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ЭНЕРГЕТИКИ: ПУТИ ИХ ИННОВАЦИОННОГО РЕШЕНИЯ»***

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В сборник включены материалы X Международной научно – практической конференции на тему: «Актуальные проблемы транспорта и энергетики: пути их инновационного решения», проходившей в г. Нур-Султан 17 марта 2022 года.

Тематика статей и докладов участников конференции посвящена актуальным вопросам организации перевозок, движения и эксплуатации транспорта, стандартизации, метрологии и сертификации, транспорту, транспортной техники и технологии, теплоэнергетики и электроэнергетики.

Материалы конференции дают отражение научной деятельности ведущих ученых дальнего, ближнего зарубежья, Республики Казахстан и могут быть полезными для докторантов, магистрантов и студентов.



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passengers. To avoid such negative effect, magnetic shields are used on the rolling stock and passenger embarkation facility. Therefore, maintaining the magnetic radiation below the necessary level of ICNIRP guidelines.

To sum up, results of the study allowed us to form certain conclusions regarding high-speed trains and their impact on the environment. Passenger high-speed rail lines are rapidly gaining popularity as a leading role in transport planning. Given the development of different types of alternative energy, such as wind, solar, and biomass energy, it can be assumed that alternative energy in the transport sector will be implemented successfully.

Maglev trains are considered one of the most promising modes of transport of the future. From ordinary trains and monorails, trains on a magnetic cushion are distinguished by the complete absence of wheels – when moving, the cars seem to hover over one wide rail due to the action of magnetic forces. As a result, the speed of such a train can reach 400 km / h, and in some cases, such transport can replace an airplane.

Maglev system and technology will involve masses of work in saving energy and protecting environment even in advanced countries

References

1. MO Fan. “Development and Innovation of High Speed Maglev Transportation.” Coal Technology, 11, 2021, (in Chinese)
2. Rong-Jong Wai, Jeng-Dao Lee, “Adaptive Fuzzy-Neural-Network Control for Maglev Transportation System,” IEEE Transactions on Neural Networks, Vol,19,No.1, 54~70, January 2021.
3. Xiaohong Chen, “High-speed Maglev Noise Impacts on Residents: A Case Study in Shanghai,” Transportation Research Part D12, 437-448, 2020
4. Chao Wang «A Study on Environmental Impact of High Speed Maglev Traffic Engineering» // Online resource: <https://ieeexplore.ieee.org/document/5576917>

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FEATURES AND PROBLEMS OF THE MARKET FOR THE PROVISION OF REGULAR PASSENGER ROAD TRANSPORT SERVICES

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Abstract The article considers the features and problems of the market for the provision of regular passenger road transport services, as well as the solution to these problems. Recommendations for the further development of road transport services were noted.

Introduction World experience demonstrates that in the leading countries of the world special attention is paid to the transport infrastructure market as well as economic responsibility, flexible management costs, and use of resources to maximize profits.

Nowadays the provision of transport services to consumers takes place in accordance with established regulatory legal acts and allocated conditions for specific routes.

The main principles of organizing regular passenger road transport are:

- ensuring the safety of passenger traffic;
- timely and high-quality provision of motor transport services;

- ensuring the availability of regular motor transport services for the population;
- ensuring equal access of entrepreneurial transport structures for participants in the process, the provision of transport services, regardless of their form of ownership.

The organization of the provision of transport services to the population on regular routes provides for:

- organization of regular bus routes in the implementation of intra-district and inter-district passenger transportation;
- control over compliance with the specified conditions for the implementation of regular passenger transportation;
- ensuring the availability of services for the population;
- development of measures aimed at meeting the demand of the population in bus transportation[1].

Problems and solutions of the market for the provision of regular passenger road transport services

In the process of managing passenger road transport, information is required on transport costs, the costs of the population for transport, as well as on the premises of production, economic and financial activities.

The process of passenger transportation along the route according to the senior route according to the schedule available in the stop trip, stop for boarding and disembarking passengers.

The development of regular bus transport provides for taking into account the benefits from the use of vehicles. Under these conditions, the average passenger traffic is estimated, the required number of buses is determined; regular transportation, and waiting for passengers at stops. The use of conventional passenger cars, the type of traffic, the development of public transport, reliability, travel comfort, as well as the time spent on travel is also assessed [2].

In the current conditions on passenger vehicles, there are disadvantages:

- large depreciation of the passenger fleet, leading to an increase in transport costs;
- shortage of buses of large capacity in the provision of regular passenger transportation services;
- growth of costs for the development of urban passenger road transport, etc.

It is important to note that the main problems are the occupancy of the bus cabin, the irrational scheduling of buses on the routes.

Based on this, improving the organization of management of transport structures refers to the development and reform of the transport and road system. At the same time, in the field of development of passenger vehicles, the tasks are specified on the basis of taking into account:

- replenishment of the fleet with new buses and minibusses;
- development of the transport and road network;
- ensuring the income of enterprises in amounts sufficient to renew the fleet of vehicles and others [3].

Speaking about the improvement of the tariff policy, it is worth noting that the problem of public transport enterprises is that they cannot become profitable in modern conditions due to more efficient work, and not by raising tariffs. And today, in general, they remain unprofitable. The peculiarity of the functioning of public transport lies in the need to harmonize the economic interests of transport enterprises and public interests, taking into account the needs of all segments of the population and implies a strictly balanced approach to the formation of tariffs for the use of public transport services. Today, in order to meet the population's requirements for transport services in terms of quantitative, qualitative, and economic parameters and at the same time ensure the profitability of public transport enterprises, it is necessary to restrain the growth of public transport tariffs [4].

The main ways to reduce tariff growth are state regulation and the creation of a market economy, the implementation of which should take into account the following main points:

- the abolition of tariff regulation is associated with the risk of a sharp increase in fares, and the preservation of regulation leads to a deterioration in transport services for the population. When regulating tariffs, there is a uniform package of transport services and there is no incentive for carriers to introduce innovations in transport services;

- in the presence of competition, the involvement of private carriers can reduce the budget burden and improve the quality of transport services provided, and in its absence, worsen the quality of transport services for the population, as well as cause an increase in travel costs;

- the conclusion of contracts for transport services on a competitive basis is a fairly effective means of creating competition. The system of competitions makes it possible to achieve more efficient and high levels of transport services. To do this, it is necessary to create a thoughtful and balanced system of competitions based on objective assessments of the level of applicants and making private decisions with the maximum exclusion of subjective approaches. At the same time, one of the options for ensuring the overall level of profitability of passenger transportation can be the formation of lots that combine low-profit and unprofitable socially significant routes with profitable ones;

- conclusion of contracts with carriers for a long period of time (from 3 to 5 years) can serve as an incentive for investing in the sphere of passenger transportation of financial resources and attract new carriers.

The implementation of dispatch control of public transport ensures the operational management of public transport and generates objective information about its functioning. For this, it is necessary, within the framework of the information and analytical system of public transport management, to informational combine the central dispatch services of municipalities, dispatch centers at transport enterprises, railway stations, and stations. Dispatch control of public transport will provide:

- improving the quality of transport services to the population through continuous automated traffic control in real-time;

- coordination and synchronization of the operation of all types of public transport by linking traffic intervals by periods of the day on adjoining routes;

- increasing the efficiency of the use of rolling stock by reducing unproductive losses of time on the route and the rational use of rolling stock and reserve on the busiest routes;

- provision of information to the population about public transport timetables via the Internet information and telecommunications network, information kiosks, in Call-centers via urban and cellular telephone communications and through other means of informing the population;

- a complete transition to automated accounting and control of the organization of the work of the transport complex by integrating bus stations, transport enterprises, and vehicles into a single information space [5].

Conclusion Based on the foregoing, it can be concluded that the market for regular passenger motor transport services in Kazakhstan is at the stage of formation and development. Experience shows that those transport business structures that develop and use modern methods of strategic management achieve significant results and profits in comparison with other enterprises above the industry average.

Thus, taking into account the identified features and solving the identified problems can significantly improve the efficiency of regular passenger road transport services.

References

“Road transport statistics”: textbook / I.M. Alekseeva, O.I. Ganchenko, E.V. Petrov. - M.: Exam, 2005. - 352 p.

“Entrepreneurial activity in road transport: transportation and car service”: a study guide / V.P. Bychkov. - M.: Academic project, 2009. - 573 p.

“Passenger road transport”: textbook / V.A. Gudkov, L.B. Mirotin, A.V. Velmozhin, S.A. Shiryaev. - M.: Hotline - Telecom, 2006. - 447 p.

“Organization and management of passenger road transport”: textbook / I.V. Spirin. – M.: Academy, 2011. – 398 p.

“Road transportation”: textbook / I.S. Turevsky. – M.: Forum Publishing House, 2011. – 222 p.