, И., Ризаев, Б., Хамидов, А., Холмирзаев, С., Умаров, И., & Хакимов, С. (2022). АНАЛИЗ ВЛИЯНИЯ СУХОГО ЖАРКОГО КЛИМАТА НА РАБОТУ ЖЕЛЕЗОБЕТОННЫХ ЭЛЕМЕНТОВ. *Journal of new century innovations*, 19(6), 39-48.
22. Bahodir, R., Islombek, A., Adhamjon, H., Sattor, K., Isroiljon, U., & Sodiqjon, H. (2022). INFLUENCE OF AGGRESSIVE MEDIA ON THE DURABILITY OF LIGHTWEIGHT CONCRETE. *Journal of new century innovations*, 19(6), 318-327.
23. Arifjanov, A., Atakulov, D., Akhmedov, I., & Hoshimov, A. (2022, December). Modern technologies in the study of processes in channels. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1112, No. 1, p. 012137). IOP Publishing.
24. Arifjanov, A., Akmalov, S., Akhmedov, I., & Atakulov, D. Evaluation of deformation procedure in waterbed of rivers.(2019) *IOP Conference Series: Earth and Environmental Science*, 403 (1). DOI: <https://doi.org/10.1088/1755-1315/403/1/012155>.
25. G'ulomjonovich, A. I., Abdurahmonovich, O. I., & Isoqjon o'g'li, U. I. (2021). EFFECTS OF WATER FLOW ON THE EROSION PROCESSES IN THE CHANNEL OF GIS TECHNOLOGY. *Journal of Advanced Scientific Research (ISSN: 0976-9595)*, 1(1).
26. Eshev, S. S., Fatxullaev, A. M., Samiev, L. N., Axmedov, I. G., Jumaboev, X., & Arifjanov, S. (2019). Determination of leaching rates in unconnected soils. *Irrigation and reclamation, Tashkent*, 27-30.
27. Fatkhulloev, A. M., Samiev, L. N., Axmedov, I. G., & Jumaboev, X. (2019). To the determination of non-effective speed in the beds containing from unconnected soils. *Journal of Irrigation and Melioration, Tashkent*, 1(15), 27-32.
28. Arifjanov, A. Sh. Akmalov, I. Akhmedov, and D. Atakulov. " . In *Evaluation of deformation procedure in waterbed of rivers.*" In *IOP Conference Series: Earth and Environmental Science* (Vol. 403, No. 1, p. 012155).
29. Холмирзаев, С., Ахмедов, И., Адхамжон, Х., Ризаев, Б., Феруза, Қ., & Умаров, И. (2022). МОДИФИКАЦИЯ ЛАНГАН СЕРОБЕТОННИНГ ФИЗИК-МЕХАНИК ХОССАЛАРИНИ ТАДҚИҚ ҚИЛИШ. *Journal of new century innovations*, 19(6), 240-247.
30. Умаров, И. И. Ў., & Атакулов, Д. Э. Ў. (2022). Дарё ўзандаги деформацион жараёнларни баҳолашда инновацион технологиялар. *Механика и технология*, (Спецвыпуск 1), 219-225.
31. Eshev, S. S., Fatxullaev, A. M., Samiev, L. N., Axmedov, I. G., Jumaboev, X., & Arifjanov, S. (2019). Irrigation and reclamation. *Journal.*, 1(15), 27-30.
32. Холмирзаев, С., Ахмедов, И., Адхамжон, Х., Ризаев, Б., Жалолов, З., & Умаров, И. (2022). ЎЗБЕКИСТОН РЕСПУБЛИКАСИ ҲУДУДИДА МОНОЛИТ ТЕМИР БЕТОН КОНСТРУКЦИЯЛАРИНИ ЎРНИ. *Journal of new century innovations*, 19(6), 265-276.
33. Холмирзаев, С., Ахмедов, И., Адхамжон, Х., Ризаев, Б., Фаррух, Д., & Умаров, И. (2022). ҚУРИЛИШ ТАЪЛИМ ЙЎНАЛИШЛАРИ УЧУН КАДРЛАР ТАЙЁРЛАШДА ФАН, ТАЪЛИМ ВА ИШЛАБ ЧИҚАРИШ ИНТЕГРАЦИЯСИНИНГ РОЛИ. *Journal of new century innovations*, 19(6), 256-264.
34. Ризаев, Б., Ахмедов, И., Адхамжон, Х., Холмирзаев, С., Жалолов, З., & Умаров, И. (2022). ЗАМОНАВИЙ ҚУРИЛИШ МАТЕРИАЛЛАРИ ФАНИНИ ЎҚИТИШДАГИ ИЛФОР ТАЪЛИМ МЕТОДЛАРИ. *Journal of new century innovations*, 19(7), 135-146.
35. Холмирзаев, С., Ахмедов, И., Адхамжон, Х., Ризаев, Б., Жалолов, З., & Умаров, И. (2022). БИНОЛАРНИНГ ТЕМИР БЕТОН КОНСТРУКЦИЯЛАРИНИ ИШОНЧИЛИК НАЗАРИЯСИ АСОСИДА ҲИСОБЛАШ. *Journal of new century innovations*, 19(6), 287-297.

36. Bahodir, R., Islombek, A., Adhamjon, K., Sattor, K., Farrux, D., & Isroiljon, U. (2022). EFFECTIVENESS OF USING ELEMENTS OF NANOTECHNOLOGY IN CONSTRUCTION MATERIALS SCIENCE. *Journal of new century innovations, 19(8)*, 163-172.
37. Холмирзаев, С., Ахмедов, И., Адхамжон, Х., Ризаев, Б., Жалолов, З., & Умаров, И. (2022). БИНО ВА ИНШОУТЛАР ЗИЛЗИЛАБАРДОШЛИГИНИНГ НАЗАРИЙ АСОСЛАРИ. *Journal of new century innovations, 19(8)*, 120-130.
38. Bahodir, R., Islombek, A., Adhamjon, K., Sattor, K., Feruza, Q., & Isroiljon, U. (2022). NEW INNOVATIVE IDEAS IN THE FIELD OF PRODUCTION OF REINFORCED CONCRETE STRUCTURES. *Journal of new century innovations, 19(8)*, 153-162.
39. Bahodir, R., Islombek, A., Adhamjon, K., Sattor, K., Zayniddin, J., & Isroiljon, U. (2022). INFLUENCE OF THE TEMPERATURE AND HUMIDITY REGIME ON THE WATER ABSORPTION OF LIGHT-WEIGHT CONCRETE ON POROUS AGGREGATES. *Journal of new century innovations, 19(8)*, 143-152.
40. Bahodir, R., Islombek, A., Adhamjon, K., Sattor, K., Zayniddin, J., & Isroiljon, U. (2022). CALCULATION OF ENERGY CHARACTERISTICS OF SOLAR HEATING SYSTEM. *Journal of new century innovations, 19(8)*, 56-65.
41. Ризаев, Б., Ахмедов, И., Холмирзаев, С., Хамидов, А., Кодирова, Ф., & Умаров, И. (2022). ОБЩИЕ СВЕДЕНИЯ О ПРИРОДНОМ КЛИМАТЕ РАЙОНОВ С СУХИМ ЖАРКИМ КЛИМАТОМ. *Journal of new century innovations, 19(6)*, 298-306.
42. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Жалалов, З., & Умаров, И. (2022). РАСЧЕТ НА ВХОДНЫЕ И ФОРМАЛЬНЫЕ ДЕФОРМАЦИИ БЕТОНА В ЕСТЕСТВЕННЫХ УСЛОВИЯХ СУХОГО ЖАРКОГО КЛИМАТА. *Journal of new century innovations, 19(6)*, 183-193.
43. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Фаррух, Д., & Умаров, И. (2022). ОБЩИЕ СВЕДЕНИЯ О ВЕТРЕ И ПЫЛИ В ЖАРКОМ СУХОМ КЛИМАТЕ. *Journal of new century innovations, 19(6)*, 307-317.
44. Ахмедов, И., Ризаев, Б., Адхамжон, Х., Холмирзаев, С., Феруза, Қ., & Умаров, И. (2022). ТУРАР-ЖОЙ БИНОЛАРИ ҚУРИЛИШИДА МОНОЛИТ ТЕМИР БЕТОНДАН ФОЙДАЛАНИШ САМАРАДОРЛИГИ. *Journal of new century innovations, 19(6)*, 215-223.
45. Ahmedov, I., Bahodir, R., Adhamjon, H., Sattor, K., Feruza, Q., & Isroiljan, U. (2022). DISTRIBUTION OF TEMPERATURE AND HUMIDITY IN CONCRETE OVER THE CROSS SECTION OF COLUMNS IN A DRY HOT CLIMATE. *Journal of new century innovations, 19(7)*, 123-134.
46. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Феруза, Қ., & Умаров, И. (2022). СОВРЕМЕННЫЕ ТРАДИЦИИ РАЗВИТИЯ МАЛОЙ ГИДРОЭНЕРГЕТИКИ В МИРЕ. *Journal of new century innovations, 19(8)*, 90-99.
47. Bahodir, R., Islombek, A., Adhamjon, K., Sattor, K., Zayniddin, J., & Isroiljon, U. (2022). MODERN TRADITIONS OF THE DEVELOPMENT OF SMALL HYDROPOWER IN THE WORLD. *Journal of new century innovations, 19(8)*, 100-109.
48. Bahodir, R., Islombek, A., Adhamjon, X., Sattor, X., Feruza, Q., & Isroiljon, U. (2022). TEMIR-BETON KONSTRUKTSIYALAR ISHLAB CHIQRISH SOHASIDAGI YANGI INNOVATSION G'UYALAR. *Journal of new century innovations, 19(7)*, 158-167.
49. Bahodir, R., Islombek, A., Adhamjon, H., Sattor, K., Isroiljon, U., & Farruh, D. (2022). CONDITION OF CONCRETE AND REINFORCED CONCRETE STRUCTURES BUILT

- AND USED IN A DRY HOT CLIMATE. *Journal of new century innovations, 19(7), 147-157.*
50. Холмирзаев, С., Ахмедов, И., Ризаев, Б., Хамидов, А., Кодирова, Ф., & Умаров, И. (2022). ИССЛЕДОВАНИЕ ФИЗИКО-МЕХАНИЧЕСКИХ СВОЙСТВ МОДИФИЦИРОВАННОГО СЕРОБЕТОНА КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6), 154-161.*
51. Хамидов, А., Ахмедов, И., Холмирзаев, С., Ризаев, Б., Умаров, И., & Фаррух, Д. (2022). АНАЛИЗ СПОСОБОВ ПЕРЕРАБОТКИ СЫРЬЯ SERA И ПОЛУЧЕНИЯ СЕРОБЕТОНА КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6), 93-102.*
52. Ахмедов, И., Ризаев, Б., Хамидов, А., Холмирзаев, С., Феруза, Қ., & Умаров, И. (2022). ИССЛЕДОВАНИЕ ЗОЛОШЛАКОВЫХ СМЕСИ ДЛЯ ПРОИЗВОДСТВА СТРОИТЕЛЬНЫХ МАТЕРИАЛОВ КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6), 103-112.*
53. Хамидов, А., Ахмедов, И., Ризаев, Б., Холмирзаев, С., Жалалов, З., Умаров, И., & Шаропов, Б. (2022). ТЕПЛОИЗОЛЯЦИОННЫЕ МАТЕРИАЛЫ НА ОСНОВЕ ГИПСА И СЕЛЬСКОХОЗЯЙСТВЕННЫХ ОТХОДОВ. КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6), 135-144.*
54. Ахмедов, И., Хамидов, А., Холмирзаев, С., Ризаев, Б., Умаров, И., & Фаррух, Д. (2022). ОЦЕНКА ВЛИЯНИЯ СЕДИБЛЕИ РЕКИ СОХСОЙ НА КОКАНДСКУЮ ГЭС. *Journal of new century innovations, 19(6), 145-153.*
55. Холмирзаев, С., Ахмедов, И., Хамидов, А., Кодирова, Ф., Умаров, И., & Фаррух, Д. (2022). РАСЧЕТ ЖЕЛЕЗОБЕТОННЫХ КОНСТРУКЦИЙ ЗДАНИЙ НА ОСНОВЕ ТЕОРИИ НАДЕЖНОСТИ. *Journal of new century innovations, 19(6), 29-38.*
56. Хамидов, А., Ахмедов, И., Ризаев, Б., Холмирзаев, С., Жалалов, З., & Умаров, И. (2022). ҚУРУҚ ИССИҚ ИҚЛИМЛИ ХУДУДЛАРНИНГ ТАБИЙ ИҚЛИМИ ҲАҚИДА УМУМИЙ МАЪЛУМОТ. *Journal of new century innovations, 19(6), 194-203.*
57. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Фаррух, Д., & Умаров, И. (2022). БИНОЛАРНИ ИСИТИШДА ҚУЁШ ЭНЕРГИЯСИДАН ФОЙДАЛАНИБ ЭНЕРГИЯ САМАРАДОРЛИКНИ ОШИРИШ ТАДБИРЛАРИ. *Journal of new century innovations, 19(8), 78-89.*
58. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Фаррух, Д., & Умаров, И. (2022). ҚУЁШЛИ ИСИТИШ ТИЗИМИНИНГ ЭНЕРГЕТИК ХАРАКТЕРИСТИКАЛАРИ ХИСОБИ. *Journal of new century innovations, 19(8), 25-36.*
59. Ахмедов, И., Ризаев, Б., Хамидов, А., Холмирзаев, С., Умаров, И., & Фаррух, Д. (2022). ЭФФЕКТИВНОСТЬ ИСПОЛЬЗОВАНИЯ МОНОЛИТНОГО ЖЕЛЕЗОБЕТОНА ПРИ СТРОИТЕЛЬСТВЕ ЖИЛЫЕ ДОМА. *Journal of new century innovations, 19(6), 71-80.*
60. Bahodir, R., Islombek, A., Sattor, X., Adxamjon, X., Feruza, Q., & Isroiljon, U. (2022). QURILISH MATERIALSHUNOSLIGIDA NANOTEKNOLOGIYA ELEMENTLARIDAN FOYDALANISH SAMARADORLIGI. *Journal of new century innovations, 19(7), 168-179.*
61. Холмирзаев, С., Ахмедов, И., Хамидов, А., Ризаев, Б., Жалалов, З., & Умаров, И. (2022). ПРИМЕНЕНИЕ МОНОЛИТНЫХ ЖЕЛЕЗОБЕТОННЫХ КОНСТРУКЦИЙ НА ТЕРРИТОРИИ РЕСПУБЛИКИ УЗБЕКИСТАН КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6), 81-92.*
62. Холмирзаев, С., Ахмедов, И., Ризаев, Б., Хамидов, А., Фаррух, Д., & Умаров, И. (2022). ПРИМЕНЕНИЕ СЕРОБЕТОНА В ЖЕЛЕЗОБЕТОННЫХ КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6), 3-11.*

63. Умаров, И. И. Ў. (2022). Тоғ олди дарёлар ўзанидаги жараёнларни баҳолашда табиий дала тадқиқотлари таҳлили. *Строительство и образование*, (2), 109-113.
64. Kholmirezayev, S., Akhmedov, I., Khamidov, A., Yusupov, S., Umarov, I., & Hakimov, S. (2022). ANALYSIS OF THE EFFECT OF DRY HOT CLIMATE ON THE WORK OF REINFORCED CONCRETE ELEMENTS. *Science and innovation*, 1(A8), 1033-1039.
65. Akhmedov, I., Khamidov, A., Kholmirezayev, S., Yusupov, S., & Umarov, I. (2022). Improving river sediment distribution calculation in mountain rivers. *Science and innovation*, 1(A8), 1014-1019.
66. Khamidov, A., Akhmedov, I., Kholmirezayev, S., Jalalov, Z., Yusupov, S., & Umarov, I. (2022). EFFECTIVENESS OF MODERN METHODS OF TESTING BUILDING STRUCTURES. *Science and innovation*, 1(A8), 1046-1051.
67. Kholmirezayev, S., Akhmedov, I., Khamidov, A., Jalalov, Z., Yusupov, S., & Umarov, I. (2022). THE ROLE OF THE INTEGRATION OF SCIENCE, EDUCATION AND PRODUCTION IN THE TRAINING OF PERSONNEL FOR CONSTRUCTION EDUCATIONAL AREAS. *Science and innovation*, 1(A8), 1040-1045.
68. Хамидов, А. И., Ахмедов, И., Юсупов, Ш., & Кузибаев, Ш. (2021). Использование теплоизоляционного композиционного гипса в энергоэффективном строительстве.
69. Холмирзаев, С., Ахмедов, И., Адхамжон, Х., Ризаев, Б., Юсупов, Ш., & Умаров, И. (2022). СЕРА ХОМ АШЁСИНИ ҚАЙТА ИШЛАШ ВА СЕРОБЕТОН ТАЙЁРЛАШ УСУЛЛАРИНИНГ ТАҲЛИЛИ. *Journal of new century innovations*, 19(6), 248-255.
70. Холмирзаев, С., Ахмедов, И., Адхамжон, Х., Ризаев, Б., Юсупов, Ш., & Умаров, И. (2022). ТЕМИР БЕТОН ЭЛЕМЕНТЛАРИНИНГ ДАРЗБАРДОШЛИГИГА МАРКАЗИЙ ОСИЁ ИҚЛИМИНИНГ ТАЪСИРИ. *Journal of new century innovations*, 19(6), 232-239.
71. Холмирзаев, С., Ахмедов, И., Адхамжон, Х., Ризаев, Б., Юсупов, Ш., & Умаров, И. (2022). ТУРАР-ЖОЙ БИНОЛАРИ ҚУРИЛИШИДА МОНОЛИТ ТЕМИР БЕТОНДАН ФОЙДАЛАНИШ САМАРАДОРЛИГИ. *Journal of new century innovations*, 19(6), 277-286.
72. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Юсупов, Ш., & Умаров, И. (2022). МЕРЫ ПО ПОВЫШЕНИЮ ЭНЕРГОЭФФЕКТИВНОСТИ ИСПОЛЬЗОВАНИЯ СОЛНЕЧНОЙ ЭНЕРГИИ В ОТОПЛЕНИИ ЗДАНИЙ. *Journal of new century innovations*, 19(8), 66-77.
73. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Юсупов, Ш., & Умаров, И. (2022). ҚУЁШ ЭНЕРГИЯСИДАН ФОЙДАЛАНИБ БИНОЛАРНИ ЭНЕРГИЯ САМАРАДОРЛИГИНИ ОШИРИШ ТАДБИРЛАРИ ХАКИДА. *Journal of new century innovations*, 19(8), 173-186.
74. Ahmedov, I., Bahodir, R., Adhamjon, H., Sattor, K., Shavkat, Y., & Isroiljan, U. (2022). PHYSICAL AND MECHANICAL PROPERTIES OF CONCRETE UNDER CONDITIONS OF DRY HOT CLIMATE. *Journal of new century innovations*, 19(8), 131-142.
75. Холмирзаев, С., Ахмедов, И., Ризаев, Б., Юсупов, Ш., Умаров, И., & Фаррух, Д. (2022). РОЛЬ ИНТЕГРАЦИИ НАУКИ, ОБРАЗОВАНИЯ И РАЗВИТИЯ В ПОДГОТОВКЕ КАДРОВ ДЛЯ СТРОИТЕЛЬСТВА. *Journal of new century innovations*, 19(6), 12-19.
76. Хамидов, А., Ахмедов, И., Холмирзаев, С., Ризаев, Б., Юсупов, Ш., & Умаров, И. (2022). ЭФФЕКТИВНОСТЬ СОВРЕМЕННЫХ МЕТОДОВ ИСПЫТАНИЙ СТРОИТЕЛЬНЫХ КОНСТРУКЦИЙ. *Journal of new century innovations*, 19(6), 57-59.
77. Холмирзаев, С., Ахмедов, И., Ризаев, Б., Хамидов, А., & Юсупов, Ш. (2022). РОЛЬ ИНТЕГРАЦИИ НАУКИ, ОБРАЗОВАНИЯ И ПРОИЗВОДСТВА В ПОДГОТОВКЕ

- КАДРОВ ДЛЯ СТРОИТЕЛЬНЫХ ОБРАЗОВАТЕЛЬНЫХ НАПРАВЛЕНИЙ. *Journal of new century innovations, 19(6), 49-57.*
78. Ахмедов, И., Ризаев, Б., Хамидов, А., Холмирзаев, С., Юсупов, Ш., & Умаров, И. (2022). ПРИМЕНЕНИЕ ТЕПЛОИЗОЛЯЦИОННОГО КОМПОЗИТА ГИПСОВОГО ДЛЯ ЭНЕРГОЭФФЕКТИВНОГО СТРОИТЕЛЬСТВА КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6), 113-122.*
79. Ахмедов, И., Хамидов, А., Холмирзаев, С., Юсупов, Ш., Кодирова, Ф., & Умаров, И. (2022). СОВЕРШЕНСТВОВАНИЕ РАСЧЕТА РАСПРЕДЕЛЕНИЯ НАСАДОВ В ГОРНЫХ РЕКАХ. *Journal of new century innovations, 19(6), 20-28.*
80. Sattor, X., Islombek, A., Adhamjon, H., Bahodir, R., Shavkat, Y., & Isroiljon, U. (2022). TEMIR-BETON KONSTRUKSIYALARIDA SERABETONDAN FOYDALANISH. *Journal of new century innovations, 19(6), 224-231.*
81. Ризаев, Б., Ахмедов, И., Хамидов, А., Холмирзаев, С., Юсупов, Ш., & Умаров, И. (2022). РАСЧЕТ ЭНЕРГЕТИЧЕСКИХ ХАРАКТЕРИСТИК СИСТЕМЫ СОЛНЕЧНОГО ОТОПЛЕНИЯ. *Journal of new century innovations, 19(8), 45-55.*
82. Bahodir, R., Islombek, A., Sattor, X., Adxamjon, X., Feruza, Q., & Isroiljon, U. (2022). QURILISH MATERIALSHUNOSLIGIDA NANOTEKNOLOGIYA ELEMENTLARIDAN FOYDALANISH SAMARADORLIGI. *Journal of new century innovations, 19(7), 168-179.*
83. Холмирзаев, С., Ахмедов, И., Хамидов, А., Ризаев, Б., Жалалов, З., & Умаров, И. (2022). ПРИМЕНЕНИЕ МОНОЛИТНЫХ ЖЕЛЕЗОБЕТОННЫХ КОНСТРУКЦИЙ НА ТЕРРИТОРИИ РЕСПУБЛИКИ УЗБЕКИСТАН КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6), 81-92.*
84. Холмирзаев, С., Ахмедов, И., Ризаев, Б., Хамидов, А., Фаррух, Д., & Умаров, И. (2022). ПРИМЕНЕНИЕ СЕРОБЕТОНА В ЖЕЛЕЗОБЕТОННЫХ КОНСТРУКЦИЯХ. *Journal of new century innovations, 19(6), 3-11.*
85. Умаров, И. И. Ў. (2022). Тоғ олди дарёлар ўзанидаги жараёнларни баҳолашда табиий дала тадқиқотлари таҳлили. *Строительство и образование, (2), 109-113.*
86. I.G'.Axmedov, & I.I.Umarov. (2023). STUDY OF THE PROPERTIES OF CONCRETE BASED ON ALKALINE BINDERS . *Journal of New Century Innovations, 43(1), 51–64.*
87. I.G'.Axmedov, & I.I.Umarov. (2023). THE USE OF SULFUR CONCRETE IN REINFORCED CONCRETE STRUCTURES . *Journal of New Century Innovations, 43(1), 65–75.*
88. I.G'.Axmedov, I.I.Umarov, & .D. Nuritdinov. (2023). SUPERPLASTIFIKATOR QO'SHILGAN GIPSOBETONNING FIZIK- MEKANIK XOSSALARI . *Journal of New Century Innovations, 43(1), 76–86.*
89. I.G'.Axmedov, I.I.Umarov, & J.D. Nuritdinov. (2023). INCREASING THE RESISTANCE OF TEMPERATURE EFFECTS OF SULFUR-BASED CONCRETES . *Journal of New Century Innovations, 43(1), 87–96.*
90. Мурадов Хамидулла Хабибуллаевич. (2023). МАҲАЛЛИЙ ХОМ-АШЁ ЛОГОН БЕНТОНИТ ГИЛИНИНГ ФИЛЬТРАЦИЯ КОЭФФИЦИЕНТИНИ АНИҚЛАШ . *Journal of New Century Innovations, 43(1), 97–106.*
91. Мурадов Хамидулла Хабибуллаевич. (2023). ФАРҒОНА ВИЛОЯТИ ЛОГОН БЕНТОНИТ ГИЛИНИНГ ХУСУСИЯТЛАРИ БЎЙИЧА ФОЙДАЛАНИШ САМАРАДОРЛИГИ . *Journal of New Century Innovations, 43(1), 107–118.*

92. Raxmatillayev Yosunbek Ne'matilla o'g'li. (2023). TURAR JOY BINOLARIDA QO'LLANILADIGAN ISSIQLIK TA'MINOTI TIZMLARINING HOZIRGI KUNDAGI TAHLILI . *Journal of New Century Innovations*, 43(1), 119–128.
93. Rakhmatillayev Yosunbek Ne'matilla o'g'li. (2023). ANALYSIS OF GROUNDWATER SOFTENING METHODS . *Journal of New Century Innovations*, 43(1), 129–139.
94. И.Ф.Ахмедов, И.И.Умаров, & Ф.А. Дадаханов. (2023). ВЫБОР ЭФФЕКТИВНЫХ МЕТОДОВ И ОБОРУДОВАНИЯ ДЛЯ СУШКИ СЫПУЧИХ СТРОИТЕЛЬНЫХ МАТЕРИАЛОВ . *Journal of New Century Innovations*, 43(1), 140–152.
95. И.Ф.Ахмедов, И.И.Умаров, & Ф.А. Дадаханов. (2023). ПРИНЦИПЫ ВЫБОРА ГАЗООЧИСТНОГО ОБОРУДОВАНИЯ . *Journal of New Century Innovations*, 43(1), 153–165.
96. М.Б.Мухитдинов. (2023). ТЎЛДИРУВЧИЛАРНИНГ КОМПОЗИТ ПОЛИМЕР ҚОПЛАМАЛАРНИНГ ЕЙИЛИШБАРДОШЛИГИ ВА АДГЕЗИОН ХОССАЛАРИГА ТАЪСИРИ . *Journal of New Century Innovations*, 43(1), 180–191.
97. Б.Х Шаропов, & Ё.Н.Рахматиллаев. (2023). ҚУЁШЛИ ИСИТИШ ТИЗИМИНИНГ ЭНЕРГЕТИК ХАРАКТЕРИСТИКАЛАРИ ХИСОБИ . *Journal of New Century Innovations*, 43(1), 192–204.
98. Мухитдинов Музаффар Бахтиёрович. (2023). ҚУРИЛИШ МАТЕРИАЛЛАРИ ВА БУЮМЛАРИ ФАНИНИ ЯНГИ ПЕДАГОГИК ТЕХНОЛОГИЯЛАР АСОСИДА ЎҚИТИШ . *Journal of New Century Innovations*, 43(1), 166–179.
99. Sharopov Begyor Xolmatjon o'g'li, & Raxmatillayev Yosunbek Ne'matilla o'g'li. (2023). ISSIQLIK IZOLYATSIYA MATERIALLARINI FIZIK XOSSALARINI ANIQLASH . *Journal of New Century Innovations*, 43(1), 205–218.
100. I.G'. .Axmedov, I.I. Umarov, & B.X.Sharopov. (2023). XORIY VA RESPUBLIKAMIZ BINOLARIDA ENERGIYADAN SAMARALI FOYDALANISH USULLARINING TAHLILI. *Journal of New Century Innovations*, 43(1), 219–229.
101. А. Хамидов, И. Ахмедов, & Б.Х.Шаропов. (2023). ИССЛЕДОВАНИЯ ЗОЛО-ШЛАКОВЫХ СМЕСЕЙ ДЛЯ ПРОИЗВОДСТВА СТРОИТЕЛЬНЫХ МАТЕРИАЛОВ . *Journal of New Century Innovations*, 43(1), 230–241.
102. I.G'. .Axmedov, I.I. Umarov, & B.X.Sharopov. (2023). JAMOAT BINOLARINI ISITISHDA QUYOSH ENERGIYASIDAN FOYDALANISHNING SAMARADORLIGI . *Journal of New Century Innovations*, 43(1), 242–254.
103. Ахмедов И, Умаров И, & Нуритдинов Ж. (2023). ЁҒОЧ МАТЕРИАЛЛАРИНИ ЁНҒИНБАРДОШЛИК ДАРАЖАСИНИ АНТИПИРЕНЛАР ЁРДАМИДА ОШИРИШ . *Journal of New Century Innovations*, 43(1), 255–268.
104. I.G'.Ahmedov, & I.I.Umarov. (2023). THE USE OF SLAG MIXTURES FOR THE MANUFACTURE OF BUILDING MATERIALS . *Journal of New Century Innovations*, 43(1), 269–280.
105. I.G'.Ahmedov, & I.I.Umarov. (2023). INSULATION COMPOSITE PLASTER FOR ENERGY-SAVING CONSTRUCTION . *Journal of New Century Innovations*, 43(1), 281–293.
106. Shamsitdinovich, R. B., & Bakhtiyorovich, M. M. (2023). Air Temperature and Humidity in Experimental Testing of Building Materials Used in the Climate of the Republic of Uzbekistan. *Web of Synergy: International Interdisciplinary Research Journal*, 2(4), 591-598.

107. Ризаев, Б. Ш., & Мухитдинов, М. Б. (2023). ИЗУЧЕНИЕ ВЛИЯНИЯ КЛИМАТИЧЕСКИХ УСЛОВИЙ НАШЕЙ РЕСПУБЛИКИ НА РАБОТУ ЖЕЛЕЗОБЕТОННЫХ ЭЛЕМЕНТОВ. *Scientific Impulse*, 1(9), 186-195.
108. Хакимов, С. (2022). ТОННЕЛЛАР ҚАЗИШНИНГ САМАРАЛИ УСУЛЛАРИ ВА УЛАРНИ КАМЧИЛИКЛАРИ. *Journal of Advanced Research and Stability*, 2(9), 219-222.
109. Хакимов, С. (2023). ПОВТОРНОЕ ИСПОЛЬЗОВАНИЕ ВОДЫ В АВТОМОЙКАХ ПУТИ МАРШРУТИЗАЦИИ. *ТЕСНика*, (1 (10)), 1-5.
110. Хакимов, С. (2022). АКТИВ ВА ПАССИВ СЕЙСМИК УСУЛЛАРИ ҲАМДА УЛАРНИНГ АСОСИЙ ВАЗИФАЛАРИ. *Journal of Integrated Education and Research*, 1(2), 30-36.
111. Khamidov, A. I., & Khakimov, S. (2023). Study of the Properties of Concrete Based on Non-Fired Alkaline Binders. *European Journal of Geography, Regional Planning and Development*, 1(1), 33-39.
112. Khamidov, A., & Khakimov, S. (2023). MOISTURE LOSS FROM FRESHLY LAID CONCRETE DEPENDING ON THE TEMPERATURE AND HUMIDITY OF THE ENVIRONMENT. *Science and innovation*, 2(A4), 274-279.