continuous calculation of aircraft trajectory by velocity vector data (integration of measured velocity vector in time or double of acceleration relatively the ground surface) taking into account the initial coordinates. It is proposed to consider the method of inertial dead reckoning with correlation-extreme method. Moreover, research of INS correction algorithm based on computer vision. In addition, significant number of basic algorithms is developed, based mainly on the radar system, and implemented, but without appropriate accuracy level. However, it still cannot regard this problem as finally solved due to reason as algorithms that are more powerful exist, but rarely used, because its requires large computational cost. So, it is needed to build such algorithm that could corrected INS with lower computational cost and higher accuracy. For this purpose linear landmark detection algorithm for INS correction is developed. *So*, the analysis of the effectiveness of the INS correction showed that the algorithmic software is appropriate for use on UAV board and due to applying computer vision systems, gives as correct results of location determining as possible.

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PRELIMINARY PILOT TESTING

The work of pilot is one of the most difficult activity, that why the training is difficult as well. The process of professional training includes a lot of instruments and devices. The level of training should mainly guarantee safety. Accident analysis and preconditions shows that factors such as the mistakes in flight operations, errors in piloting techniques and operation of aviation equipment determines the overall accident rate. This causes the need to improve the organization of flight training for flight crews.

Aviation training process includes many elements, each of which has its own purpose. Simulator as part of the educational process and training plays an important role in training aviation specialists not only in the final stages of training, but also during knowledge and skills testing.

One of the stages to obtain a license of pilot after theoretical knowledge verification is computer testing. The approach of the future pilot's professional knowledge verification save time of the candidates and excludes subjectivity at the evaluation. The candidates must show their knowledge and skills (for example, knowledge of the main laws of aeronautics, flight training, knowledge of mathematics, physical or computer science, engineering, technical management etc.).

Computer testing of successfulness gives an opportunity to realize the main principles of control training. The system of computer technology allows to increase the effectiveness of training and gives opportunities to present different types of educational information.

The most important for today are the problems of increasing the quality of specialists training in conditions of radical reform, the search for new forms and methods of educational process, the use of advanced learning technologies. This is especially true for the current stage of development of aviation education, whose purpose is to prepare specialists in aviation sphere with high level of professionalism, general and aviation professional culture, creating conditions for continuous professional and personal development. That is why for the development of aviation in the world is required the use of tests as the main technology of knowledge and skills evaluation of applicants for pilot certificate.

Testing as a stage that precedes the flight activity, solves the task of forming the readiness of future pilot to perform flights. That is why always important to develop new, more efficient algorithms for the process of their preparation.

In recent years, due to increased requirements for the pilots there was automation of all stages of flight and increasing of the requirements for English language proficiency. Despite the fact that the principles of the initial flight training have not changed and remain sufficiently effective, modern conditions require modification of traditional approaches of flight personnel training.

There is a wide variety of testing knowledge algorithms, but they do not take into account all the details of the knowledge required for the future pilot, and this creates problems in training. Given situation leads us to the problem of the development new and effective knowledge control algorithms, choose automated testing system according to the external factors and propose interface of the knowledge control system. Testing of knowledge can be the tool by which it is possible a comprehensive approach to the preparation of flight crews, allowing to form skills, experience, professional qualities.

All pilot training is directed toward developing safe and competent pilots. The wider is student understanding of theory and principles, the easier it will be for that student to become a safe and competent pilot. It has long been recognized that flight and ground instruction go hand in hand. Each complements the other, resulting in a training program that is both meaningful and comprehensive.

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