

Recommendations for Improving The Training System for Passenger Specialists

Saydazimov Nosirjon Tursunovich
Namangan State Technical University
Email: Snosirjon1964@gmail.com

Abstract: This article presents recommendations for improving the system of training passenger and road sector specialists in higher education institutions. The study focuses on strengthening the role of universities in the labor market, enhancing cooperation between educational institutions and road construction enterprises, and improving the quality and practical orientation of engineering education. Special attention is given to the integration of theoretical training with real production conditions, as well as the involvement of industry professionals in the educational process. The analysis reveals several challenges in the current training system, including insufficient interaction between universities and enterprises, limited participation of industry specialists in curriculum development, and the dominance of traditional teaching methods. These factors negatively affect the competitiveness of graduates in the labor market. The article proposes a set of measures aimed at modernizing the educational process, including the development of joint curricula with enterprises, expansion of internship programs, introduction of innovative teaching technologies, and improvement of assessment systems. The implementation of these recommendations is expected to enhance the quality of training, strengthen university-industry collaboration, and ensure the preparation of highly qualified and competitive specialists for the road and transport sector.

Keywords: Higher Education, Professional Training, Road Sector Specialists, University–Industry Cooperation, Educational Quality Improvement, Engineering Education, Practical Training, Curriculum Development, Internships, Innovative Teaching Methods

1. Introduction

The article proposes to solve tasks aimed at increasing the role of higher education in the labor market in the field of road management, improving communication and integration between the institute and road enterprises, improving the quality of education and training competitive road specialists who play an important role in improving the quality of design, construction, and operation of highways.

The article proposes solutions to problems aimed at increasing the role of higher education in the labor market in the field of road management, improving communication and integration between the institute and road enterprises, improving the quality of education and training competitive road specialists who play an important role in improving the quality of road design, construction, and operation.

An analysis of the existing system for training road engineers shows that one of the main problems in training is the low level of communication and integration between the institute and road enterprises, the insufficiency of educational and methodological materials developed with the participation of production personnel, the lack of real involvement of highly qualified practitioners, the increased use of traditional teaching methods, and, as a result, the training of road specialists with low competitiveness[1,2].

It should be noted that at present, the wishes and requirements of employers are superficially taken into account when developing educational programs, curricula, instructions for the implementation

of course projects, and work and final project work for the training of road specialists. It should be noted that since February 2017, when the Decree of the President of the Republic of Uzbekistan "On measures to improve the road management system" was adopted, attention has been paid to these issues. In order to ensure the implementation of the decree of the President of the Republic of Uzbekistan, educational institutions have begun concluding corporate contracts with road management enterprises. Such contracts were concluded with the Namangan Institute of Engineering and Construction (NamMI) and the Main Territorial Administration of Automobile Roads of the Namangan Region, the unitary enterprise "Namangan Automobile Roads Training Center," "Namanganyulloyiha" LLC, as well as the Namangan regional branch of "Yul-Loyiha Byuro"[3,4,5]. The conclusion of corporate agreements between NamMQI and enterprises gave a certain impetus to the deepening of their integration. At the same time, actual leading specialists—production workers—were not involved in developing the content of curricula, syllabi, course projects, course work, and methodological manuals for graduation project work, nor in conducting training sessions for road specialists during the educational process, including on the production bases of enterprises, due to the fact that they were engaged in their primary activities[6].

2. Methodology

This study is based on a systematic and integrated methodological approach aimed at improving the training system of passenger and road sector specialists in higher education institutions. The research combines theoretical analysis and practical investigation to identify existing problems and develop effective recommendations.

In the theoretical part, scientific literature, regulatory documents, academic publications, and policy papers related to road engineering education and university–industry cooperation were analyzed. Particular attention was paid to state decrees, educational standards, and international experience in professional training of road specialists.

The empirical part of the study involved observation and comparative analysis of current educational processes at technical universities and their cooperation with road construction enterprises. Interviews and discussions with academic staff and industry practitioners were also considered to identify gaps in curriculum design, teaching methods, and practical training[7,8,9]. The collected data were processed using analysis, synthesis, and systematization methods. A comparative approach was applied to evaluate the differences between traditional and practice-oriented training models. Based on the findings, recommendations were developed to enhance curriculum integration, strengthen industry participation, and improve the quality of practical training[10].

The methodological framework ensured the reliability and validity of the results and provided a basis for proposing effective solutions for modernizing the training system in the road sector.

3. Results and Discussion

This article is aimed at improving the quality and quantity of events organized by NamSA and the Main Territorial Department of Highways of Namangan Region, the unitary enterprise "Namangan Highway Workers' Training Center," and "Namanganyulloyiha" LLC. "Road Project Bureau" as a regional branch in Namangan, conducting joint work on the development of educational programs; creating internship and internship programs for students at industrial enterprises, as well as training programs for employees of road management organizations in full-time and part-time forms of study at NamKPI; Providing students and faculty of NamSKI with modern machinery and mechanisms, equipment, and laboratory equipment relevant to the road industry; as well as developing innovative building materials and construction technologies at NamSKI, increasing the efficiency of scientific research aimed at improving the operation and maintenance of roads and

artificial structures, as well as organizing and managing road management, alongside the development of the national economy[11,12].

The main goal of these recommendations is to identify and solve problems aimed at increasing the role of higher education in the labor market within the road sector. It also plays an important role in improving communication and integration between the institute and road enterprises, improving the content of educational and methodological materials with the participation of production personnel, real involvement of leading specialists—production personnel—increasing the quality of education and training competitive road specialists.

To achieve the main goal, it is planned to apply the following strategy: Real and maximum involvement of leading specialists—road manufacturers—in the process of developing the content of educational materials. Utilization of the material and technical base of production with the involvement of interns, as well as the introduction of transparent and innovative teaching methods, quality control, and testing of students' knowledge that yields real results in the educational process[13,14].

To achieve the main goal, it is planned to apply the following strategy: Real and maximum involvement of leading specialists—road management manufacturers—in the process of developing the content of educational materials. The use of the material and technical base of production with the involvement of interns, as well as the introduction of transparent and innovative methods of conducting lessons, their quality control and testing of students' knowledge, will give real results in the process of preparing a competitive path. NamISI specialists.

The implementation of the Strategy includes addressing the following tasks:

1. Establishment of a working group from among leading professors, teachers, and leading specialists of the road sector—producers.
2. Study and analysis of problems and shortcomings in the training of road specialists at the Namangan Engineering and Construction Institute.
3. Studying and improving the content of educational materials and processes.
4. Development of methodological guidelines for conducting lecture texts, practical, and laboratory sessions using "iSpring" ICT and "INSERT" interactive pedagogical technology.
5. Attracting leading specialists—production personnel—to conduct classes.
6. Participation of the working group in monitoring the conduct of classes.
7. Monitoring the quality of lessons in "one-line" mode.
8. Conducting final assessment in the form of a complex task, i.e., tests, situational tasks, and realistic, specific production and educational tasks. This practice of testing students' knowledge was used by the USAID Foundation (USA).

Implementation of the proposed strategy for the qualitative improvement of existing corporate relations between NamMCI and the Main Territorial Department of Highways of the Namangan Region, the unitary enterprise "Namangan Road Training Center," and "Institute Namangandorproekt" LLC. Namangan Regional Branch of "Road Design Bureau." This is because they are employers and are interested in improving the quality of road specialist training based on educational materials created with their direct participation.

The actual results are as follows:

- Develop a guide that covers all the questions of studying the subjects and applying the acquired knowledge in practice, as well as the recommended rational regime of the student's day, contributing to the improvement of learning and attendance during the study period[15].
- Development of a working training program for the 1st year of the 5340800 "Roads and Airfields" direction in close cooperation with road construction specialists.
- Develop curricula for the subjects chosen by the student in close cooperation with specialist

road builders.

- Development of working training programs for all disciplines in the field 5340800 "Roads and Airfields" in close cooperation with road specialists.
- Developing guidelines and programs for familiarization, production, and pre-graduation internships in close cooperation with specialists - road builders.
- Developing educational and methodological complexes for all subjects in close cooperation with specialists - road builders.
- 100% completion of practical and laboratory classes at production enterprises.
- Involve leading specialists - practitioners to conduct training.
- Formation of a database of graduation project topics covering all road management issues.
- A high level of student attendance and competitive road specialist training has been achieved, which is one of the main problems of higher education institutions.

To implement the proposal, experienced and highly qualified specialists and faculty members with advanced training certificates and a portfolio of high scores are available at NamSKI and road organizations in the Namangan region.

To solve this problem, the Department of Road Engineering is conducting research work and submitting projects to the Ministry of Innovative Development and the Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan. A computer program for monitoring the supply of regional unitary road enterprises of the Republic of Uzbekistan is being developed, and consultations are being held with the Transport Infrastructure Development Department of the Ministry of Innovative Development, as well as the Ministry of Transport of the Republic of Uzbekistan. Within the framework of a practical project of the Republic of Uzbekistan.

4. Conclusion

This study highlights the importance of improving the training system for passenger and road sector specialists through the strengthening of cooperation between higher education institutions and industry enterprises. The analysis shows that the current educational process is still largely based on traditional teaching methods, with insufficient involvement of practical professionals and limited integration between universities and production organizations.

The proposed recommendations emphasize the need to modernize curricula, expand internship opportunities, and actively involve industry specialists in teaching and training processes. In addition, the use of innovative pedagogical technologies and modern assessment methods can significantly improve the quality of education and better prepare students for real working conditions.

The implementation of these measures will contribute to the development of highly qualified, competitive specialists who meet the requirements of the labor market. Furthermore, stronger university–industry collaboration will enhance the effectiveness of the educational system and support the sustainable development of the road and transport sector.

References

- [1] *Decree of the President of the Republic of Uzbekistan "On measures to improve the road management system"*, Narodnoye Slovo, no. 34, Feb. 16, 2017.
- [2] R. M. Akhmedov and N. T. Saydazimov, "Innovative pedagogical technologies in the training of road management specialists," in *Materials of the Republican Scientific and Practical Conference*, Namangan, Uzbekistan, 2018, pp. 253–255.
- [3] N. T. Saydazimov, "Basic systems of reinforced concrete bridges, areas of application and description of 3D modeling," *Economics and Society*, vol. 2, no. 1(81), pp. 308–311, 2021.
- [4] N. T. Saydazimov, "Materials used for water protection of reinforced concrete structures used

- in modern bridges II,” *Economics and Society*, vol. 11, no. 1(102), pp. 298–301, 2022.
- [5] N. T. Saydazimov, “Materials used for waterproofing reinforced concrete structures used in modern bridges,” *Scientific Journal of Mechanics and Technology*, no. 2(11), pp. 222–226, 2023.
- [6] D. Nurkhanov et al., “The process of applying ‘Geoset’ based on local raw materials to extend the service life of highways,” *Academic Research in Educational Sciences*, vol. 2, no. 11, pp. 62–68, 2021.
- [7] N. T. Saydazimov, “Modern solutions for eliminating the appearance of cracks in reinforced concrete structures used in bridges,” *Scientific Bulletin of NamSU*, no. 4, pp. 489–494, 2023.
- [8] N. T. Saydazimov, “Deformation joints of bridge spans on highways and increasing the strength and longevity of their protective layer,” *FarPI Scientific and Technical Journal*, no. 2, pp. 150–152, 2022.
- [9] N. T. Saydazimov, *Engineering Structures on Highways*. Tashkent: Mashrab, 2021.
- [10] N. T. Saydazimov et al., “Research of methods of repair of cement concrete pavements,” *Economics and Society*, pp. 1677–1680, 2020.
- [11] P. A. Longley, M. F. Goodchild, D. J. Maguire, and D. W. Rhind, *Geographic Information Systems and Science*. Hoboken, NJ, USA: John Wiley & Sons, 2015.
- [12] P. A. Burrough, R. A. McDonnell, and C. D. Lloyd, *Principles of Geographical Information Systems*. Oxford, UK: Oxford University Press, 2015.
- [13] D. Mohan and G. Tiwari, *Traffic Safety and Injury Prevention*. Boca Raton, FL, USA: CRC Press, 2016.
- [14] M. A. Hadi and H. A. Rakha, *Intelligent Transportation Systems: Principles and Applications*. Boca Raton, FL, USA: CRC Press, 2015.
- [15] *Law of the Republic of Uzbekistan “On Highways”*.