



## **ANALYSIS OF MONITORING AND FORECASTING OF EMERGENCY SITUATIONS IN RAILWAY TRANSPORT**

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<https://doi.org/10.5281/zenodo.7556307>

Annotation. The purpose of monitoring and forecasting is to observe, control and foresee dangerous natural phenomena, technosphere processes, external destabilizing factors. Monitoring and forecasting make it possible to identify the sources of emergency situations, trace the dynamics of their development, determine the scale, as well as solve the problem of prevention and organize the elimination of the consequences of natural disasters.

An important role in monitoring and forecasting emergency situations is played by the Ministry of Natural Resources and Ecology of the Republic of Uzbekistan, which carries out the overall management of the state system of environmental monitoring and coordinates activities in the field of monitoring the state of the environment.

The Ministry of Natural Resources and Ecology monitors the sources of anthropogenic impact on the natural environment; terrestrial flora and fauna, including chess; aquatic environment in places of water intake and wastewater discharge.

Monitoring of hazardous geological processes includes three control subsystems: control of exogenous (ie occurring on the Earth's surface or in the upper part of the earth's crust) geological processes; control of endogenous (i.e., occurring in the bowels of the Earth) geological processes and control of groundwater.

The Ministry of Health and Social Development of the Republic of Uzbekistan, through the territorial bodies of sanitary and epidemiological supervision, organizes and implements social and hygienic monitoring and forecasts the situation in this area.

Supervision over the state of man-made objects and forecasting of accidents is carried out by the Republic of Uzbekistan Service for Supervision in the Sphere of Nature Management and the Liberal Service for Economic, Technological and Nuclear Supervision. Supervisory bodies are included in the federal executive bodies and in the executive bodies of the subjects of the Republic of Uzbekistan. At large enterprises and organizations they function according to industrial safety.





The main tasks of forecasting emergency situations are:

- identifying the likelihood of emergencies (hazardous natural phenomena, man-made accidents, environmental disasters, epidemics, etc.);
- identification of the possible scale of emergency situations and determination of the size of disaster zones;
- identification of short-term and long-term consequences in case of emergencies, determination of time intervals;
- assessment of the required forces and means for the liquidation of predicted emergencies.

Issues related to the content of information, the procedure for obtaining it, as well as payment issues at the Republic of Uzbekistan and the territorial levels are determined by the relevant regulatory legal acts within the Republic of Uzbekistan and its territorial subsystems.

Under the identification of the situation is understood the collection and processing of initial data on emergency situations, determining the size of disaster zones and putting them on a map (plan).

Predictive assessment of the situation includes determining the influence of damaging factors of sources of emergency situations on the operation of economic facilities and the life of the population. However, it is not purely descriptive. The forecast always includes options for the action of the rapid reaction forces and the forces to eliminate the consequences of emergency situations. The fulfillment of the planned tasks subsequently ensures minimal losses or eliminates losses altogether.

Identification of emergency situations and assessment of the situation is carried out in three stages:

1. early detection according to the forecast and assessment of the situation according to the possible parameters of emergency situations, taking into account the prevailing average annual weather conditions;
2. identification and assessment of the situation after the emergency;
3. identification and assessment of the actual situation according to intelligence data.

The obtained data are necessary to clarify the previously adopted decisions on the protection of the population and to carry out work to eliminate emergency situations.

### References:

1. Ogli, Z.K.Q. (2022). Ma'lumotlarni Optik Datchiklar Yordamida Yetkazish Va O'lchash Tizimlarini Ishlab Chiqish. Трансформация Моделей





- Корпоративного Управления В Условиях Цифровой Экономики, 1(1), 237-241.
2. Zuhridinov, H. (2022). Elimination Of Various Hazards Through The Use Of Optical Sensors In The Energy, Civilian And Transport Sectors. *Academic Research In Modern Science*, 1(9), 433-441.
  3. Qaxramonjon O'g'li, Z.H.Ma'lumotlarni Optik Datchiklar Yordamida Yetkazish Va O 'Lchash Tizimlarini Ishlab Chiqish. *Iqtisodiyotni Raqamlashtirish Sharoitida Korporativ Boshqaruv Modellarining Transformatsiyasi Xalqaro Ilmiy-Amaliy Anjumani*, 10.
  4. Qaxramonjon O'g'li, Z. H. Hozirgi Zamonaviy Rivojlanagan Davrda Optik Datchiklardan Foydalanib Turli Sohalardagi Havflarni Oldini Olishni O'rganish. *Iqtisodiyotni Raqamlashtirish Sharoitida Korporativ Boshqaruv Modellarining Transformatsiyasi Xalqaro Ilmiy-Amaliy Anjumani*, 10.
  5. Alimovich, M. O., & Qaxramonjon O'g'li, Z. H. Qishloq Xo'jaligida Namlik Datchiklaridan Oqilona Foydalanish Usullari. *Journal Of Advanced Research And Stability*.
  6. Qaxramonjon O'g'li, Z. H. Optik Tolali Datchiklarning Boshqadatchiklardan Foydalanishdagi Afzalliklari. *Образование И Наука В Ххи Веке*, (25).
  7. Qaxramonjon O'g'li, Z. H. (2022). Analysis Of Safety In Construction Sites Using Optical Sensors. *Web Of Scientist: International Scientific Research Journal*, 3(6), 131-140.
  8. O'g'li, Z. H. Q. (2022). Analysis Of Safety In Construction Sites Using Optical Sensors.
  9. Ogli, Z. K. Q. (2022). Hozirgi Zamonaviy Rivojlanagan Davrda Optik Datchiklardan Foydalanib Turli Sohalardagi Havflarni Oldini Olishni O'rganish. *Трансформация Моделей Корпоративного Управления В Условиях Цифровой Экономики*, 1(1), 231-236.
  10. Hakimovich, A. S., & Qaxramonjon O'g'li, Z. H. (2022). Prediction Of Situations That May Occur In Emergency Situations Of Bridges By Means Of Optical Sensors. *Texas Journal Of Engineering And Technology*, 13, 55-59.
  11. Qaxramonjon O'g'li, Z. H., & Hakimovich, A. S. Prediction Of Situations That May Occur In Emergency Situations Of Bridges By Means Of Optical Sensors. 55-59 Page.
  12. Hakimovich, A. S., & Qaxramonjon O'g'li, Z. H. (2022). Analyzing The Results Of Monitoring The Situations That May Occur In Emergency Situations Of Bridges Through Various Optical Sensors. *Global Scientific Review*, 8, 80-88.





13. Abdazimov, S. X., & Zuhridinov, H. (2022). Continuous Monitoring System On Bridges To Prevent Emergencies. *Journal Of Integrated Education And Research*, 1(6), 95-99.
14. Abdazimov, S. X., & Zuhridinov, H. (2022). Review The Bridge Monitoring System On A Regular Basis To Prevent Emergency Situations. *Journal Of Integrated Education And Research*, 1(6), 90-94.
15. Musayev, S. G., & Zuhridinov, H. (2022). Binolarda Kelib Chiqishi Mumkin Bo'lgan Favquloddagi Vaziyatlarda Yong'in Hodisalarini Optik Harorat Datchiki Orqali Aniqlash. *Journal Of Integrated Education And Research*, 1(6), 85-89.
16. Kamilov, X., & Zuhridinov, H. (2022). Calculation Model Of The Efficiency Of The Means Of Protection Against The Electromagnetic Field (By The Example Of A Train Dispatch Workstation). *Zamonaviy Dunyoda Ilm-Fan Va Texnologiya*, 1(6), 183-189.
17. Abdazimov, S., & Zuhridinov, H. (2022). Monitoring Using Fiber Bragg Grid Sensors In Emergency Prevention Of Bridges. *Eurasian Journal Of Academic Research*, 2(11), 1066-1075.
18. Угли Зухриддинов, Х. Қ., & Амиров, М. У. (2022). Анализ Систем Измерения Данных С Помощью Волоконно-Оптических Датчиков. *Innovative Development In The Global Science*, 1(6), 150-158.
19. Gulamovich, M. S., & O'g'li, Z. H. Q. (2022). Pedagog Hodimlardagi Ergonomik Bilim Va Ko'nikmalarini Zamononaviy Oliy Ta'lim Muassasalaridagi Holatini O'rganish. *Ta'lim Fidoyilari*, 28, 21-29.
20. Hakimovich, A. S., & Qaxramonjon O'g'li, Z. H. Consideration Of The Use Of Optical Sensors In Emergency Prevention And Methods For Use In Water.
21. Kurbanov J., Saitov A., Toshboyev Z. Calculation Of The Length Of Cable Lines Used At Stations //Главный Редактор: Ахметов Сайранбек Махсупович, Д-Р Техн. Наук; Заместитель Главного Редактора: Ахмеднабиев Расул Магомедович, Канд. Техн. Наук; Члены Редакционной Коллегии. – 2022. – С. 22.
22. Н.В.Косолапова., Н.А. Прокопенко., Основы Безопасности Жизнедеятельности. Учебник. 2012 Г.

