

THE ROLE OF THE INTEGRATION OF SCIENCE, EDUCATION AND PRODUCTION IN THE TRAINING OF PERSONNEL FOR CONSTRUCTION EDUCATIONAL AREAS

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Abstract. *In this scientific article, methods for the implementation of the science taste and production integration are shown to further improve the quality of education in construction educational areas. The activities carried out by the professors and teachers of the department and their results are covered in this area.*

Keywords: *integration, Science, Education, production, qualification practice, technology, economics, graduation work, innovation, research, scientific development, material.*

РОЛЬ ИНТЕГРАЦИИ НАУКИ, ОБРАЗОВАНИЯ И ПРОИЗВОДСТВА В ПОДГОТОВКЕ КАДРОВ ДЛЯ СТРОИТЕЛЬНЫХ ОБРАЗОВАТЕЛЬНЫХ НАПРАВЛЕНИЙ

Аннотация. *В данной научной статье показаны методы реализации вкуса науки и интеграции производства для дальнейшего повышения качества образования по строительным образовательным направлениям. В этой области освещаются деятельность, проводимая профессорами и преподавателями кафедры, и их результаты.*

Ключевые слова: *интеграция, наука, образование, производство, квалификационная практика, технология, экономика, выпускная работа, инновации, исследования, научные разработки, материал.*

INTRODUCTION

Ensuring the competitiveness of the national economy in the conditions of today's globalization, the rapid development of Science and technology through the training of highly qualified specialists with deep modern knowledge, achieve a wide introduction of innovative scientific developments into the production of new high requirements for Science, Education and business. Uzbekistan is a science-driven country. As early as the Middle Ages, The Mamun Academy was established in Khiva. The Eastern renaissance of the IX-XIV centuries made an invaluable contribution to the development of the sciences of our great ancestors - modern mathematics, trigonometry and geography Muhammad ibn Musa al-Khorezm, who founded the science of algebra al-Khorezm, the main astronomical instrument in the Middle Ages – Ahmad Fargani, who developed the theory of usturlob, was one of the first in world science to come up

with original new ideas on the theory of the seas and the creation of a spherical globe of the Earth, Abu Rayhon Beruni, who was awarded the title of one of the greatest thinkers of mankind, such as Abu Ali ibn Sina, Mirzo Ulugbek, who gained fame Their universal discoveries, the scientific schools they created led to the emergence and adulthood of a wave of new and new talented generations. This, along with the rapid growth of the economy, agriculture and urban economy, the high level of development of crafts and trade, the construction of roads, the opening of new caravan routes, also served to ensure relative stability on the kurrai-land. Taking an example from the great discoveries of the geniuses of the East, the ancestors of the people of Science Of The Present Time, re-perceiving and evaluating the laws that have arisen over the centuries, carry out large-scale deep scientific research to increase the power of independent states, form and develop the modern economy.

RESEARCH MATERIALS AND METHODOLOGY

At present, the integration of Science Education and production has become one of the important factors in raising the quality of education to a higher level. There are several factors in the training of personnel in the areas of construction education, including in the educational direction "production of building materials, objects and structures:

- raising qualification practice to a qualitatively new level
- conducting some classes in specialty subjects at production enterprises;
- more coverage of students for participation in research work carried out by professors and teachers of the Department on the basis of an economic contract;
- attracting leading specialists of production enterprises to train students;
- wider involvement of high-level students in scientific seminars under the Department of specialty and ensuring their participation in lectures.

A comprehensive approach to the above-mentioned activities will serve as an important element in further improving the quality of Education. In subsequent years, many activities were carried out in the implementation of the integration of Science Education and production by professors and teachers of the Department of building materials and products. In particular, special attention was paid to conducting qualification practice for students of each stage. As a leader of the practice, leading professors and teachers of the department, as well as experienced specialists of production enterprises were appointed. Each student was provided with a perfectly developed methodological instruction in accordance with the type of practice. The methodological instruction was given the topic of independent work devoted to thinking as well as conducting small studies. At the end of the internship, students' reports were listened with the participation of specialists from the production enterprise. As a result, the efficiency achieved at the end of the qualification practice has reached a new level. The department has branches in "techno standard test" LLC and "Bunyodkor-3" LLC, and laboratory classes on "building materials and products", practical classes on "technology of concrete fillers", "technology of concrete and reinforced concrete products" are held at these branches.

RESEARCH RESULTS

At the department there is a scientific seminar on building materials and structures, professors, undergraduates and talented students regularly participate in the seminar. Engineering and technical staff of production enterprises in this field also participate in the Seminar with their lectures. Activities aimed at improving the quality of Education give its

positive result. In particular, over the next three years, 19 students who graduated from The Bachelor's degree in this direction of Education studied at the master's level.

CONCLUSION

Of these, 9 are studying at the Tashkent architectural and Construction Institute, 2 at prestigious universities in China, 1 at the University of the Russian Federation, and 8 at the Namangan Engineering Construction Institute in various master's specialties. Currently, professors and teachers of the department are the South Ural State University of the Russian Federation, Novosibirsk State University of architecture and construction, M. On the basis of a cooperation agreement with the University of South Kazakhstan named after Auezov, they are establishing joint training of personnel.

REFERENCES

1. Fathulloev A.M., Eshev S.S., Samiev L.N., Ahmedov I.G', Jumaboyev X., Arifjanov S. 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. – 2019. – С. 27-32.
2. Arifjanov A., Akmalov Sh., Akhmedov I., Atakulov D. Evaluation of deformation procedure in waterbed of rivers //IOP Conference Series: Earth and Environmental Science. – IOP Publishing, 2019. – Т. 403. – №. 1. – С. 012155.
3. Arifjanov A., Samiyev L., Akhmedov I., Atakulov D. Innovative Technologies In The Assessment Of Accumulation And Erosion Processes In The Channels //Turkish Journal of Computer and Mathematics Education (TURCOMAT). – 2021. – Т. 12. – №. 4. – Pp. 110-114.
4. Axmedov I.G', Muxitdinov M., Umarov I., Ibragimova Z. Assessment of the effect of sedibles from sokhsoy river to kokand hydroelectric power station //InterConf. – 2020.
5. Arifjanov A.M., Ibragimova Z.I., Axmedov I.G'. Analysis Of Natural Field Research In The Assessment Of Processes In The Foothills The American Journal of Applied sciences. – 2020. – Т. 2. – №. 09. – Pp. 293-298.
6. Арифжанов А.М., Самиев, Л.Н., Абдураимова, Д.А., Ахмедов, И.Г. Ирригационное значение речных наносов [Irrigation value of river sediments] //Актуальные проблемы гуманитарных и естественных наук. – 2013. – №. 6.
7. Ахмедов И.Ф., Ортиқов И.А., Умаров И.И. 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. – 2021. – Т.25, №.1. – С. 139-142.
8. Axmedov I.G', Ortiqov I.A., Umarov I.I. Effects of water flow on the erosion processes in the channel of GIS technology // <https://doi.org/10.5281/zenodo.5819579>
9. Tadjiboyev S., Qurbonov X., Akhmedov I., Voxidova U., Babajanov F., Tursunova E., Xodjakulova D. Selection of Electric Motors Power for Lifting a Flat Survey in Hydraulic Structures // AIP Conference Proceedings 2432, 030114 (2022); <https://doi.org/10.1063/5.0089643>
10. Abduraimova D., Rakhmonov R., Akhmedov I., Xoshimov S., Eshmatova B. Efficiency of use of resource-saving technology in reducing irrigation erosion // AIP Conference Proceedings 2432, 040001 (2022); <https://doi.org/10.1063/5.0089645>

11. Холмирзаев С. А., Комилова Н. Х. Влияние сухого жаркого климата на ширину раскрытия трещин внецентренно-сжатых железобетонных элементов //Приволжский научный вестник. – 2015. – №. 4-1 (44).
12. Холмирзаев С. А. Температурные изменения в керамзитобетонных колоннах в условиях сухого жаркого климата //Журнал «Бетон и железобетон. – 2001. – №. 2.
13. СА Холмирзаев, АР Ахмедов. Базальт толасининг тўлдирувчи сифатида цемент тошининг мустаҳкамлик хоссаларига таъсирини ўрганиш. Ijtimoiy fanlarda innovasiya onlayn ilmiy jurnali 2 (6), 49-55 2022
14. Хамидов А. И. и др. Использование теплоизоляционного композиционного гипса в энергоэффективном строительстве. – 2021.
15. Хамидов А. И., Нуманова С. Э., Жураев Д. П. У. Прочность бетона на основе безобжиговых щёлочных вяжущих, твердеющего в условиях сухого и жаркого климата //Символ науки. – 2016. – №. 1-2. – С. 107-109.
16. Нуманова С. Э. Хамидов Адхамжон Иномжонович //ISSN 2410-700X. – С. 107.
17. Хамидов А. И., Ахмедов И., Кузибаев Ш. Теплоизоляционные материалы на основе гипса и отходов сельского хозяйства. – 2020.
18. Хамидов А. И. Использование теплоизоляционных материалов для крыш в энергоэффективном строительстве //Научно–технический журнал ФерПИ. Спец. – №. 2018.
19. Хамидов А. И., Мухитдинов М. Б., Юсупов Ш. Р. Физико-механические свойства бетона на основе безобжиговых щелочных вяжущих, твердеющих в условиях сухого и жаркого климата. – 2020.
20. Нуриддинов А. О., Ахмедов И., Хамидов А. И. АВТОМОБИЛ ЙЎЛЛАРИНИ ҚУРИЛИШИДА ИННОВАЦИЯЛАР //Academic research in educational sciences. – 2022. – Т. 3. – №. TSTU Conference 1. – С. 73-77.
21. Нуманова С. Э. Хамидов Адхамжон Иномжонович //ISSN 2410-700X. – С. 107.
22. Ризаев Б. Ш. Прочность, деформативность и трещиностойкость внецентренно-сжатых железобетонных элементов в условиях сухого жаркого климата. – 1993.
23. Абдуназаров, А., Хакимов, С., Умаров, И., Мухторалиева, М., Дедаханов, Ф., & Шаропов, Б. (2022). МЕРОПРИЯТИЯ ПО ПОВЫШЕНИЮ ЭНЕРГОЭФФЕКТИВНОСТИ СОВРЕМЕННЫХ И РЕКОНСТРУИРУЕМЫХ ЗДАНИЙ. Journal of new century innovations, 18(1), 130-134.
24. Hakimov, S., Sharopov, B., Umarov, I., Muxtoraliyeva, M., Dadaxanov, F., & Abdunazarov, A. (2022). URILISH MATERIALLARI SANOATIDA INNOVATION MATERIALLAR ISHLAB CHIQRISHNING ISTIQBOLLI TOMONLARI. Journal of new century innovations, 18(1), 149-156.
25. Sharopov, B., Hakimov, S., Umarov, I., Muxtoraliyeva, M., Dadaxanov, F., & Abdunazarov, A. (2022). QUYOSH ENERGIYASIDAN FOYDALANIB TURAR JOY BINOLARI QURISHNING ISTIQBOLI TOMONLARI. Journal of new century innovations, 18(1), 135-141.
26. Sodiqjon, K., Begyor, S., Aleksandr, K., Farrukh, D., Mukhtasar, M., & Akbarjon, A. (2022). PROSPECTIVE ASPECTS OF USING SOLAR ENERGY. Journal of new century innovations, 18(1), 142-148.

27. Kazadayev, A., Sharopov, B., Hakimov, S., Umarov, I., Muxtoraliyeva, M., Dadaxanov, F., & Abdunazarov, A. (2022). MAMLAKATIMIZDA NEMIS TA'LIM TIZIMINI JORIY QILISHNING SAMARADORLIGI TAHLILI. *Journal of new century innovations*, 18(1), 124-129.
28. Mukhtasar, M., Begyor, S., Aleksandr, K., Farrukh, D., Isroil, U., Sodiqjon, K., & Akbarjon, A. (2022). ANALYSIS OF THE EFFECTIVENESS OF THE DEVELOPMENT OF THE GERMAN EDUCATION SYSTEM IN OUR COUNTRY. *Journal of new century innovations*, 18(1), 168-173.
29. Dadaxanov, F., Sharopov, B., Umarov, I., Mukhtoraliev, M., Hakimov, S., Abdunazarov, A., & Kazadayev, A. (2022). PROSPECTS OF INNOVATIVE MATERIALS PRODUCTION IN THE BUILDING MATERIALS INDUSTRY. *Journal of new century innovations*, 18(1), 162-167.
30. Begyor, S., Isroil, U., Aleksandr, K., Farrukh, D., Mukhtasar, M., Sodiqjon, K., & Akbarjon, A. (2022). MEASURES TO IMPROVE THE ENERGY EFFICIENCY OF MODERN AND RECONSTRUCTED BUILDINGS. *Journal of new century innovations*, 18(1), 157-161.
31. Kodirova F. M., Negmatov U. Algorithms For Stable Estimation Of The Extended State Vector Of Controlled Objects //Solid State Technology. – 2020. – Т. 63. – №. 6. – С. 14903-14909.
32. Кодиров Д. Т., Кодирова Ф. М. Алгоритмы совместного оценивания вектора состояния и параметров динамических систем //Universum: технические науки. – 2021. – №. 7-1 (88). – С. 66-68.
33. Кодиров Д. Т., Кодирова Ф. М. Перспективные энергоносители будущего //Вестник Науки и Творчества. – 2020. – №. 5 (53). – С. 50-53.
34. Кодирова Ф. М. Получение кондиционных углеводородов переработкой пироконденсата и подземной газификацией угля компаундированием //Вестник Науки и Творчества. – 2017. – №. 7 (19). – С. 15-18.
35. Yuvmitov A., Hakimov S. R. Influence of seismic isolation on the stress-strain state of buildings //Acta of Turin Polytechnic University in Tashkent. – 2021. – Т. 11. – №. 1. – С. 71-79.
36. Ювмитов А., Хакимов С. Исследование влияния сейсмоизоляции на динамические характеристики ЗДАНИЯ //Acta of Turin Polytechnic University in Tashkent. – 2020. – Т. 10. – №. 2. – С. 14.
37. Abdunazarov A., Soliev N. Study of the performance of frameless construction structures under the influence of vertical stresses of ultra-submerged the lyoss soils //Студенческий вестник. – 2020. – Т. 28. – №. 126 часть 3. – С. 39.
38. Хошимов С. Н. У., Казадаев А. М. УСТАНОВКА ДООЧИСТКИ СТОЧНЫХ ВОД ОТ НЕФТЕПРОДУКТОВ //Вестник Науки и Творчества. – 2017. – №. 3 (15). – С. 147-150.
39. Ювмитов А. С., Казадаев А. М. ИССЛЕДОВАНИЕ РАСПРОСТРАНЕННЫХ ОШИБОК, ДОПУСКАЕМЫХ В ПРОЦЕССЕ СТРОИТЕЛЬСТВА ЗДАНИЙ И СООРУЖЕНИЙ, МЕРЫ ПО ИХ НЕДОПУЩЕНИЮ И УЛУЧШЕНИЮ КАЧЕСТВА СТРОИТЕЛЬСТВА //Central Asian Research Journal for Interdisciplinary Studies (CARJIS). – 2022. – №. Special issue. – С. 140-145.

40. Казадаев А. М., Обидинова Г.Ш., РОЛЬ МАЛОГО БИЗНЕСА И ЧАСТНОГО ПРЕДПРИНИМАТЕЛЬСТВА В РЕСПУБЛИКЕ УЗБЕКИСТАН // Теория и практика современной науки. – 2017. – №. 5 (23). – С. 1005-1008.