



## APPLICATION OF AUTOMATIC SAFETY ELEMENTS IN THE PROCESS OF USING THE ELEVATOR

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Article history:	Abstract:
<b>Received:</b> 1 <sup>st</sup> July 2021 <b>Accepted:</b> 11 <sup>th</sup> July 2021 <b>Published:</b> 12 <sup>th</sup> August 2021	The purpose of this study is the automation of management in the field of utilities, the main emphasis is on the use of automated safety elements during the operation of elevators. The proposed program "Algorithm for automatic control of the elevator device", which was developed by us in addition to the operating programs of the dispatch service, taking into account the thoughts of a specialist in this field, Chio Lin (1), created by an algorithm (2) based on the methods of R. Clatté. The proposed program is viewed as an auxiliary program for elevator security and dispatching, which is automatically triggered depending on the order of occurrence of dangerous conditions in the elevator, specific devices, and informs the higher management through an additional control system.
<b>Keywords:</b> Automated, algorithmic, climatic, resources, interior, infrastructure, innovative, microprocessor, control rooms.	

### INTRODUCTION

Depending on the geographical location, climate, land structure of Uzbekistan, the construction of multi-storey houses is being carried out in accordance with the latest technologies, designs, interiors of developed countries in accordance with state standards for construction. One of the main reasons for the rapid construction of high-rise buildings in our country, as well as developed countries, is the high rate of population growth, improved living conditions, which means that population growth, like all resources, requires increased demand for housing, jobs and all necessary resources, in order to prevent this issue from becoming a global issue, the head of our state drew attention to this issue and instructed the industry to implement the construction of multi-storey buildings, half underground and half above.

### METHODOLOGY :

The construction of buildings in this method creates natural conditions, such as overcrowding, living and working in one place. Safety measures are required to be at the highest level in densely populated, working and moving areas. The goal of safety is to totally prevent damage to people, their property, and their health in the event of natural disasters, high-risk fires, power and gas network crossings, high-risk product production and storage, and consumer delivery as well as preservation.

The design of any facility takes into account security measures, the practical application of the issues we raise, and the organization of automated management of security measures in the event of a threat around the facility.

Regardless of the area of vital processes, whether it has developed or not, it is necessary to pay attention to the joint renewal of security measures. For example, whether the demand of the construction industry for multi-storey buildings, multi-employee facilities will increase, will lead to further improvement of the demand for security, which will lead to the development of new automated methods of security and practical measures.

### MAIN PART

This issue will be solved by the creation of creative ways and security structures for its security if there is renewal in the vital process, the willingness to use ICT.

For example, due to the development of the digital economy, the concept of "National Digital Economic Security System" has emerged as a complex political, legal, organizational, technical, socio-cultural system, which reflects the national interests of the objects and subjects of the digital economy. can be protected.

As a result, public policy necessitates the establishment of a regulatory framework to ensure national digital economic security.

The fundamental idea behind this concept is to improve security by implementing automatic controls in the use of elevators, which is implemented in the following scenarios. In reality, in the automation of the usage of elevators, the elevator's reliability plays a significant role in increasing the elevator's reliability.

Modern elevators in modern homes can achieve high quality services if they organize the use of analytical processing and transmission of data using information systems. There are reasonable requirements for the reliability and safety of the use of the elevator. According to statistics, the high performance of elevator use in the world nowadays is effectively assessed.

Currently, the construction of multi-storey buildings is underway in all cities of the country, including Samarkand. Therefore, ensuring high quality maintenance and safety of the population in the use of elevators is one of the main tasks assigned to employees in this area. In this regard, it is necessary to automate the management of modern elevator equipment and to achieve quality service through the use of innovative technologies.

The automation of the elevator infrastructure, i.e., the administration of elevator service via microprocessor stations, will be accomplished through the use of modern communication (video surveillance) in the use of communication services between the elevator user and the dispatcher (1).

Secondly, in the event of an emergency failure of elevator equipment, maintenance, increasing the efficiency of the security system, the organization of real-time monitoring of elevator service are elements of automation, all of which can solve the problem.

Remote control of the dispatching service in the automation of elevator equipment, power supply, and emergency prevention, as well as remote control of elevator equipment by the operator, provides for faster device maintenance.

Automation requires the operation of the elevator, its real condition, the provision of computers, communication devices (telephone, video surveillance), alarm panels and other automatic surveillance devices instead of the constant control dispatcher.

The information from the elevator block arrives at the server and local dispatch control point at the same time (indicator signals, elevator operation status, etc.) and then the information is automatically transmitted to the central control point, the information is transferred to the senior controller and analyzed and ensured.

In this way, all employees are informed about the type of service. This type of automated control increases the efficiency of using the elevator. The information system of the elevator will be implemented through the Internet service, which will speed up the maintenance and safety of elevators.

### **SUGGESTION:**

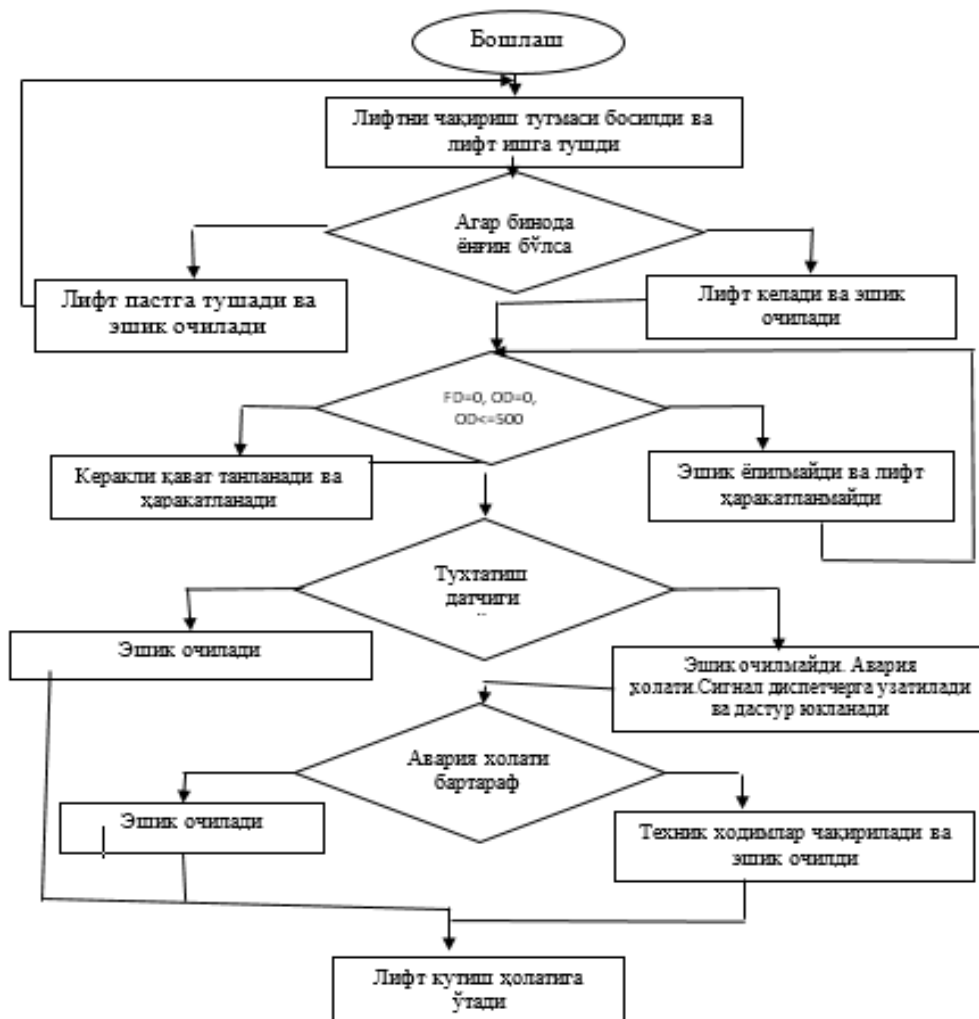
This proposed automated operation will ensure the real-time control of the entire workflow.

Our approach to this automatic control system is to automate the use of elevator services in the event of a fire or other hazardous situation in the bionodes.

This idea was called the "Algorithm for automatic control of the elevator device", and through this algorithm was created a program for the management of dangerous situations in an animated state, which creates an animated process that reflects the state of control using a program.

The program simulates the transition of the elevator to automatic mode in the event of a fire in the building, and its animation mode model is developed separately (2).

The block diagram of the firefighting algorithm in the building and the program in Pascal algorithmic language are as follows:



**Program lift\_harakati;**

```

varFD,OD,TGD,TD,TempD:integer;
begin
write('Liftnichaqirishuchun 1 nibosing: ');
readln(TGD);
write('Temperaturadachigi 1 bo`lsayong`inxolati: ');
readln(TempD);
ifTempD=1
thenwriteln('Lift qulufanibavtomatikrejimdapastkiqavatgatushadivaeshikochildi: ')
else
begin
writeln('Lift kutishrejimigaotibFotodatchchikvaog`irlikdatchchiklarinitekshiradi, FD=0 va OD=0 bo`lsaharakatlanadi!');
readln(FD,OD);
if (FD=0)and(OD=0) then
begin
Writeln('Lift harakatda, kerakliqavatgayaqinlashgandatormizdatchchigi 1 bo`lsasekinto`xtaydi: ');
readln(TD);
if TD=1 then writeln('Lift eshigiochildivakutishrejimigao`tildi!')
else
begin
writeln('Lift eshigiochilmaydi. Avariyaolatigao`tadi!');
writeln('Signal dispetcherxizmatigauzatiladivadasturqaytayuklanadi!');
writeln('Avariya bartarafetildi Lift eshigiochiladivakutishrejimigao`tadi!');
writeln('AksxoldaTexnikxizmatko`rsatishxodimlaritamonidanAvariya bartarafetiladi!');
writeln('Lift kutishrejimigao`tadi!');
end;
end
elsewriteln('Eshikyopilmaydiva Lift harakatlanmaydi!')
end;end.

```

### CONCLUSION

As a summary of the proposed cases and the recommended results, we can specify the followings:

- The control process is loaded into an automated workplace,
- Security is ensured through information management,
- Prevention of natural disasters in buildings and structures,
- The quality of elevator operation and communication services will increase,
- Management service is automated, etc.

On the other hand, it leads to the resolution of difficulties such as focusing on the construction of a creative approach to the use of ICT, facilitating manual labor, and enhancing quality through process automation based on the needs for the teaching process in higher and secondary education.

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